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CeDEM Asia 2014 Editorial

Hong Kong S.A.R., December 2014

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In recent years, we have witnessed a surge of popular and scholarly interest in the power of social media to challenge authority and promote individual freedom and democracy around the world. Beyond the sensationalist headlines that often speak of “revolutionary impact” of social media, online social connectivity undoubtedly poses a set of historically unique challenges and opportunities related to citizen participation and governance, particularly in the context of societies with limited democratic traditions. Furthermore, the growing momentum behind the open data movement, pushing for greater transparency and increased citizen participation in public affairs, has inspired policymakers, activists, researchers, and technologists to propose new frameworks for sustainable governance.

Following seven successful CeDEM conferences at the Danube University Krems in Austria, and the inaugural CeDEM Asia 2012 in Singapore, we are looking to open a new forum in Asia-Pacific for exchange of ideas, networking, and collaboration on the topics of e-democracy, open government and citizen participation. CeDEM Asia 2014 is hosted by the Department of Media and Communication and the Department of Public Policy at the City University of Hong Kong with generous support from Danube University Krems, Nam Center for Korean Studies (University of Michigan), and Singapore Internet Research Centre (Nanyang Technological University). The conference takes place during the times of significant political turbulence, following months of pro-democracy protests in Hong Kong. Against the backdrop of this civic outpouring, we hope to provide a small contribution towards better understanding of the future of citizen-state relationships and the role that information and communication technologies play in them.

The conference features speakers from academic, civil society, think-tank and consultancy sectors, with an aim of establishing important links among the researchers in Asia, as well as promoting collaboration with the researchers in Europe and the United States. Compared to CeDEM Asia 2012, the conference has grown in size: we have programmed two keynote talks from distinguished researchers in e-government and citizen participation, 30 research and reflection papers, two workshops on open data, and a special panel on the role of social media in 2014 Hong Kong protests.
Research Papers, Case Studies and Policy Papers
Peer Reviewed
Cyberbalkanization
The Local Fragmentation of the Global Village?

Jörg Hebenstreit

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Abstract: There are countless democratic potentials of the Internet especially when it comes to ease and intensify human communication as well as to access a multitude of various information. Nevertheless there is considerable evidence that the use of search engines, Web 2.0 and social media can lead to islands of like-minded people refusing to hear arguments and ideas of their political opponents. This, ultimately, can lead to a dysfunctional public discourse and blocked political systems. So far, this research topic has remained in political science widely neglected, a circumstance the paper is aiming at to resolve.

Keywords: Cyberbalkanization (autonomous and heteronomous), Splinternet, Fragmentation, Personalization, Filtering, Echo Chambers, Group Polarization, Cybercascades, Global Village

It was during the Ottoman rule over extensive parts of South East Europe when the word Balkan was incorporated into Turkish language. Henceforth it should stand semantically for steep and harsh mountain peaks difficult to overcome, but metaphorically also for physical barriers which were (and still are) jointly responsible for ethnical fragmentation in the area of former Yugoslavia. Even today mountain ranges such as Cincar and Vitorog separate the polyethnic region when it comes to political, cultural and social characteristics. In the early 1990s cyber-optimists began to postulate the integrating force of the Internet, mentioning that geographical barriers as spatial distance, time zones and remote areas difficult to access will no longer be obstacles of human interaction and communication. Another notion why the pre-coined concept of the Global Village introduced by Canadian media theorist Marshall McLuhan seemed to be anything but unrealistic. The Internet is going to remove the mountain peaks while enabling humans to inform and interact mutually concerning any topic whatsoever.

Although there can be no doubts whether this potentials do exist, precisely the same potentials can cause fragmentation of human communication. Or in other words: the same potentials can make mountains even higher and valleys even deeper. Numerous questions remain still unsolved: Can we record a cyberbalkanization of the deliberative-democratic public discourse intended by the German political theorist Jürgen Habermas? What does it mean for politics (and our future) in general? Is the public further falling into countless island-like partial publics isolated from each other?

In this paper I want to elaborate on these - in political science widely neglected - questions. Therefore it is necessary to have a multi-perspective view on the topic of cyberbalkanization: the
current state of research, the essence of cyberbalkanization, what causes it and above all the consequences for public discourse, politics and democracy in general.

1. Examining Cyberbalkanization: What is it? Where does it come from? What are the political and democratic consequences?

As will be shown in the following subchapter (2.1) there is no single monograph or paper providing far-reaching examination and assessment of the cyberbalkanization topic in terms of political science analysis, which is why whole chapter 2 aims at resolving this research gap.

1.1. State of Research

So far there is no distinct monograph dealing with cyberbalkanization as a main topic. Although there are still some brilliant books by Robert Putnam, Cass Sunstein and Eli Pariser as well as the splendid paper by van Alstyne/Brynjolfsson, all of them only shed light on specific aspects in a solely theoretical way. Not to mention that the paper of Alstyne/Brynjolfsson (1997) is nearly twenty years old. With respect to the rapid and fundamental changes of the Internet this is some kind of archaic scientific knowledge. Just to illustrate: when the paper was written, Web 2.0 was still unknown as well as Wikipedia (2001) and all of the influential social media sites as Facebook (2004), YouTube (2005) and Twitter (2006). Although Eli Pariser’s *Filter Bubble* monograph was published ‘shortly’ ago (2011) it contains no single mention of the term *cyberbalkanization*. This is all the more astonishing as there are large scales of intersections. What remains also unsolved is a deep analysis of the fragmentation/personalization/filtering trends of the Internet. Yet there is no detailed paper on the political and democratic consequences of cyberbalkanization. Sunstein’s *Republic.com* (2001) and its follow-up *Republic.com 2.0* (2009) touches this issue, but is also somewhat out of date, especially when it comes to new search and filtering algorithms which were applied only recently. Furthermore there is no evidence whether those theoretical assumptions do exist in the empirical world. To sum up the state of research concerning cyberbalkanization is mostly: too theoretical, too old and too unrelated when it comes to political and democratic implications, and as it is the case with Pariser’s book, it remains sometimes within the field of popular science. For the German speaking research landscape it has to be added that there is no single publication (monograph or paper) examining the topic of cyberbalkanization.

1.2. What is Cyberbalkanization?

Marshall van Alstyne and Erik Brynjolfsson, two MIT-Internet theorists, wrote in the early days of the Internet (1997) that information technology has the potential to connect geographically separated people while enabling them to locate interesting and appropriate resources. “Although”, they further write, “these attributes have the potential to bridge gaps and unite communities, they also have the potential to fragment interaction and divide groups by leading people to spend more time on special interests and by screening out less preferred contact.” Moreover they argue that “[w]hen geography no longer narrows interaction people are able to select their acquaintances by other criteria such as common interest, status, economic class, academic discipline, or ethnic
group. In certain cases, the latter can be more fragmented [than before, J.H.].”¹ The former hopes of Internet pioneers that in a digital age citizens of different origins, cultures, societies and political backgrounds will interact in a more heterogeneous, colorful and diverse way seem to be displaced by the same (or even larger) fragmentation in the Web, known as cyberbalkanization. A related notion was forwarded metaphorically by one of the most influential sociologists, Harvard professor Robert Putnam, who stated that “[the] Internet enables us to confine our communication to people who share precisely our interests – not just other BMW owners, but owners of BWM 2002s and perhaps even owners of turbocharged 1973 2002s. […] A comment about thunderbirds in a BMW chat group risks being flamed as ‘off topic’”² Illustrated at a political context, this would possibly mean that progressive voters henceforth only consume progressive news and ally with like-minded progressive citizens, while conservative voters only read conservative news and engage only with conservative citizens. In practical terms, real world (inter)actions compel us to deal with diverse, unfamiliar, contradicting or even hostile issues, whereas citizens in the digital realm now can choose their interlocutors and topics they are interested in, based on criteria other than geographical location. For that reason the global village would be only one potential outcome of the evolving Internet, whereas today a brief look at reality indicates that the notion of the global village has to be better replaced by the fragmented global village. Nowadays there is strong evidence that the preferences of citizens using the Web in terms of social, intellectual and political affiliations are far more balkanized than before – the former geographical fragmentation went online. When someone skims through a newspaper he may stumble upon stories he otherwise would not have selected, whereas today a bookmark in your explorer leads you directly to the sports section of let’s say the New York Times. All the front cover stories and the ones you see while flipping through the pages are disappeared – in the digital age you only see what you want to see.

Although the term cyberbalkanization was first coined in 1997 by van Alstyne and Brynjolfsson it was Robert Putnam who defined the term in his renowned monograph Bowling Alone (2000) and promoted it to a wider audience. According to Putnam the Harvard political scientist “Cyberbalkani-zation [is, J.H.] a phenomenon in which people seek out only like-minded others and thereby close themselves off from ideological opposition, alternative understandings, and uncomfortable discussions.”³ A way shorter but nonetheless apt definition was made by Marco Furini et al., who defined cyberbalkanization as a phenomenon “which indicates the division of users into groups that do not interact with each other”⁴ and therefore address, as well as Putnam, the notion of an ideological segregation of Internet users.

1.3. What causes cyberbalkanization?

Up to now cyberbalkanization was only understood as a human act driven and guided by interest and personal affiliations. But since 2009 Google, Facebook, Amazon and almost all high-traffic websites apply filter algorithms which provide search results that are personally tailored for every single user. Even if an user wants to see a broad variety of information, search results or products, they are filtered – without the user’s consent (and knowledge) – in a way, that he will possibly see political information that fit into his political world-view, products that he is probably interested in and search results that are adjusted toward topics he entered via keyboard weeks, months or even years before. This recent development inspired me to propose to differentiate the concept into autonomous and heteronomous cyberbalkanization. Autonomous means that the Internet users decide for themselves which topics, contents and people they want to follow, whereas heteronomous cyberbalkanization describes fragmentation of citizens based on search algorithms that produce personally tailored results. Hereby the sovereignty to select from a certain offer was transferred from the Internet user towards code based search algorithms. Particularly alarming is the fact that most of the users do not know that they actually exist and that nobody (except the programmer) knows how they work. The following figure displays the proposed differentiation.

![Diagram: Autonomous vs. Heteronomous Cyberbalkanization](own illustration)

**Figure 1: Autonomous vs. Heteronomous Cyberbalkanization (own illustration)**

1.3.1. Autonomous Cyberbalkanization

During the course of the late twentieth and early twenty-first century the market for news and information perfected more and more. Especially with the rise of the Internet, consumers were able to select exactly what they want. Since the power to filter is virtually unlimited citizens can determine in advance what they will and will not encounter. Over time information consumers can build their personally tailored communication universe. As Cass Sunstein in *Republic.com* remarks citizens of certain interest and political affiliations tend to choose sites and discussion groups that support their convictions and “[t]hus, particle physicists, Star Trek fans, and members of militia groups have used the Internet to find each other, swap information and stoke each other’s passions. In many cases, their heated dialogues might never have reached critical mass as long as geographical separation diluted them to a few parts per million.”5 The significance and influence of the mass media decreased over time especially due to a process called disintermediation.

Disintermediation in media studies refers to “eliminating steps between a buyer and a seller”6 or simply the elimination (cutting out) of the middlemen. As Eli Pariser pointed out in his book *The

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Filter Bubble: What the Internet is Hiding from You all of a sudden “you didn’t have to rely on the Washington Post’s interpretation of the White House press briefing – you could look up the transcript yourself […] the middleman dropped out […] the future the story says, is one in which we go direct.”

Disintermediation therefore is a very efficient and democratic process with power-eroding attributes. In the digital age Internet users decide for themselves which news and information they want to follow. So for example on Facebook they decide independently to follow Al Gore and The Climate Reality Project (CRP) while choosing in a plurality of information. Contrary to the previous logic of media use, where one has to pick the most relevant and interesting content out of the mentioned plurality of information, nowadays all contents are personally tailored in a way that MIT professor Nicholas Negroponte describes as Daily Me. Progressive voters, as mentioned earlier, henceforth only consume progressive news, while conservative voters only read conservative ones. The process of disintermediation allows us to have access to whatever we want – information filtering and fragmentation is user driven. This being said, it has to be added that in the Internet age the whole term media has to be reconsidered. The Latin origin of media means something like middle layer, placed between us and the world, but the rise of the Web not just eliminated intermediaries (the middlemen), but rather fundamentally changed their essence and nature.

1.3.2. Heteronomous Cyberbalkanization

On December 4th in 2009 Google on its official blog posted a contribution stating: “Today we're helping people get better search results by extending Personalized Search. [...] Now when you search using Google, we will be able to better provide you with the most relevant results possible. For example [...] when I'm looking for news about Cornell University's sports teams; I search for [big red]. Because I frequently click on www.cornellbigred.com, Google might show me this result first, instead of the Big Red soda company or others.”

What seemed to be (and actually is) very user friendly comes to a considerable cost. For example a search query for global warming and Al Gore’s The Climate Reality Project produces fundamental different results from user to user, whereby even the number of found entries can differ considerably. The sovereignty to select from a certain offer therefore was transferred from the Internet user towards code based search algorithms. MoveOn’s Eli Pariser frames this development as Filter Bubbles. The disturbing fact, Pariser correctly summarizes, is not only that the filter bubble is invisible, but more strikingly “you don’t choose to enter the bubble. When you turn on Fox News or read The Nation, you’re making a decision about what kind of filter to use […] you may think you’re the captain of your own destiny, but personalization can lead you to […] informational determinism in which what you’ve clicked on in the past determines what you see next.”

In order to better understand what consequences heteronomous filtering has it is necessary to understand how Google and Facebook filter technically. In 2009 Google said that they use more than 200 (!) different signals to personalize search results of users, meaning that Google takes every

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signal about us it can get. The search engine monopolist differentiates between individual and non-individual as well as online and offline click signals.

Table 1: Online and offline click signals (...at least those who are verified)

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<th>Offline Click Signals</th>
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<td>search history, information of other Google services as G-Mail, GoogleDocs, Picasa and further Google lock-in products, etc.</td>
<td>location (neighborhood), browser and computer type, language of the operating system and 54 other, yet unrevealed, signals</td>
</tr>
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Even if you are not online and you are using your personal computer for the first time Google analyses according to one of the companies engineers 57 offline click signals to personalize your results. Your neighborhood or block\(^\text{10}\) tells the more than one hundred thousand lines long code something about the milieu you are living in, your browser gives indication about how old you are and to some degree your political affiliation and the time between the entering of a search query and clicking on a specific result predicts (to a certain extent) your personality. Online click signals on the other hand are mainly assessed via the usage of other Google products and above all your past search queries, resulting in that “[i]f we never click on the articles about cooking or gadgets, or the world outside our country’s borders, they simply fade away.”\(^\text{11}\) And although no one knows the exact code of Google’s search algorithms, it has been shown empirically how far-reaching the consequences are. Feuz et al. state: “[w]e have produced evidence […] that Google is actively matching people to groups, which are produced statistically, thus giving people not only the results they want (based on what Google knows about them for fact), but also generates results that Google thinks might be good to users (or advertisers) thus more or less subtly pushing users to see the world according to criteria pre-defined by Google.”\(^\text{12}\)

To sum up: in 2014 there is no standard Google anymore – a diagnosis that is also true for Facebook, YouTube, Amazon as well as all of the most frequented websites.

Contrary to Google the Facebook personalization mechanisms are way simpler. While Google has to interpret search results and your former online activities, Facebook just asks people what they like and makes use of the existing social network connections you are interwoven in. Based on what you like, comment, share or people you interact, Facebook is personalizing your News Feed (the constantly updating list of stories in the middle of your homepage). Like Google, also Facebook uses a specific filter algorithm (EdgeRank) in order to personally tailor what you will encounter in your News Feed. If you, as e.g. being a liberal, click constantly Like on liberal pages and on your liberal friends links as well as commenting and sharing liberal stuff, over time your news feed will only display liberal content, whereas your conservative friends and stories will disappear.

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\(^\text{10}\) This is better known as the k-NN-algorithm (k-nearest-neighbor), which aims at predicting e.g. articles, music and movies you probably like, based on users that resemble you in a certain way.


Ending this chapter it needs to be stated that there are good reasons to ask whether autonomous cyberbalkanization will be replaced by heteronomous cyberbalkanization in the future. Noting that the personalization and filtering age had just begun it is anything but certain that in the future we, as users, will have the sovereignty to see what we want to see while exactly knowing what we are looking for. Moreover the above made definitions of cyberbalkanization are in terms of autonomous and heteronomous cyberbalkanization no longer in tune with the contemporary situation. That is why I suppose to re-define cyberbalkanization as a phenomenon which indicates the division of like-minded users into homogenous groups that do not interact with each other’s due to user driven self-filtering (autonomous cyberbalkanization) or algorithm driven filtering which is unintended by the user (heteronomous cyberbalkanization).

Up to now filtering was displayed in this paper as an evil and dangerous effect, but of course filtering is necessary and inevitable. As a matter of fact nobody can read, listen or see anything. A notion that is perfectly illustrated by Google’s CEO Eric Schmidt who pointed out in 2011 that in order to record all human communication since the beginning to 2003, free space with the size of five billion GB is needed – a volume of data that now is produced within two days (among those are 900,000 blog posts, 50 million tweets, 60 million Facebook status updates and 210 billion sent e-mails every day). In light of the frequently mentioned information overload and human bounded rationality Steve Rubble quite rightly is warning of a smouldering attention crash.

1.4. What political consequences does Cyberbalkanization have?

Nevertheless filtering especially in terms of heteronomous cyberbalkanization is a danger, because most of the users are not aware that the filters even exist, and if they are aware they do not know how they work and therefore why they see what they see or why they do not see what they do not see. But also autonomous cyberbalkanization has far reaching effects on politics and democracy as will be demonstrated in the following chapter.

1.4.1. Of Echo Chambers, Group Polarization and Cybercascades

To assess the question “What effect cyberbalkanization has on politics and democracy in general?” the concept of echo chambers proposed by Harvard Internet theorist David Weinberger is ideally to begin with. Echo chambers, Weinberger states, are “those Internet spaces where like-minded people listen only to those people who already agree with them.” Therefore in an echo chamber we are surrounded by ideas and opinions which are already familiar with us. News in an echo chamber feel like “political punctuation marks that don’t really shake our schemata but feel like new
information”, making us overconfident that our political assessments and valuations are the only correct. Empirical confirmation of the echo chamber concept was contributed in a study by Arthur Edwards who examined the inclusion and exclusion of dissenting voices in an online forum about climate change. The first conclusion Edwards has drawn in his study is “that even a well-intentioned forum like Climategate.nl seems to move in the direction of an echo chamber gradually over time. The analysis shows that Climategate.nl was never (completely) balkanized. However acts of exclusion and self-exclusion did occur in the course of time.” Another empirical proof can be found in the paper of Lesley Wexler et al. who documented in a random study of sixty political sites, that only nine (15 per cent) provide links to sites with opposing views, whereas thirty-five (almost 60 per cent) provide links to like-minded sites. Interestingly, those opposing pages which were linked, were linked in order to illustrate how dumb and contemptible the views of the adversaries really are. A societal fragmentation in this way will cause diverse groups to polarize even more, eventually resulting in excessive confidence, extremism, hatred and violence. Such an outcome of discussions among like-minded people can be characterized described as group polarization. According to Sunstein group polarization can be described best as a phenomenon that “after deliberating with one another, people are likely to move toward a more extreme point of view in the direction to which they were already inclined. With respect to the Internet, the implication is that groups of people, especially if they are like-minded, will end up thinking the same thing they thought before – but in more extreme form, and sometimes in a much more extreme form.” Political hardliners or extremists for that reason will become even more extreme after they talk to like-minded people. There are various psychological explanations for this tendency of humans: 1. a limited argument pool, 2. repeated exposure to (nearly) the same information, 3. the reasonable suggestion that people want to be perceived favorably by other group members (see also: spiral of silence proposed by German sociologist Elisabeth Noelle-Neumann), which is why people in minority positions silence themselves by potentially excising the positions from others over time and 4. biased assimilation which “means that people assimilate new information in a selective fashion. When people get information that supports what they initially thought, they give it considerable weight. When they get information that undermines their initial beliefs, they tend to dismiss it.”

Group polarization is anything but a theoretical concept – it was proven by Sunstein, who worked extensively on this topic in multiple empirical studies which shall be characterized shortly:

- Behaviour of federal judiciaries: a study had shown that Republican appointees to the federal judiciary show far more conservative voting patterns “when they are sitting on a panel

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18 Ibid., p. 3 as well as both Republic.com publications in general.
consisting solely of Republican appointees [...] and Democratic appointees show far more liberal voting patterns when they are sitting on a panel consisting solely of Democratic appointees.”  

- French survey about Presidents and US Foreign Aid: in an experiment in France a number of citizens were assembled in small groups to exchange their views about the job approval of the President as well as the intention of the U.S. with respect to foreign aid. Before the conversation began the French citizens were pleased with the president and suspicious when it comes to the U.S. Interestingly, after the deliberation those who liked the President ended up liking him significantly more, while the distrust and suspicion towards the U.S. was replaced by far greater distrust.  

Keeping in mind autonomous and heteronomous cyberbalkanization the Internet has to be understood as breeding ground and accelerator for polarization, political gridlock and extremism, particularly because like-minded people are enabled to interact and deliberate with greater ease and fewer obstacles. A crucial factor behind the growing number of extremist groups in the Internet is simply the fact that it enables those groups to come into contact, share information, discuss contentious (conspirative) theories and hereafter organize certain actions. Additionally group polarization can be amplified by cyberecascades what describes the tremendously fast spreading of information, irrespective whether the information are true or false. There is a considerable risk of a situation where thousands, millions or even tens of millions of people are predominantly listening to amplified echoes of their own voices. A cyberecascade situation of this kind is likely to produce far worse than mere fragmentation.  

1.4.2. The Endangered Public Discourse

German political theorist Jürgen Habermas is presumably the most renowned proponent of the concept of deliberative democracy. Deliberation, as core concept of this theory, essentially means something like argumentatively well-reasoned, communication-oriented consultation. By the argumentative exchange of information, stances and motivations it is hoped that a public consensus – including all citizens of a society – can be reached. Preconditions for a functioning deliberative democracy are: 1. a public discourse (and space where it can take place) where 2. all citizens possess the same and equal chance to participate in, 3. the absence of external and internal constraints (see also: coercion), resembling lastly 4. the aspired ideal speech situation. All preconditions of the deliberative democratic concept are potentially fulfilled by the Internet. Nevertheless public (online) discourse on platforms, in fora or whatsoever are not working due to specific causes – one substantive reason is to be seen in (autonomous as well as heteronomous) cyberbalkanization.  

Contrary to the hope that citizens with various political affiliations from the left, center and right will assemble in some kind of public Internet fora, in the cyberbalkanized Internet age they rather assemble in insulate enclaves (see also: enclave deliberation), in which like-minded citizens speak to

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each other. Although it is easier as never before to bring a group of different people together in order to fulfill their civic duty to meet and consult others – e.g. the American constitution is set up in a way that diverse people are speak to each other – it is to a large extent because of cyberbalkanization that it does not happen. Pariser correctly observes: “as personalization advances it’ll become harder for any given group to reach a broad audience. In some ways, personalization poses a threat to public life itself.” and further “[unlike deliberative democracy, J.H.] personalization has given us something very different: a public sphere sorted and manipulated by algorithms, fragmented by design, and hostile to dialogue.”24 This is not only intended by citizens itself (as it would be the case in terms of autonomous cyberbalkanization), but also unintended, with citizens not knowing what actually is going on (heteronomous cyberbalkanization). The latter case can be illustrated with the help of the San Francisco based Rapleaf corporation – the corporations business is to correlate Facebook social graph information (what you like, share and comment on at Facebook) with voting behavior, with the result that you will see political ads that probably will interest you most, simply based on your behavior on Facebook.

While writing this paper I asked two friends (one progressive and one conservative; the first placed himself on a scale ranging from 1 to 10, where 1 is far left and 10 far right, at spot 2 while the latter at spot 8) to send me two Google screenshots of the search query “Ukraine” made at the same time.

![Google split screen with the search query “Ukraine”](own data)

Figure 3: Google split screen with the search query “Ukraine” (own data)

What you can actually see is that they not just only received completely different search results (with except from the Ukraine-Wikipedia article), they moreover got different pictures, advertising and even a different numbers of search results (a difference of 15 million found entries (!)). Particularly interesting is the forecasted fact that progressives will get progressive news, and conservatives, conservative ones. Whereas my progressive friends first results were articles by the German newspaper Spiegel (Online), which is left-leaning, my conservative friends first results were articles by FOCUS Online and DIE WELT, two newspapers that are predominantly right-leaning. The ‘hypotheses’ that there is no standard Google anymore can therefore be verified as

well as the concept of *echo chambers*, as information cocoons in which people are listen to information and arguments they are already familiar with.

Another related theory related to direct democracy is Benjamin Barber’s *Strong Democracy* concept. Whereas representative democracy - having several constructional defects - is not suited for active citizen participation, *Strong Democracy* aims at incorporating every citizen. In his monograph it is particularly his concept of politics, which can be instrumented in order to highlight and indicate the harmful side effects of cyberbalkanization. The term *politics* consists, according to the political theorist from the University of Maryland, of seven different components: *action, publicness, necessity, choice, reasonableness, conflict* and the *absence of an independent ground.*25 Relevant for this paper are especially the components *conflict, necessity* and *action*. *Conflict* in political debate is necessary (otherwise politics would be superfluous), but on the other hand there is a need for *choice* and *action* as well. Choice in the political arena “is to speak about choosing – about deliberating, determining, and deciding. […] If action is to be political, it must ensue from forethought and deliberation, from free and conscious choice. […] To speak of those who choose with deliberation […] is […] to speak of citizens.”26 But in the age of cyberbalkanization, as it is mentioned above, public deliberation – although easier than ever before – remains enclave deliberation. Without *choice* and the *necessity* to find a consensus, democracy is suffering and will become a reform-blocking political system – in light of cyberbalkanization a reinforcing and likely trend. Nevertheless a democracy requires “citizens to see things from one another’s point of view, but instead we’re more and more enclosed in our own [filter, J.H.] bubbles. Democracy requires a reliance on shared facts; instead we’re being offered parallel but separate universes.”27 To reach consensus and understand other people’s arguments it is further necessary that citizens are exposed to materials that they would not have chosen in advance. “Unplanned, unanticipated encounters are central to democracy itself. Such encounters often involve topics and points of view that people have not sought out and perhaps find quite irritating. […] They are important partly to ensure against fragmentation and extremism, which are predictable outcomes of any situation in which like-minded people speak only with themselves.”28 Common experience, meaning to understand the stance of others, is an indispensable ingredient for finding a consensus. Citizens have to reach beyond their (often somewhat) narrow horizon – otherwise the ideal of deliberative, direct or strong democracy will be compromised.

### 1.4.3. Normative Considerations

Apart from hard empirical facts, there are also normative components of democracy at risk, as for example: *civic virtue, transparency* and *creativity* (*serendipity*). Beginning with the first concept, in the age of cyberbalkanization it seems that fragmentation and personalization algorithms are humiliating *civic virtues* such as curiosity to learn about others arguments, self-criticism and open-mindedness. “Making everything more personal, we may lose some of the traits that made the Internet so appealing to begin with.”29 As one of the most famous quotes by British political

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26 Ibid., p. 126.
philosopher John Stuart Mill accurately states: “It's hardly possible to overstate the value [...] of placing human beings in contact with other persons dissimilar to themselves, and with modes of thought and action unlike those with which they are familiar. Such communication has always been one of the primary sources of progress.” Remarkably the part “in the present state of human improvement” is, considering the digital revolution and its consequences, today more relevant than ever before. When people come into contact with arguments and information they had not selected earlier, their attitude towards specific topics may change, while at least having a rough impression of what their fellow citizens are thinking. Pariser criticizes this development by means of the comparison that American Idol may unite a lot of U.S. citizens around the same fireplace, but it does not call out the citizens and therefore the civic virtues in them.\(^\text{30}\) It seems that freedom of choice may not in every instance be good for democracy.

Secondly, Internet users should be gravely concerned about the intransparent and mostly untraceable search algorithms and filter bubbles. Filter bubbles are invisible, what not means that they do not exist. It should be troubling that the process of personalization is largely invisible to users and therefore is out of control. Most people are not aware, that there is no standard Google, Facebook or Amazon anymore. As a normative standard it would be desirable that those who filter will make it transparent and traceable. Users should know how filter algorithms work.

As last normative aspect creativity (or serendipity - an unintended but fortunate experience) shall be addressed. If personalization will be more and more enforced (what everything indicates) humans are less likely to encounter phenomena that were not intended and even not foreseen, but are mind-blowing and may shape our opinion of the world. Often splendid ideas are generated while coming into contact with different people, cultures and arguments we are unfamiliar with – which is why cyberbalkanization and personalization are anything but engines of inspiration and creative thinking. “Google is great at helping us find what we know we want, but not at finding what we don’t know we want.”\(^\text{31}\)

2. The Broken Promise: E Pluribus Plures instead of E Pluribus Unum?

“Technology is neither good or bad, nor is it neutral” – a sentence better known as Kranzberg’s first law. No sentence could be more appropriate to describe the consequences of cyberbalkanization when it comes to the political use of the Internet. For sure filtering is regarding the constant information overload of too much to read, too much to watch or too much to listen needed more than ever before. Nevertheless empirical measurement of cyberbalkanization (yet being at developmental stage) had proven the fact that autonomous as well as heteronomous cyberbalkanization can lead to an even more fragmented and balkanized global village. The hope of bringing people from different countries, cultures, social backgrounds and above all political spectrums together has remained unfulfilled. The global village, at least yet, is a broken promise. The Latin phrase E Pluribus Unum (out of many, one), which is decorating the seal of the United States and which would be also a perfect sub-phrase for the hopes that went hand in hand with the global village concept, has to be replaced by the E Pluribus Plures (out of many, many) phrase. As the examination of the Climategate.nl forum, Wexler’s study of 60 political sites and their linkage to political opponents sites, Feuz paper on Google’s personalization mechanisms and even my – so to

\(^{30}\) Ibid., p. 75.

say – micro split-screen study of two friends with different political affiliations has shown, that the Internet has neither transformed towards a global village, nor has it fostered diverse public discourse. However, the cyberbalkanization/personalization/fragmentation/filtering-age has just begun. Yet, there are scarcely any empirical evidences and few monographs discussing it – a fact why this paper was always addressing Cass Sunstein and Eli Pariser, because they are the only ones who thought about the topic extensively. More effort has to be invested in assessing the real effects of cyberbalkanization in terms of political discourse and the formation of attitudes. Since there is consistent evidence that more and more young citizens are forming their political views at social networking sites (as Facebook, YouTube, Twitter) or in general online, and further considering the development that the difference in evaluating the quality of a blog contribution and a New York Times article is way smaller than one would think, the only thing remaining for the research branch cyberbalkanization to be said is: fiat lux!

3. Epilogue: Measuring Cyberbalkanization

I assume that one of the reasons why there is so little research literature concerning cyberbalkanization is the fact, that it is very hard to measure and to assess it empirically. Many search algorithms are secretly treasured within the headquarters of Google, Facebook & Co. Nevertheless research aiming in the elaborated question should consist of qualitative and quantitative (mixed-methods approach) avenue. Besides social network analysis and sentiment analysis tools as part of the quantitative approach, qualitative tools like case studies regarding specific contentious topics (left-right; democratic vs. republican; global warming, social welfare, tax policy, education, etc.) might be helpful. Moreover I suppose to introduce new Internet research methods as large scale split-screen comparisons in connection with individual’s political attitudes (concerning the proposed topics) or measuring the variety of political information (sources) on a left-right-scale. Ideally the heterogeneity of information could be quantified in a single index. As Feuz et al. note in the summary of their paper “unless we can update our research methods and tools, we cannot adequately address the social and political issues connected with personalization”, especially because “personalization makes inter-subjective testing of hypotheses impossible. The dynamism of search engines makes this even more complex over time.”

References


Further Readings


About the Author

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Jörg Hebenstreit received his B.A. (Political Science/Intercultural Business Communication) as well as M.A. (Political Science) from the Friedrich Schiller University Jena. His bachelor’s thesis covered the question whether the democratic potentials of the Internet had a democratizing effect during the issue advocacy of Barack Obama’s health care reform in 2009 and 2010. The work has won the Microsoft Europe Call for Paper called “Internet and Democracy” in 2013 and was rewarded with 5,000 Euro. Currently he is teaching Quantitative Methods, Political Theory and topics related to Internet and Democracy at the department of Political Science at the Friedrich Schiller University Jena. He started working on his PhD thesis in November 2013.
Political Communication in Malaysia

A Study on the Use of New Media in Politics

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Abstract: To gain and retain political power, politicians use the media to persuade the masses to vote and support them, especially during elections. Barisan Nasional (BN) has successfully used the media to maintain its power for the past 57 years, making it the longest-serving elected government in the world still currently in office. But the emergence of the Internet has challenged the status quo. The purpose of the research was to investigate how new media has influenced the political process and communication strategies in Malaysia and its impact on the political landscape. The researcher interviewed 19 respondents: politicians, bloggers and media consultants from both sides of the political divide. The findings showed that new media, especially Web 2.0, has expanded the public sphere and enabled more Malaysians to participate in the democratic process - through information dissemination, mobilization or crowd-sourcing. However, the cyber-war between BN and the opposition Pakatan Rakyat (PR) has caused confusion and disinformation - affecting the quality of democratic decision-making. Nevertheless, new media has enabled more voices to emerge and challenge the political hegemony. Communication is increasingly two-way, with the public expecting greater engagement and interactivity with their political representatives.

Keywords: political communication, Malaysia, Web 2.0, social media, democracy, campaign

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Politics is basically a decision-making process and a struggle to gain access to decision-making positions and resources (Louw, 2010). This involves the ability to manipulate the machinery of language making i.e. media. To gain and retain political power, hegemony has to be built (Gramsci, 1971) whereby masses need to naturally accept the dominant group(s) leadership, moral codes, practices and discourses. Media and education systems help to build consent, legitimacy and support for group interests.

Previously, mass media consisted of newspapers, radio and television. When Internet emerged, these became known as traditional media in contrast to new media. While the former operated on a centralized model, the latter is different. Because of its decentralized structure, governments find it hard to control online news and information flow, which affects the political power of authoritarian governments. In Malaysia, the incumbent Barisan Nasional (BN) has successfully maintained political power since independence due to its tight control of traditional media,
making it the longest-serving elected government in the world still in office. But the emergence of new media has slowly eroded its grip on power, which resulted in the “political tsunami” during the 2008 General Elections (GE) and the increase in popular vote (51%) in the recent 2013 GE.

Thus, the research has two aims: to examine how the Internet has influenced the Malaysian political landscape and the communication strategies of politicians and their parties. The researcher interviewed 19 politicians, bloggers and media consultants from both sides of the political divide over a period of three months. The findings revealed the empowerment of citizen participation in Malaysian politics. Politicians need to be interactive, responsive and accountable to their more politically-aware constituents. Nevertheless, the cyber-war between BN and the opposition Pakatan Rakyat (PR) has led to the online circulation of lies, half-truths and gossip, leading to confusion and disinformation which affects the quality of democratic decision-making.

1. Review of Literature

1.1. Press Freedom, Public Sphere, Public Opinion and Spiral of Silence

The idea of a free press first came due to commercial and economic changes in the late 19th to 20th centuries. The global, largely unregulated Internet is a symbol of the modern free press which allows for diverse opinions. The media should not espouse a singular view or state propaganda only; any centralized media control represents loss of freedom. This idea is linked to the free market (Curran, 2000) and marketplace of ideas where contradicting views compete for public attention without state interference (Zaller, 1996). The media is a public space for groups and individuals to express their views; it is through public exchange of argument and counter-argument that truth eventually emerges (Mill, 1859 reprinted 1974).

Public opinion is often assumed to be majority view freely formed through rational evaluation of arguments in the public sphere. Habermas (1989) said that free and wide-ranging expression of opinion is integral to the functioning of a public sphere. Public opinion can impact power relations, said Noelle-Neumann (1984). Her spiral of silence argues that fear of isolation causes people to follow the perceived majority opinion, making them less willing to express their own views. But when they perceive their opinion is acceptable, they are more likely to express it.

1.2. Direct communication, Interactivity, Accountability

Previously, elite gatekeepers and institutions of power monopolized and controlled traditional media, with citizens being passive information recipients. The Internet offered potential for greater exchange and deliberation, enabling people to be more involved and interactive by creating new networks of information. People bypass traditional media gatekeepers to obtain information directly about political, social and economic life (Press & Williams, 2010) as well as communicate, connect and deliberate online directly with governments, parties, social movements and political leaders (Negrine, 2008). Bailey (1999) said that the Internet’s full interactive potential restores some political power to the people as they are now part of politics, policy- and decision-making.

The media is expected to perform its Fourth Estate watchdog role by keeping government and political institutions accountable by monitoring their activities and investigating possible abuse (Curran, 1991) because citizens lack resources to monitor their leaders (Iyengar & McGrady, 2007). The media’s role is to provide a forum for citizens to choose between those running for office and the incumbents – subjecting them to accountability (Street, 2001). The Fifth Estate, which includes
bloggers, citizen journalists and social media who report via the Internet and related digital media, also assist in ensuring such accountability (Dutton, 2009; Newman, Dutton, & Blank, 2012).

1.3. Cyber-Communities and Crowd Power

New media is useful for mobilization in terms of networking, recruitment, agenda setting and action. Unlike Web 1.0 with its limited linear features, Web 2.0 facilitates interaction, discussion and links with groups and individuals via interactive and overlapping networks (Anderson, 2007). Bloggers disseminate information and gain followers who forge new communities that may be spurred to take offline action (Weiss, 2012). According to a study conducted by Kluver and Soon (2007) on Internet and online political communities in Singapore, political parties and political expression groups use hyperlinks to create and forge alliances with each other, forming like-minded communities. New media technology enables Singaporean political groups to circumvent certain controls to advance their cause, which they may not be able to fulfill in the offline world due to stringent rules and regulations, resulting in “a subtle form of cyber-activism” (Kluver & Soon, 2007, pp. 258-259). Among Anderson (2007)’s six big ideas in Web 2.0 is the ability to harness not just crowd power but collective wisdom (O’Reilly, 2005). Crowds can be mobilized via interactive environments like forums (Cox, 1999). Other than groups, political parties or organisations, Web 2.0 allows individuals to gain access to crowds. This bottom-up capacity is a potential threat as it implies an alternative mobilizing source (Lilleker & Jackson, 2011).

1.4. Obstacles to E-Democracy

One obstacle is the fact that people sample selectively, often limiting exposure to agreeable news or sources and walling themselves from incompatible topics and opinions (Sunstein, 2001). This reduces engagement with alternative views and undermines shared public forums (Sunstein, 2001), resulting in a less informed and more polarized, fragmented electorate (Rheingold, 2002). Also, not all Internet users are interested in politics, preferring business, games and entertainment. Information then flows in two-steps – through opinion leaders like family members, friends and colleagues who are politically inclined (Lazarsfeld, Berelson, & Gaudet, 1944, reprinted 1968).

There are also theoretical difficulties within democracy that cannot be solved by technology (McLean, 1989). In the proportional representation system, electoral system manipulation can affect the result. New media is not a panacea to democracy’s inherent problems despite positivist claims. The public sphere model of politics and public deliberation has never existed beyond small, elitist collectives (Behabib, 1993; Calhoun, 1988; Fraser, 1992; Habermas, 1996). Democracies today are large and complex, with multi-layered systems of government, civil society and a multi-dimensional policy space (Bennett, 2003; Crouch, 2004; Dalton, 2004; Hay, 2007). Margolis, Resnick, and Wolfe (1999) proposed the “normalization” hypothesis: that the Internet does not necessarily help smaller groups compete with larger interests on an equal basis. Larger organizations can dominate cyberspace due to better financing and resources (Margolis & Resnick, 2000).

Media outlets in most democracies are privately-owned and market-driven, so any idealized notion is questionable (Calhoun, 1992; Curran, 2002; Garnham, 2007; Sunstein, 2001; Thompson, 1995). Other than publicly-funded media, most corporations focus on profit, not on facilitating wide access, engagement and deliberation. Parties, politicians and government institutions have also been slow to adopt new media as tools for deliberation, using it mainly for service delivery and an additional one-to-many promotional medium (Chadwick, 2006; Gulati, 2004; Jackson, 2003;
1.5. Politics and New Media in Malaysia

New media’s political impact can be analyzed from three aspects: Information, identity-building and mobilisation (Weiss, 2012). Firstly, new media has broken traditional media’s monopoly by disseminating previously inaccessible news. Alternative online news websites, blogs, tweets and social networking sites enable some form of basic investigative journalism (Weiss, 2012). Secondly, new media allow citizens to adopt new collective identities: cognitive, moral and emotional connections with a broader community, category, practice or institution (Poletta & Jasper, 2001). Malaysian cyber-communities can transcend ethnic and religious barriers. Lastly, groups can also be mobilised in terms of networking, recruitment, agenda setting and action (Weiss, 2012).

The Malaysian government has a two-pronged approach to deal with new media: making better use of tools; and cracking down on online troublemakers (Weiss, 2012). After being caught off-guard at the 2008GE, BN leaders have focused on establishing their online presence through websites, blogs or SNS, using Twitter and Facebook to court young voters. The second strategy is cracking down on dissident media activism. Politicians and ordinary Malaysian Netizens have been detained, charged and sentenced under various laws for various online content posted. The Internet on its own is unable to subvert authorities; but when used by an organized force, it can help push for change (Rodan, 2005). New media spurs political action when people become inspired to move into offline action. It enables people to be aware of key issues, offers ways to mobilise and boosts campaign reach and efficacy. However, it may not transform the communal structure of Malaysian politics due to linguistic silos: mono-lingual blogs and online news websites (Weiss, 2012). New media could just be another area of political contest (Liow & Pasuni, 2010).

2. Methodology

The researcher conducted in-depth interviews from January to March 2013 with 19 respondents – six politicians from BN and PR; seven socio-political bloggers and six media consultants. In-depth interviews are useful qualitative techniques to answer the why and how questions (Rubin, Rubin, Haridakis, & Piele, 2010) and to understand the respondents’ experience, knowledge and perspective that are central to the research (Lindlof & Taylor, 2011). The researcher identified them based on her observations of their media use and their reputations as Net-savvy communicators. Selected interviewees have the relevant fountain of knowledge due to their expertise or knowledge in a skill or discipline, or their involvement in a scene or critical events. Snowball sampling was used by asking the interviewees to recommend other potential respondents. In this study, the researcher used partially-structured interviews as the objective was to understand the respondents’ frame of meaning and viewpoints. Partially-structured interviews gave the researcher and respondents a framework, but allowed the freedom to explore new areas. The interviews were recorded, transcribed and analyzed. The researcher identified key elements and recurring themes in the data and categorized them. Using grounded theory analysis (Glaser & Strauss, 1967), also known as the constant comparative method, the categories were compared and re-categorized until they reached a saturation point.
3. Findings and Analysis

3.1. Accessibility and Power

Traditional media is a valuable resource for authorities to maintain their interests and restrict alternative voices. But this power is being challenged by new media. Opposition politicians and bloggers in this study said they were more reliant and adept at using new media due to limited access to traditional media. Almost all respondents credited new media as a factor that helped the opposition make huge gains during the 2008 GE. One blogger said that “in the 2008 General Election, you saw more people politically aware and conscientized [sic]…” BN was then overconfident about its traditional media control and ignored new media. Another blogger recalled, “There was [sic] very few blogs supporting the government…at that time and the opposition took full advantage…[and] used the alternative media to the maximum.” The BN has since caught up after the 2008 GE, said one politician, adding that, “it’s a [sic] equal share of the [online] media now…Now it’s 50-50.” Prime Minister Najib has the most number of Twitter followers, he said.

Online competition has caused traditional media to be more open to non-establishment views. Opposition PR political leaders participated in radio talk shows and newspaper vendors were more willing to distribute party newsletters. This trend continued in 2013 GE with some private traditional media adopting a business model of balanced coverage. Malay-language newspaper Sinar Harian accepted an advertisement from opposition Democratic Action Party (DAP), while radio station Business FM (BFM) and cable TV Astro Awani gave room to alternative voices. It made good business sense to be unbiased and objective because of market demands. The Internet has pushed traditional media to evolve out of its comfort zone.

3.2. Democracy, Press Freedom, Public Sphere

The findings showed that traditional media’s bias against the opposition affected its proper democratic function. Traditional media allowed BN politicians and socio-political bloggers easy access while PR politicians and bloggers experienced blackouts, limited or negative coverage. Clearly, traditional media has not fulfilled its role in providing a political forum for citizens to make informed political decisions or groups to publicize their concerns. It creates political hegemony by reflecting the government’s ideas and views while ignoring alternative voices.

Thus, new media has become a ‘proper’ public sphere by allowing political parties from both sides to air their views, thus reflecting the diversity of ideas. In fact, a study by the Centre for Independent Journalism (CIJ) on media coverage during 2013 GE found that online news portals were more objective compared to traditional media as it gave equal coverage to BN and PR, both in terms of quantity and quality. However, findings showed that BN is using its deep-pocket resources to normalize the Internet; and that the opposition has lost its previous competitive online advantage. BN’s cyber-progress is the result of the engagement of cyber-troopers, bloggers and social media activists to create content and chatter to support them. A media consultant said he was asked to handle his party’s new media unit, which consists of Facebook and Twitter users, as well as bloggers. He said the unit has trained more than 2,000 people, 20% of whom are active online. New media is another area for political contestation but minority voices are still able to find a space there. One reason is because of the low-entry barrier – no licences required and minimal finances compared to the offline world.
3.3. Public Opinion and Spiral of Silence

The study found that today, politicians get instant feedback via new media and use it to gauge public opinion. One politician uses Twitter to “gauge how people feel about a certain issue”. He said, “It’s a testing ground...for certain issues, I’m not sure whether...I should fight for the issue or not. So I just test it out, gauge it, then I decide...it helps me also to decide what issues that I should be focusing on.” In fact, the government had to reverse certain policies, for example, scrapping the ceiling rebates on smartphones due to public uproar. The study also showed that online chatter is not necessarily indicative of ground sentiment. Netizens are mostly urbanites below 40; their concerns may differ from most. Hence, the question is whether online public opinion represents all voices in Malaysia. Nevertheless, cyber-public opinion may still be useful when crafting out policies as it is from a segment of society who is politically aware and knowledgeable.

New media has enabled minority opinions to break out of the spiral of silence because it reduces the fear of isolation. Before the emergence of new media, these were often side-lined and received very little space in traditional media. Pro-opposition bloggers especially could not find any space in traditional media to air their views. But with new media, they get a chance to receive public attention; with Netizen support, people feel encouraged to speak up in public instead of behind closed doors. One blogger said new media has been essential in helping him spearhead his social movement. He added, “Without...new media, Facebook...Twitter...blog, there’s no way we would be able to get the... message out effectively.” This study shows that new media has enabled minority voices to emerge in the public sphere, not just online but also offline. As discussed earlier, online competition has caused resulted in traditional media to include minority voices cater to public demand for an objective and unbiased media.

3.4. Direct Communication, Interactivity and Engagement

With ICT advancements, politicians now deal and interact directly with citizens via new media. Individual citizens have created new networks of news and information such as Media Perak’s blogger network. Blogger 5 built up his cyber-community through his readers and followers. He said, “So normally we’ll...share the same...thinking. And that helps me feel this camaraderie...So if...I write something and then somebody whack[s] me, I have friends who...support me.” Politicians can also be part of social media networks created by neighbourhood communities to keep track of their constituency. Communication is now two-way with new media as voters expect politicians to interact and engage with them. One blogger actually tweeted a Member of Parliament (MP) to test his responsiveness. Politicians cannot hide behind their ivory towers any more as people expect them to be available to answer queries and address issues. They also expect politicians from both divides to debate on issues as well. In the run-up to 2013 GE, online and offline debates between politicians from both sides attracted a huge audience. A BN politician said he participated in an online debate with a PR state assemblyman.

The study showed that the Internet’s full interactive potential has restored some political power to Malaysian citizens who are now part of politics, policy- and decision-making. However, the impact is only on minor issues such as the removal of the RM500 rebate ceiling cap for smartphone purchases. On major policy issues such as water, transportation, religion, education and electoral reform, there has been little change despite new media use. Structurally, power still lies in the authorities which control all major arms of government. Civil society groups like Bersih 2.0 have successfully used new media to create public awareness of electoral issues but have had minimal
success in pressuring the government to agree to all of its eight demands\(^1\) such as cleaning up the electoral roll. It has only succeeded in pressuring the government to one of its demands, which is the use of indelible ink during elections. The Internet empowers citizens to use it for publicity and awareness creation about their cause but success in reforming, reversing or amending crucial policies requires other ground strategies.

### 3.5. Crowd Participation, Power and Funding

Web 2.0 encourages even greater public participation as anyone can produce, edit and share content on sites like Wikipedia, YouTube or Facebook. The Internet user is a co-producer or produser (producer and user). This is clearly evident from political memes – images, video or text – that were modified or created by individuals which spread rapidly over social networks in Malaysia. Anyone with basic computer literacy is able to create his or her own website, blog, social network pages and videos. This gives ordinary people a chance to join the political discussion and ensures that cyber-space is not just dominated by government or political parties. Web 2.0 is about harnessing the power and wisdom of the crowd (O’Reilly, 2005) which makes it a powerful political tool because democracy is about numbers (Canetti, 1978).

Crowds can be easily mobilized through interactive Web 2.0 environments (Cox, 1999). Anyone can gain access and mobilize a crowd, not just pressure groups, political parties or organizations. One example was the Malaysian Spring during 2013 GE, initiated by architect Ng Seksan, who said people felt alienated and disconnected from the political and democratic process for too long. He added, “The simple gesture of making a flower and planting them in the street is the first step to get them involved. It is something for people to do, for communities to come together at this time of political shift.” Political parties, bloggers and civil society groups like Tindak Malaysia have used the Internet to recruit supporters and volunteers for projects such as voter education and registration campaigns. Governments are concerned as such crowd-mobilizing ability by individuals can erode their grip on power.

Web 2.0 also facilitates crowd-funding for individuals and organizations, which typically raises funds through small amounts of money from a large number of people, usually via the Internet. In Malaysia, opposition parties and some bloggers have also used crowd-funding successfully. For example, opposition MP Tony Pua managed to raise more than RM200,000 to fund his defence in his legal suit with Syabas. Civil society organizations like Bersih 2.0 and bloggers have also received funds and donations. Web 2.0 also supports traditional fund-raising activities like dinners by publicizing such events such that it reaches out to more people other than traditional sources.

### 3.6. Accountability and Watchdog Functions

The study found that new media is performing a better Fourth Estate role compared to traditional media. Online news portals like Malaysiakini and The Malaysian Insider are publishing stories that traditional media dare not touch because of their licence. The number of Internet news portals in Malaysia has also risen. The Fifth Estate is also contributing to the watchdog role as socio-political bloggers monitor the political scene and contribute exposés and articles. Often, they provide leads

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1 Bersih 2.0’s eight demands: Clean the electoral roll, Reform postal ballot, Use of indelible ink, Minimum 21 days campaign period, Free and fair access to media, Strengthen public institutions, Stop corruption, Stop dirty politics
which online and traditional news media pick up to investigate further. Even ordinary people can be watchdogs, such as the video which exposed judicial fixing. In 2002, a businessman accidentally recorded an eight-minute video clip on his mobile phone of a prominent senior lawyer’s conversation about the manipulation of judicial appointments by Malaysia’s top leaders through political intermediaries and business cronies. The video clip, which was leaked online, resulted in a Royal Commission of Inquiry being set up to investigate the matter.

Thus, politicians and parties have to be alert at all times. They are not just being observed by the media; ordinary people are also looking at them and can expose any wrongdoings they see. One media consultant said, “If...you do something bad and somebody does find out, there is a possibility you end up on the Internet.” Citizens today demand more accountability. This puts greater pressure on politicians who will find it hard to avoid answering difficult questions. Previously, government agencies and political parties could hide many things as there were fewer watchdogs. People accepted traditional media news during pre-Internet days as there were no other avenues to check. Today, people do not take what they read at face value, often using new media to verify any information. One blogger uses his mobile phone to access Parliament’s website and check Hansard to confirm that the MP’s statements were reported accurately by the media.

### 3.7. Cyber-Warfare

According to Mill (1859 reprinted 1974), media is a public space for groups and individuals to express their views so that truth eventually emerges through public exchange of argument and counter-argument. However, the study found that both BN and PR used cyber-troopers to conduct cyber-attacks and cyber-warfare. Cyber-troopers identified and targeted opposition ‘soldiers’ to discredit and derail their messages, thus reducing impact and influence. One media consultant supervises over 40 bloggers, content creators and social media users whose purpose was to counter pro-opposition content. Truth often becomes the casualty in a cyber-war. The respondents spoke about the dissemination of half-truths and gossip via new media, in addition to false information, visuals and photographs, often causing misperceptions, emotional distress and confusion. Low-quality information affects the competence and rationality of citizens to make informed decisions.

Vulgarities, insults and foul language are more prevalent online than due to offline editorial gatekeeping. One politician said he ignores people who name-call him; he does not engage them as their intention was to make him feel like “shit” and a “useless fella”. Online anonymity reduces inhibitions; people are more likely to name call when they cannot physically see each other. Another politician said online abuse happens because “everybody wants their few minutes’ worth of attention and glory by blasting. It’s a blast culture now. When you blast, you gain...notoriety for being a ‘blaster.’” Whistle-blowers benefit from anonymity but this power can be abused, harming innocent victims. The credibility of anonymous bloggers and reliability of information is suspect because no one can identify or locate them. Thus, the suggestion that new media is a better public sphere to serve the “free marketplace of ideas” is still left to be seen.

### 3.8. Media Regulation

While there have been calls to regulate the Internet, the respondents have mixed views. Those in favour of regulation said, Malaysians are not sufficiently media-savvy. Unlike the traditional media’s editorial gatekeepers, the free-for-all laissez-faire online environment may result in chaos and anarchy. One blogger felt that Malaysia needs laws due to its multi-racial nature. He said, “So
we must have these laws to make sure that people don’t incite hatred. I think even in...America...there’s...hate laws, which you must have because we...live in a multi-racial community,” he said. The online world is problematic as “anyone can say anything they want” due to lack of control, he said. Hate speech which could incite riots should be controlled, he added.

The cyber-war between BN and PR has caused confusion; politicians, civil society and online news portals have faced cyber-attacks and harassment. Hence, there is a case for some Internet regulation, especially on hate speech and defamation. Free speech is never absolute; its boundary ends where it tramples on fundamental liberties and rights of others or affects law and order. But such rules should be as minimal as possible for democracy to flourish. Some respondents felt that there are sufficient laws to regulate the Internet. Online anonymity makes it difficult to trace and identify troublemakers who use proxy servers and hide behind cyber-walls. Even with laws and regulations, enforcement is another issue. One media consultant said online controls is impractical as Internet Protocol (IP) addresses for blogs can be traced but not for Facebook and Twitter.

Instead of government top-down laws, self-regulation might be a better model for online media. Such moves raise ethical standards and instill confidence among the public, thus avoiding more restrictive laws being introduced into the cyber-world. Also, one should not under-estimate crowd or collective intelligence (Levy, 1999) or wisdom of the masses. Society is aware of out-of-bound (OB) markers and Internet users would not hesitate to act on any wayward members. Peer pressure could be more acceptable to Netizens than authorities regulating the cyber-world.

3.9. Political Communication Strategies

The findings indicate that digital media is an essential part of political communication but not the main strategy. As Malaysia is not fully wired, a digital divide exists. Political communication has to be multi-pronged, using online and offline media as well as on-the-ground interpersonal communication. Online popularity does not guarantee actual votes as Netizens are not necessarily constituents. But they are able to sway public opinion on issues and hence, important political stakeholders. Ignoring them would be detrimental as BN found out in 2008 GE.

But not all politicians have adapted to the cyber-world. Some outsource by employing others to manage their Internet communications. Having technical skills does not mean that one is able to manage cyber-content. One blogger remarked, “And…there’s a big…gap…[between a] young guy trying to portray as a matured politician.” Politicians should engage those who are mature enough to manage their online persona carefully to ensure congruency between their online and offline identities. Limited understanding of cyber-culture, cyber-values and Netiquette can cause social media crisis. Some politicians have been accused of using racist language or passing sexist comments on social media. They have to be careful as any political faux pas on social media can go viral very fast. One politician said he has been criticized for his tweets, but claimed it was a misunderstanding due to Twitter’s 140-character limit.

As digital natives, younger politicians are very comfortable in the cyber-world and can easily connect with Netizens. But this does not necessarily correspond to actual votes. Other external factors need to be considered: demographics, psychographics, political structure as well as socio-economic conditions. One politician observed that due to time constraints, urban voters prefer to use new media, but this lacks personal contact. However, politicians can still create a personal touch if they tweet and reply to messages via FB and e-mail or use text messaging, said one media
consultant. This virtual contact can create a digital bond or relationship between the politician and his constituents, despite not meeting face-to-face.

### 3.10. Obstacles to E-democracy

The study found that selective sampling of news exposure and ‘walling’ exists in Malaysia: the ‘silo effect’ where people confine themselves to news similar to their worldview to avoid cognitive dissonance. Facebook users associate with likeminded people and timeline newsfeeds allow news and information that users are interested in while ignoring the rest. Not all Internet users are interested in politics, preferring to use new media for business, games and entertainment. Despite the digital divide, online information still filtered down via politically-inclined opinion leaders like family members, friends and colleagues who are connected to new media.

The study found that some inherent structural difficulties cannot be solved by new media. In the proportional representation system, electoral system manipulation such as gerrymandering and mal-apportionment can affect the result. This can be seen in 2013 General Elections: BN formed the government with 60% of parliamentary seats despite winning only 47% of popular vote. Online media hype does not necessarily reflect reality as Netizens are mainly young urban people. Despite virtual hype during 2013 General Elections, the reality was that BN maintained its power.

### 4. Conclusion

Being early adopters of new media gave PR a political advantage as it dominated the digital public sphere and challenged BN’s political hegemony. However, BN has finally caught up and both now have almost equal playing field in the cyber-world. However, the cyber-war between BN and PR has caused lies, half-truths and gossip to circulate, leading to confusion and disinformation. This affects the quality of democratic decision-making as citizens are not able to make informed decisions without proper information and discussion.

Nevertheless, new media has empowered citizens as they now have a greater opportunity to participate in Malaysian politics. With the Internet’s interactive Web 2.0 platform, there is greater exchange and deliberation among politicians, journalists and citizens, who are more politically aware, involved and interactive. Politicians and parties have to switch from the usual one-way, top-down form of communication into a two-way interactive mode. They also have to be more responsive and accountable to their constituents who are now more politically aware and demanding. Despite this, there has been little change on major policy issues such as water, transportation, religion, education and electoral reform. The Internet and new media are just enablers to help citizens publicize and create awareness to push their agenda forward. To actually succeed in reversing or amending crucial policies, other external factors have to be considered.

The Internet has caused a huge ripple in the Malaysian political landscape and changed the way politicians and parties communicate with citizens. But whether it can be a key factor towards political change remains to be seen as other external factors such as socio-economic issues and electoral reform need to be considered.
References


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Remaking Guangzhou
Political Engagement and Place-making on Sina Weibo

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Abstract: This study uses the concept of ‘place-making’ to consider political engagement on Sina Weibo, one of the most popular microblogging services in China. Besides articulating state-public confrontation during major social controversies, Weibo has been used to recollect and re-narrate the memories of a city, such as Guangzhou, where dramatic social and cultural changes took place during the economic reform era. The Chinese government’s ongoing project to create a culturally indifferent ‘national identity’ triggers a defensive response from local places. Through consuming news and information about leisure and entertainment in Guangzhou, the digital narration of the city becomes an important source for Guangzhou people to learn about their geo-identity, and the kind of rights and responsibility attaching to it.

Keywords: Geo-identity, Guangzhou, place-making, political engagement, Sina Weibo

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Even though new social media services like Sina Weibo (microblog) seem to have empowered citizens to challenge state authorities in China, critics argue that those ‘victories’ are merely momentary and that the technology has so far failed to deliver structural reform and ongoing citizenry engagement; instead, the Chinese government uses the Internet for its own advantage (The Economist, 2013; Sullivan 2014). While the majority of the current scholarly works locates Weibo within China’s social stratifications, that the source of contention is due to the asymmetric power-relationship between classes; not to dismiss this conceptualisation, Weibo should also be located within the asymmetric spatial arrangements, in particular, the tension between the Central State and local places. After all, China has one of the world’s oldest and most enduring systems of territorial scale hierarchy that its spatial administrative management system can be dated centuries (Oakes and Schein, 2006).

By collecting online post from a Weibo group in Guangzhou – Eat, Drink, Play, Fun in Guangzhou (EDPF) – this study considers how the construction and negotiation of geo-identity on Weibo enacts possible political participations in Guangzhou. ‘Geo-identity’ refers to people’s sense of self and sense of belonging to a geographic place. ‘Place’ is a useful analytical concept because it gets close to people’s everyday lives and social practices. As Prieto (2011, p. 18) argues, ‘human identity is inextricably bound up with the places in which we find ourselves and through which we move.’ ‘Place’ offers alternative metrics to assess political engagement and citizenry. The
‘place’ in this study is Guangzhou, the capital city of the southern province of Guangdong, noted for its specific social and cultural transformations during the economic reform era as well as its ongoing tension with China’s Centre government. This study focuses on the kind of ‘political participation’ that is outside of the conventional settings of party politics and argues that Weibo politics are accumulated through people’s consumption of material and cultural products, and are practiced within the realm of everyday lives.

The essay will first provide a brief social background of Guangzhou and conceptualize it as a ‘place’ that requires constant (re)-making to sustain its local identity. Moreover, Guangzhou’s identity is ‘defensive’ in that it is reactive to the Chinese Communist Party’s (CCP) effort to create a singular Chinese national identity. By moving this argument forward, the second section considers Weibo’s role in enacting popular politics in China and introduces a Weibo group as the case study. The third section outlines the study’s design and method. This study collects posts that are posted by a Guangzhou’s Weibo group (weiqun), EDPF, over a period of twelve months. The data provide nuances and insights about Guangzhou people’s ongoing political engagement and practice. The last section will conclude with major findings.

1. Guangzhou - a ‘defensive’ place

Guangzhou is the capital city of Guangdong, the first mainland Chinese region to launch economic reform. It is geographically and culturally close to Hong Kong and Macau. Cantonese is the local dialect, and Hong Kong’s media and cultural products constitute a part of many Guangzhouers’ everyday lives (Fung and Ma, 2002). Throughout the reform era, Guangzhou has been the transit terminal for migrant workers, investors and other business personnel to the Pearl River Delta regions (Vogel, 1989). For example, there were more than 28 million migrant workers transited at Guangzhou in a period of 40 days before and after the Chinese Lunar New Year in 2013 (Ye and Li, 2013); this figure tops the nation. At the same time, tension between local Guangzhouers and new migrants (also migrant workers) intensifies over employment, social security, and even family stability (Cheung, 2002).

Furthermore, the CCP’s ongoing project of constructing a national identity across China triggers a sense of displacement in Guangzhou. One of the key policy initiatives of the CCP since the 1950s was to promote Mandarin (putonghua), which is based on the Beijing dialect. The policy has been enforced across major cities in China. Cantonese was exempt from this policy during the 1980s and early 1990s for the purposes of attracting Hong Kong investors (Xinhua, 2010). This, however, is changing. It is compulsory now for schools in Guangzhou to teach in Mandarin. In 2010, the Guangdong government considered replacing Cantonese broadcasting on the Guangzhou Television Network with Mandarin. This proposal triggered widespread public anger in Guangzhou and a street protest with more than 1,000 people was organized on Weibo. The incident reinforced a sense of displacement and dispossession among Guangzhouers. There is a shared sense that local Cantonese culture and identity are diminishing as they are giving way to a standardized national identity which is indifferent to regional specifics.

Guangzhou is as an example of ‘place disruption’ during China’s process of economic reform when the flow of financial, human and media were making local places less relevant. As Tim Oakes (2000, p.671) argues, China’s nation-state ‘has been accused of marginalizing any local or regional cultural variation that did not fit with its agenda of integration, modernization, and development’. However, Oakes insists that this is not the end of local places, instead,
marginalization makes the local as a ‘more salient scales for asserting cultural identity’ (p. 671). The relevancy of place in people’s daily lives and routines, therefore, make it as an important site to organize social meaning and sense of belonging. As Manuel Castells (2009, p.453) puts it, ‘the overwhelming majority of people, in advanced and traditional societies alike, live in places’. The attempt to disrupt a place is an eventual attempt to interfere daily routine and the sense of self, which, as Castells argues, can never permeate smoothly.

A place goes beyond the definition used in cartography (a point or a space that is marked by border lines on a map), in fact, as Blu (1996) points out in her study of Native American tribes, many local places are not even indicated on maps. Stephan Feuchtwang (2012, p.4) also argues that, ‘places do not have to be territorial… A territorial place is open … even when they are clearly bounded, their boundaries are not physical enclosures’. Places, however, are not merely given by the natural landscapes, nor are they purely assigned for administrative purposes. According to Miriam Kahn (1996, p.167), places are ‘complex constructions of social histories, personal and interpersonal experiences, and selective memory’. Place, therefore, should be understood by humanity and subjectivity defined through the constant interactions with ‘outsiders’. As Doreen Massey (1994, p.169) argues, ‘the identity of a place does not derive from internalized history. It derives, in large part, precisely from the specificity of its interactions with the “outside”’. Therefore, instead of viewing Guangzhou as a static place that resides on its historical and cultural ‘uniqueness’, I focus on how Guangzhou’s transformation during the reform era contribute to the formation of a geo-identity through the process of place-making on Weibo.

Place-making is using the process of marking of a place to make sense of the world, to construct a sense of self and a sense of belonging. Feuchtwang (2012, p.10) defines place-making as ‘the centring and marking of a place by the actions and constructions of people tracing salient parts of their daily lives as a homing point in their trajectories’. A place’s transformative experience and its natural, humanities, and historical features trigger memories of lives, knowledge of the past, and hence, form an anticipated trajectory of the future. Place-making is a process of identification and the construction of unity, it helps to transform the individual ‘selves’ to a collective ‘us’. Traditionally, place-making is done so through literature, tales and myths, music and dance, and social rituals that are performed routinely either in public or private spheres. Again, even the most mundane practices can sometimes be deemed to be outside the collective national agenda. Speaking Cantonese in Guangzhou is such an example. Place-making in such a context is therefore a counter cultural practice. The nature of Guangzhou’s geo-identity should be considered as resisting and defensive. The claim of a place-based identity transforms into a form of political participation and citizenry engagement, to assert the right and responsibility over the place. Weibo offers such a venue to do so and to avoid direct confrontation with the state. At here, the discussion turns to Weibo and the Weibo group of EDPF in GZ.

2. Weibo and EDPF in GZ

Weibo was first launched by Sina.com in 2009: the number of Weibo users reached 330 million by the end of June 2013 (CNNIC, 2013). Other major online providers, such as Netease, Tencent and Sohu have launched their own weibo (Sullivan, 2012). This Twitter-like service allows its users to share messages of up to 140 Chinese characters. Moreover, users can share visual images and video, attach URLs, and re-post and ‘LIKE’ messages that they find interest in. Unlike Twitter, 140 Chinese characters can convey nuances and a great deal of information (Sullivan, 2013). Weibo
becomes the major conduit for public communication and information sharing over the years. A number of scholarly works focus on the political dimension of Weibo in articulating state-public contentions in China (Sullivan, 2012, 2014). In particular, many works interested in how activists use Weibo to mobilize popular support and even collective action on issues such as the environment (Sukosed and Fu, 2013), land disputes (Tong and Zuo, 2013), and urban home owners’ protests (Huang and Sun, 2014). Besides contentious politics, Wang (2013) also notes that Weibo enacts public deliberations over controversial social issues. At the same time, Weibo also sees new phase of state repression and online control. Ongoing projects (such as Weiboscope at the University of Hong Kong) and individual scholarly works (such as King, Pan and Roberts, 2013; Ng, 2013) have focused on tracking down ‘deleted posts/comments’ from Weibo. King, Pan and Roberts (2013, p.339) argue the purpose of censorship is to ‘reduce the probability of collective action’. As a result, ‘the Chinese people are individually free, but collectively in chains’ on the Internet (p.339).

Current scholarships on Weibo develop interactive frameworks that capture the interplays between technology, individuals, and institutions in China. However, the line of inquiry resides upon the assumption that the Internet is placeless, that information no longer anchored to specific locations. Analysis has tended to focus on technology’s interaction with social class, which is defined by asymmetric political and economic power in China; but this neglects asymmetric spatial power between local places and national space and how geographic environments interact with the Internet. Given the rise of locative based services (LBS) in recent years, there is a renewed interest in ‘shifting the focus away from placeless flows and back to geography’ (Nitins and Collis, 2013, p.69) in the field of social media research. Mark Graham (2014, p. 99) in particular argues that the Internet is not a placeless cloud but it is ‘characterized by distinct geographies’. Such a trend has yet to receive thorough attention by researchers in the field of China digital media. Therefore, bringing together this renewed scholarly focus on ‘geography’, and responding to the longstanding quest in understanding the political capacity of China’s Internet, this study suggests the concept of ‘digital place-making’, the process to use digital technologies to reconstruct and renegotiate a physical place on the virtual sphere, as an analytical framework to examine the formation of a political self and community on Weibo.

Weibo launched Weibo groups (http://q.weibo.com/) in 2010 to facilitate information sharing and communication on selected topics of interest among Weibo users. There are many different types of Weibo group, Shi and Chen (2014) for example, discussed about the Weibo group for people living with HIV/AIDS, and how Weibo group enact mutual support among group members. Besides common interest (or shared grievance), another popular genre is ‘city group’; these groups shares news and information about city lives. There is no official figure on the number of city Weibo groups in Guangzhou. I have observed and followed 16 of them. ‘EDPF’ (http://weibo.com/gzlifes) is the largest group in terms of its number of followers (1,195,292 followers as in October 201e). Besides EDPF, other groups include: ‘Guangzhouer Community’, ‘Guangzhou local group’, ‘Things that even Guangzhouers do not know’, ‘Guangzhou’s children’, ‘Eat Around Guangzhou’, ‘Funny Cantonese’, and ‘Playing out in Guangzhou’; these groups also commit to providing local affairs, news and information to Guangzhouers. EDPF is chosen for study because it has the largest follower base, which indicates the scale of its impact and the degree of popular engagement with its contents. Just like its global SNs’s counterparts, connectedness is a critical dimension of Weibo. Weibo’s networking function such as ‘Accounts that we both have followed’, and ‘My followers have also followed’ sections indicate the ‘mutual-
following’ and ‘mutual-promotion practices’ between city groups and their followers. For example, EDPF has followed other Guangzhou city groups. It seems like the inter-groups relationship is not competitive in nature. These groups seem to formulate a network of identity. Weibo’s algorithmic networking function helps its users to recognize the online presence of their geo-identity, and to develop a sense of belonging to the city.

3. Methods and Findings

The unit of measurement was a single post generated by the EDPF. This study does not consider the messages generated by individual Weibo users because it primarily interests in how EDPF, as an online community, produce a Guangzhou identity. This study manually collected EDPF’s posts over a period of twelve months, from 1 July 2012 to 30 July 2013. EDPF was first launched (according to its ‘welcome post’) on 20 July 2012. A total of 7,355 posts were retrieved. The method of systematic sampling was used, with 95 percent confidence level and +/- 3 percent confidence interval, a sample of 968 was drawn (every 8th post is sampled). Given this study only interests in those posts produced by EDPF, unlike other Weibo studies that collected Weibo users’ comments (such as Wang, 2013; Shi and Chen, 2014), the data set did not contain any commercial spam, duplicated posts, or pure emotional stickers posts. Initially, I had little knowledge about what story the data set would tell me at the outset. The data exploration led to the development of the conceptual framework and the analytical design of this study.

In order to examine the research question of how EDPF construct a Guangzhou identity, the study generated two subsidiary questions: SRQ1. How EDPF present Guangzhou’s city space and social culture on Weibo? SRQ2. How such a process of identification enacts participation and communication on social, economic, and even political issues. SRQ1 guides the coding schema and SRQ2 guides the analysis of the results. The study categorized each post in accordance to the topic of its content. The categories, as shown in Table 1, highlight the act of ‘digital place-making’ by EDPF as each category represents a different aspect of Guangzhou’s city space and social culture. Posts in the sample fall into ten categories:

<table>
<thead>
<tr>
<th>Label</th>
<th>(Number of posts)</th>
<th>Description</th>
<th>Example - posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Food</td>
<td>(202)</td>
<td>Information about food and dining places</td>
<td>Best places to get traditional beef balls dishes in Guangzhou.</td>
</tr>
<tr>
<td>2. City Experience</td>
<td>(71)</td>
<td>Discussion about Guangzhou’s nature and social changes</td>
<td>Guangzhou’s autumn is ‘magical’ because some people wear summer clothes, some wear winter clothes.</td>
</tr>
<tr>
<td>3. Leisure, Entertainment and Tourism (LET)</td>
<td>(127)</td>
<td>Information about entertainment venues and tourist attractions</td>
<td>Local animation festival, including cosplay, at Xiguan (an old town of Guangzhou).</td>
</tr>
</tbody>
</table>

1 The researcher copies and pasted Weibo posts from EDPF’s home pages and stored the data into a separated document to run the sampling and the coding procedures.
5. Social issues (58)

| News about social incidents around China | A 13 years old girl at Guangxi committed suicide because she felt she is not beautiful enough. |

6. Disadvantaged groups (39)

| Raising social awareness about marginalized groups (including animal welfares) | Posts about missing person Posts about homeless dogs |

7. Popular culture/celebrity (51)

| Discussion about celebrities, music, and film and televisions | The URL link to the ‘Memorising Leslie Cheung’ concert. |

8. Human interests (183)

| Interesting news and odd spots around the world | News: a sexual assault incident in Shanghai’s subway. |

9. Expression (35)

| Emotional post about the city life | Cherish your friends, they are too important to loss in our lives. |

10. Lifestyle advices (178)

| Tips, news and information about Guangzhou | New railway connects Guangzhou and its surrounding cities. |

Given the researcher, myself, is a native Cantonese speaker, I used the coding schema to code the entire sample set. The process and experience of reading through every post help me to detect the main discourses from each category. SRQ2 leads the data analysis phase and the data analysis comprises two parts. The first part concerns the content of each post and makes reference from the content to the context. This research method has been used in Tong and Zuo’s (2013) study of Weibo and mass incidents in China. This method is useful to locate the content of the Weibo post within a broader social and economic context. While the categories in Table 1 highlight different aspects of Guangzhou (such as food, events, and media consumption), there are important discourses behind the framing of each category (the way EDPF presents Guangzhou and leads the discussion on Weibo). The second part interests in the textual representation of each post and relate them to Weibo’s technical functions. This method helps the analysis to focus on the ‘interaction’ between Weibo’s technical functions and pre-existing social cultural resources. This allows the analysis to consider the ‘geo-identity’ dimension and locate the discussion of ‘geo-identity politics’ within the broader social economic conditions in China.

4. Findings and Discussions

As mentioned, a place’s experience trigger memories of lives, knowledge of the past, and hence, form an anticipated trajectory of the future. In order to do so, EDPF first constructs a sense of solidarity and unity through recollecting Guangzhou’s social and cultural characteristics. The Food and LET categories dominate EDPF’s online posts and the contents are significantly ‘local’. In the Food category, only 5 out of 202 posts mentioned a waishen (Chinese regions outside of Guangdong) cuisine as the majority of the posts focus on the local Cantonese cuisine. In the LET category, less than 10 out of 127 posts have recommended a waisheng tourism destination. The majority of the post recommended destinations that are either near Guangzhou (such as Hong

2 One of the most famous and well-respected Hong Kong Canton-pop and film stars since the 1980s, who has committed suicide in 2003 due to depression.
Kong and Macau), or inside Guangzhou. Weibo’s visualization functions help the identification process. Visual images or audio materials are attached to nearly every collected sample in this study. Visual materials set the locative ‘boundary’ of identity and it helps making identity visible and tangible. For example, EDPF’s posts about food and heritage buildings rely heavily on visual displays, as they provide concrete visualization of what is ‘traditional’: what a Cantonese dim sum looks like and which buildings have ‘post-colonial aesthetics’ in Guangzhou.

Moreover, EDPF makes the local culture as the metaphor for ‘financial affordability’. Posts about the local cuisines rarely mention dishes from premium restaurants or five star hotels; instead, they emphasize on bargains and budgetary. The same goes for leisure and entertainment choices, where most of the mentioned tourist destinations and events are relatively cheap (because of the short travel distances) or free. The implicit focus on the financial attributes highlights the daily struggles, emotions, and living experience in Guangzhou during its economic restructuring. From 2010 to 2011, the prices of food experienced the severe inflation: the prices of rice (up 11.2%), meat and poultry (up 15.7%), fishery (up 14.1%), which constitute the basic everyday living all went up. EDPF is guiding its addressees, Guangzhou’s low-end middle class youth who are coping with studies, employments and living pressures in general, through the contents of food, leisure, and entertainment. The place-making process offers a ‘solution’ to provide an immediate life trajectory to address daily necessity (food) and personal desire (leisure and entertainment).

Second, EDPF makes Guangzhou as a ‘different’ place in China through linguistic choice. The majority of posts is typed in Cantonese expressions instead of Mandarin. Although both languages share the same Chinese characters, written Cantonese can be quite different in terms of syntactic structure and word choice. As mentioned, Guangzhou schools are required to teach Mandarin, written Cantonese is an act of self-acquisition and learning. The online practice of typing Cantonese is political because it resists the government’s tuipu policy and dispute the claim that Mandarin as the only legitimate language in China. It is personal because it speaks to people’s everyday lives. Linguistic autonomy on Weibo therefore marks Guangzhou as a place with its unique cultural and political subjectivity, and it defies the CCP’s will of linguistic standardization and cultural homogenization.

Third, EDPF extends Guangzhou’s cultural subjectivity in relation to Hong Kong, its geographically and culturally related neighbour. 78 posts in the sample contain news and information about Hong Kong, and most of them are found in the LET and Popular Culture categories. The video sharing function on Weibo for example, allows the recollection of old Cantonese pops, or the trailer of new television dramas to be experienced on EDPF. Hong Kong and Guangzhou have had close trading and cultural interactions. However, there is also a more profound implication of media preferences and choices. In contrast to the absence or the lack of attention of national media (such as CCTV), Hong Kong’s presence indicates a Guangzhou identity that is driven by a sense of cultural belonging (the Cantonese culture) rather than a sense of belonging to the nation (China). Hong Kong’s Cantonese media culture continues to remind Guangzhouers about their Cantonese cultural identity. A post (30/3/2013, reposted 101 times) that talks about childhood, for example, reads, ‘such a wonderful childhood with TVB’.

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3 Television Broadcasts Limited (TVB) is the second largest, free-to-air, commercial television station in Hong Kong. Most of the Hong Kong popular films and television programs that Guangzhou consumes over the years are produced by TVB.
(25/2/2013, reposted 241 times) extends to the idea and listed 60 reasons of loving Guangzhou, the top three reasons are: 1. ‘Close to Hong Kong’; 2. ‘far away from Beijing’; and 3. ‘Guangzhou has the most outspoken media in China’. These posts show the organization of a self and the construction of a community through the process of cultural consumption. As Fung and Ma (2002, p.76) note, Guangzhou audiences have learned about values ‘such as individualism, consumerism, and skeptical of authority’ through their consumption of Hong Kong’s television dramas. Hong Kong ‘bridges’ the mundane media consumption in Guangzhou with the relatively liberal civic values. Hong Kong highlights Guangzhouers’ self-perceived liberal and diverse social and political values, which contrast to the national agenda set by the CCP. This, again, frames Guangzhou as a place of resistance to political domination and ideological homogenization. Hong Kong also helps Guangzhouers to construct an anticipated social trajectory for the future – to continue to defend its social liberty and diversity.

Fourth, A Guangzhou place is in constantly re-making by comparing itself with other mainland regions. Post about waisheng often comes in the genre of ‘news and current affairs’. EDPR has been reposting news reports from the mainstream media in the ‘disadvantaged group’ and ‘human interests’ categories. Some of the news stories are serious current affairs (such as murders, disasters, and corruption), and others are light-hearted entertainments (such as funny odd spot news). There are 53 posts about waisheng in the above mentioned two categories. 44 are negative news, 9 are positive news. While news coverage about crime, assaults and animal cruelty emphasis on the perceived attributes (by Guangzhouers) of the social culture outside of Guangdong is ‘barbaric and uncivilized’, which makes Guangzhou as socially and culturally more developed and civilized place; the negative depictions of a waisheng place also highlight the vulnerabilities of individuals who are living in those environments. A post (11/10/12) for example, covers a story about a woman insulting a street cleaner by deliberately throwing rubbish on the street in Chongqing (a multiplicity in western China). By emphasizing on the rude behaviour of the woman, this post also points out the unequal inter-classes power relationship in China. The stereotypical depictions of waisheng is then not simply an act of ‘discrimination’, quite the opposite, EDPR is drawing on Guangzhouers’ awareness about the wellbeing of the underclass and the issue of social equality. This is an act of ‘scale-jumping’ that EDPR scales up Guangzhou’s social norm and value to address a national issue. The treatment of waisheng indicates that EDPR is integrating Guangzhou’s local subjectivity to a national arena.

5. Conclusion

Digital place-making is not merely a technical alternative to construct and negotiate geo-identity, it is inherently political. Place-making offers a concept to understand both of the internationalization process of resistance, and to contextualize this process within the broader socioeconomic transformation in China. The tension, however, does not arise from materialistic and economic inequalities, but it is the asymmetrical spatial power between the nation and city, as the former is an expression of domination and control; the latter represents people’s daily survival and dignity. Weibo’s function here is far beyond expanding the reach and scope of news and information, but Weibo brings memories to live, links past to present, making one’s identity visible, tangible, and therefore, functional.

While Weibo articulates the significance of local places in people’s everyday lives, the concept of ‘place’ also suggests an alternative path to think about Weibo and politics. Instead of merely
investigating events and controversies, local place provides insight about the ongoing political practices and engagements in a seemingly ‘apolitical’ manner. Instead of taking information on Weibo as ‘placeless’, a critical approach to explore geography on Weibo can help to explore the formation of citizenry networks, as place is the container of people and life. Weibo politics is inherently an online practice of the everyday.

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About the Author

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Wilfred Yang Wang is a PhD Candidate at the Creative Industries Faculty of Queensland University of Technology, Australia. His PhD dissertation investigates the construction and negotiation of Guangzhou’s geo-identity on China’s microblogging service of Sina Weibo; the study proposes a ‘geographic approach’ to assess China’s online culture and politics. His research interests include digital media, social movement, identity politics, framing analysis, and human/cultural geography of the Internet.
Chinese-language Bloggers in Singapore

Apoliticized and blogging alone

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Abstract: Research on new media such as blogs examines users’ motivations and gratifications, and how individuals and organizations use them for political participation. In Singapore, political blogs, commonly referred to as “socio-political” blogs, have attracted much public scrutiny due to the bloggers’ online and offline challenges of official discourse. While previous research has established the political significance of these blogs, extant scholarship is limited to blogs written in the English language. Little is known about blogs maintained by the Chinese community, the largest ethnic group in multi-racial Singapore. This study is a first to examine this community and the space they inhabit online. Through content analysis, we identified the characteristics of the Chinese-language blogosphere, and analyzed if Chinese bloggers contribute to public debates and use their blogs for civic engagement. On the whole, the Chinese blogosphere is a highly individualized and a-politicized one. We discuss possible reasons and implications.

Keywords: New media, blogs, Chinese, Singapore, civic engagement

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Until date, existing research on new media use takes on these main trajectories: the uses and gratifications which motivate adoption, the implications of new media use on deliberation, civic engagement and collective action, and how new media facilitates horizontal (citizen-to-citizen) and government-citizen communication. In Singapore, public discourse surrounding blogs focuses on those written in English, the country’s lingua franca. Since Singapore’s independence, the English language has played an economic and social role – it is used as a language of economy and trade, and is the common denominator that connects different ethnic groups. In recent years, what are commonly known as “socio-political blogs” (those with analyses and commentaries on social, economic and political issues related to Singapore) have received much attention from policymakers, the mainstream media and the general public.

Several of these political blogs such as The Online Citizen (TOC), The Independent Singapore, Temasek Emeritus Review and The Breakfast Network1 have gained many “eyeballs” and are

1 The site ceased operation in late 2012 when the editor decided not to register with the Media Development Authority which regulates the online space.
well-known for their critiques of government policies and the ruling party (People’s Action Party). In addition to being outlets for self-expression, these blogs reach out to different communities of interest and provide spaces for like-minded people to connect to one another. Some bloggers have visible offline personas and are known for their activist work in different domains such as anticensorship, migrant workers’ welfare and lesbian-gay-bisexual-transsexual rights.

While much of the current debate focuses on English-language blogs (henceforth referred to as English blogs) and their impact on Singapore’s society, scant attention has been given to non-English blogs. This is despite Singapore being a multi-ethnic society where the government has implemented a bi-lingual language policy that requires students to take English as the first language and their designated mother tongue language as a second language. This study examines the use of blogs by the largest ethnic community – the Chinese - specifically blogs written in the Chinese language (henceforth referred to as Chinese blogs). Besides being the largest ethnic group in Singapore, their political history involving confrontations with the state has been a popular topic of study. First, we identify the salient characteristics of the Chinese blogosphere through a baseline analysis, a first step to charting an unknown territory. Second, we assess if and to what extent there is a politicization of Chinese blogs, and their political and societal implications. By studying the development of new media use in vernacular languages, this paper fills the gap in existing research which typically focuses on new media use in the lingua franca of any society or community.

1. Blogging Together

Research on blogging has come a long way, the first foray being the analysis of uses and motivations behind blogging (see for example, Herring, Scheidt, Bonus & Wright, 2004; Nardi, Schiano, Gumbrecht & Swartz, 2004). Earlier studies showed that blogging is driven by the need for self-expression and social connection. Personal-type journal blogs are the most prevalent and are used by bloggers to “report on their lives and share their inner thoughts and feelings” (Herring, Scheidt, Bonus & Wright, 2004, p.6). Studies have also shown that blog networks have small-world and scale-free characteristics similar to those of real-world networks (Fu, Liu & Wang, 2008; Soon & Cho, 2011)

However, it soon became evident that blogs are becoming a new political force. Unlike traditional broadcast and commercial networks that place and frame pre-determined issues on the national agenda, bloggers function as grassroots intermediaries. They accord visibility to an issue if they deem the issues relevant to different publics and, in the process, reframe the issues, thereby ensuring that everyone (versus those in control of media) has a chance to be heard (Jenkins, 2006). Jenkins described blogs as a form of egalitarian grassroots movement that “spoils the American government” and contributes to a new form of media system as bloggers share and scrutinize available information. Observations of how bloggers are shaping the political landscape are not limited to Western countries. Russell and Echchaibi (2009) presented a collection of case-studies of how blogs are used to articulate identity and resist political pressures in countries such as Russia, Morocco, Australia and Israel. In Iran, blogs enabled women to share their intimate thoughts “in a

2 A mother tongue is the language of an ethnic group. There are three official mother tongues in Singapore – Chinese for the Chinese, Bahasa Melayu for the Malays and Tamil for the Indians. Non-Tamil Indians have the option of choosing a non-Tamil Indian Language such as Bengali, Gujarati, Hindi, Punjabi or Urdu.
society where women had no public forum, no opportunity to express themselves” (Amir-Ebrahimi, 2008, p.93). Bosch’s (2010) analysis of South African political blogs and citizen journalism sites found that bloggers placed themselves in authoritative positions in the area of social commentary and actively influenced opinions.

In Singapore, the World Wide Web has created an alternative space for concerned individuals to access non-mainstream perspectives and discuss political, economic and social issues (Ho, Baber & Khondker, 2002). Online discourse has also begun to spill over to the real world - a group of bloggers (Bloggers 13) came up with a proposal calling for de-regulation of the Internet and TOC (a group blog) conducted street polls and held talks at the Speakers’ Corner to reach out to the masses. Existing research has established how the Internet enables like-minded veteran and fledgling activists to connect in cyberspace and strengthens the sense of collective identity and impetus to take part in collective action (George, 2006; Ibrahim, 2009; Skoric & Ng, 2009; Soon, 2013; Soon & Cho, 2014; Soon & Kluver, 2014). Through in-depth interviews with 26 activist bloggers in Singapore, Soon (2013) found that activist bloggers used Internet technologies to negotiate institutionalized constraints and overcome challenges posed by collective incentives, structural proximity and structural availability. A shared consciousness of being part of a larger “socio-political” blogging community, distinct blogging practices and the articulation of a common adversary (the ruling party and mainstream media) defined the collective identity shared by activist bloggers and fostered solidarity (Soon & Kluver, 2014).

This section has established that irrespective of the country of origin of existing research, bloggers have the capacity to act in concert with one another in order to exert a larger collective impact. To contextualize our research agenda, the next section presents the historical and cultural developments which have influenced the Chinese community in Singapore.

2. Being Chinese in Singapore

Singapore has frequently been described as an immigrant society. As a British colony and trading port, migrants from China and India who came to seek work eventually sank roots alongside the indigenous Malay community. Today, Singapore remains a multi-ethnic society: 74.1% of Singapore residents are Chinese, with the remaining 13.4% Malays, 9.2% Indians and 3.3% “Others” (i.e. the last group comprising people of mixed-heritage) (Census of Population 2010, Department of Statistics Singapore). Among the ethnic Chinese population, there are several dialect-speaking Chinese subgroups.

Research on governance in Singapore has pointed to the prevalence of pragmatism in the government’s ruling ideology (Chua, 1985; Hill & Lien, 1995). Such pragmatism extends to the country’s language and ethnic policy (Tan, 2006), an approach that is informed by the intersection of historical circumstances as well as political, economic and social imperatives. When Singapore gained independence in 1965, its leaders displayed sensitivity towards its neighbors – all of whom have Muslim majority populations– by de-emphasizing its “Chinese-ness” (Tan, 2002). This, with the government’s strategy to build a multiracial state, develop a Singaporean identity and protect the special position of the indigenous Malays, led to the recognition of English, Mandarin, Tamil and Malay as official languages, with the appointment of English as the language of government, administration and commerce (Tan, 2006). The economic justification for learning the English

3 TOC was subsequently gazetted as a political association by the government in 2009.
language found favor with many Chinese parents and this contributed to dwindling enrolment numbers in Chinese language schools. At the height of decolonization between the late 1940s and mid-1960s, many Chinese school students were involved in student and trade union activities (Kwok & Chia, 2012). Political challenges by members of the Chinese community drove the government to curb the influence of Chinese-language schools.

However, the rise of China and the accompanying economic advantage of mastering the Chinese language prompted the Singapore Government to launch the ‘Speak Mandarin Campaign’ in 1979. Some scholars associated the campaign with promoting Chinese at the expense of the Chinese dialects (Cantonese, Hokkien, Teochew etc.) with Mandarin was depicted as a common language unifying the different Chinese dialect groups (Tan, 2012). The success of the ‘Speak Mandarin Campaign’ could be partially gauged from the declining numbers of ethnic Chinese in Singapore speaking their dialects - 19.2% in 2010 as compared to 30.7% in 2000. Cognizant of this development and Chinese being the largest ethnic community in Singapore, scrutiny of the implications of Chinese blogs is thus timely.

3. Research Aims & Methodology

Although existing studies on blogs in Singapore have established the political implications of blogging, they focus on English blogs and have omitted blogs written in vernacular languages. The body of work on blogging in vernacular languages is limited both in quantity and scope – researchers studied the use of such blogs for teaching and learning and by diasporas residing in Singapore (mainly by Chinese immigrants from China) to connect with their fellow countrymen (He, 2007; Huang, 2009; Jyh, 2009; Sim, 2008; Tan & Tan, 2010; Ubaidullah, Mahadi & Lee, 2013).

In Singapore, 87% of households have Internet access and the mobile penetration rate is at 150% (Information Development Authority of Singapore, Facts and Figures, 2014). Despite increasing IT penetration and increasing trends of new media use for civic engagement, little is known about if and how the Chinese community use blogs. Thus this study seeks to examine the Chinese blogosphere in Singapore and its political significance, if any. Specifically, we seek to determine characteristics such as the size of the Chinese blogosphere, the level of activity of these blogs, who the bloggers are (to as far as can be determined from blog content), the issues they blog about and structural attributes which may shed light on bloggers’ affiliations. Second, we examine the presence and degree of politicization of Chinese blogs, specifically if and how they contribute to public discourse.

3.1. Sample

The sample for this study was collected from November 2013 to January 2014 in two stages – keyword searches via commercial search engines and snowballing the sample. Keyword searches were conducted using Google Chinese, Google English and Yahoo! to locate seed blogs. Subsequently, we “snowballed” the population by tracing hyperlinks from each seed blog to other blogs. We repeated the snowballing process till we reached sample saturation (i.e. when we stopped finding new blogs). Only active blogs - those with at least one blog update made within the last year prior to data collection - were included. As we were interested in studying blogs related to Singapore (as people of Chinese descent living in other parts of the world may also blog in the Chinese language), we used this criteria to identify relevant blogs: (i) At least 50% of the blog content is written in the Chinese language and (ii) the blogs must be related to Singapore (i.e.
they are either started by Singaporeans, Singapore-based bloggers, or bloggers located out of Singapore blogging on Singapore-related issues). Where the nationality or residency of bloggers cannot be determined, at least 50% of the blog content must be related to Singapore.

3.2. Content analysis

To determine the features of the Chinese blogosphere, we analyzed the following:

1. **Size and characteristics of the Chinese blogosphere** – We determined the size through the two-staged process described earlier and used Herring, Scheidt, Bonus and Wright’s (2004) coding scheme to identify the recency of update and age of blog.

2. **Who Chinese bloggers are** – We determined their age, gender and professions by studying their profile pages or drawing inferences from blog content where the former is not available (we omitted blogs where both methods were not feasible).

3. **Blog type** - We used categories (personal-type blogs, knowledge blogs or k-logs, filter blogs and mixed-type blogs) developed by Herring et.al. and added aggregators to the list.

4. **Issues blogged about** – We adopted categories of topics (“politics”, “social issues” and sports” etc.) from existing studies (Trammell, Tarkowski, Hofmokl & Sapp, 2006; Yu, 2007). To determine the topics bloggers write about, we studied the blog posts, used the frequency count method and recorded all the topics a blogger blogs about.

5. **Bloggers’ affiliations** – We analyzed the home page of each blog for the presence of badges and their links to other sites.

4. Findings & Discussion

4.1. Characteristics of the Chinese blogosphere

Through keyword searches and seven rounds of snowballing, we found a total of 201 Chinese blogs which met our criteria. The mean age of the 201 blogs was five years – 27% of the blogs have been active for four to six years, while 33% of the blogs were six to 10 years old. Chinese blogs were of medium activity with the majority (48%) being updated within the last three months.

4.2. A peek into who Chinese bloggers are

Based on content analysis, we were able to infer the age of the bloggers for 49 of the 201 blogs. Of this group, 43% were in their 20s and 47% were in their 40s to 50s. Out of the 137 blogs for which researchers were able to determine the bloggers’ gender, 58% were female and 42% were male. The Chinese blogosphere comprised mainly Singaporean Chinese and a small group of Malaysian Chinese. About 2% of the blogs were started by Chinese immigrants from China. Information on bloggers’ professions was either self-declared by the bloggers or inferred from their blog posts. The three largest occupational groups were the media sector (e.g. journalists and radio deejays at 25%), creative industries (such as graphic designers and illustrators at 20%), and education (consisting of academics, researchers and teachers at 14%). The professional profiles of the bloggers indicate that the Chinese language forms an integral part of their professional and personal lives. Among the bloggers were radio presenters, journalists from newspapers, 4

4 A blog would be counted multiple times if the blogger writes on more than one type of issue.
magazines and television, undergraduates majoring in Chinese Studies, teachers and academics doing research on the Chinese language, literature and culture.

4.3. Popular blog types

Chinese blogs consisted of personal-type blogs, k-logs, aggregators and mixed-type blogs. Filter blogs where bloggers developed narratives or discussions based on commentaries of selected hyperlinks to other sites did not exist in the Chinese blogosphere.

![Figure 1: Blog types](image)

The majority, 60%, were personal-type blogs where the blogs served as bloggers’ online diaries. In a personal-type blog (e.g. http://blog.omy.sg/fungtasia/), the blogger narrates and reflects on his or her personal life experiences related to work, school and family life. A k-log serves as a knowledge management system or repository where the information or references blogged about are specific to one domain. 10% of the Chinese blogs belonged to this category. Some examples of Chinese k-logs included blogs on food, Chinese history and the historic Bukit Brown cemetery (e.g. http://bukitbrowntomb.blogspot.sg/). An aggregator collates information from multiple online sources. In most cases, individuals operating aggregators did not express their opinions on the blogs. About 2% of Chinese blogs were aggregators, collecting news articles on politics, the economy and culture in Singapore (e.g. http://xinguozhi.wordpress.com/). The remaining 28% of the blogs were mixed-type blogs. Some of these mixed-type blogs were personal-type blogs and k-logs that included commentaries based in hyperlinks to news websites and YouTube videos (e.g. http://blog.omy.sg/annalim/).

4.4. Issues blogged about types

The most common topic blogged about is “personal experiences”, with about 75% of Chinese blogs containing entries on bloggers’ personal experiences such as their travels, dining experiences and time spent with friends and family (see Figure 2). Bloggers’ interests and hobbies was another common theme, with 46% of the blogs containing posts on these topics.
Two categories of topics merit some discussion here. About 31% of Chinese blogs contained posts related to the arts and culture. This category included topics on the Chinese language, culture and traditions. A dominant theme of discussion was the declining standards of Chinese as a mother tongue language in Singapore with some bloggers cautioning against implementing any policy of making it easier to learn the language in schools as they fear it might lower its standard (e.g. http://blog.omy.sg/shehu/ and http://blog.omy.sg/ahgongahmagoodoldtimes/).

A small group of bloggers (19%) provided occasional commentaries on certain policies or political issues, ranging from media regulation to transportation policies. For example, some bloggers questioned the rationale behind the move to license online news websites while others attributed declining traffic conditions to poor planning. Only about 4% can be called socio-political blogs - blogs that focus mainly on politics and policies related to Singapore. The study also established that “politics” as blogged about in the local Chinese blogosphere were not limited to Singapore politics. Since the study includes foreigners working or studying in Singapore, there have been instances of Malaysians blogging about political campaigns and elections in their country of origin. However, these Malaysian Chinese bloggers did not write about Singapore politics.

### 4.5. Bloggers’ affiliations

Almost 90% (179 blogs) of the blogs had badges (defined by Herring et. al. as visual representations of a blogger’s affiliation with a group, association or cause). The most common badges were those related to blogging awards such as the Singapore Blog Awards - bloggers who featured these badges were either nominees or recipients of such awards. Other examples of badges included those of the Liverpool Football Club and Bento Bloggers Network. While there was one blog that contained a badge featuring the ribbon symbol of the HIV/AIDS awareness campaign, there was no indication of the rest of the Chinese bloggers’ affiliations or support for well-known campaigns and movements such as “Repeal 377A”, Pink Dot Sg or Save Bukit

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5A campaign to repeal Section 377A of the Penal Code which criminalizes sex between two men, with provisions for a jail sentence for up to two years.
Brown. This contrasts sharply with the high prominence at which the same issues are featured on English blogs (Soon, 2013; Soon & Cho, 2014; Soon & Kluver, 2014).

We also analyzed bloggers’ hyperlinking patterns to ascertain the types of networks bloggers build in the cyberspace. Over half of the Chinese blogs linked to other blogs on their blog rolls, with an average of 23 links to other blogs. On the whole, bloggers were more likely to link to other blogs if the linked blogs were also written in Chinese or if they covered similar topics. About 49% (98 blogs) of the blogs had links to websites and blogs created by the same blog owners. Some of these linked blogs were created earlier by the owner and have since been discontinued. 38% of the blogs (76 blogs) also linked to other websites. Similarity in content or focus could be a possible reason for these linkages. For example, a blog with photographs documenting a blogger’s travels had links to a website that provided tips on photography. Similarly, food blogs feature linked to websites related to nutrition and restaurant guides.

4.6. Mainstream Chinese media as reference, not adversary

Chinese blogs linked to Chinese news websites such as Lianhe Zaobao and MyPaper (two newspaper dailies). Some blogs post scanned images of newspaper articles or included hyperlinks to news websites and structured commentaries around the topics featured in mainstream media. The mainstream media were used as a source of information and reference in Chinese blogs. This is different from English socio-political blogs which used mainstream media as an object of critique, pointing out limitations and perceived biases in media coverage of contentious political and social issues (Hussein, 2008; Soon & Kluver, 2014).

An example of such a blog is Sg Facts Blog (http://sgfactblog.wordpress.com/), a 15-year-old blog which was among the few aggregators in the Chinese blogosphere. The blogger aggregated mainstream Chinese media articles and reports and organized them according to categories such as “Population”, “Housing”, “Education” and “New Media”.

4.7. A-political nature of Chinese blogs

As established earlier, a small number of Chinese bloggers blogged on political issues (e.g. language policies) and on an ad hoc basis. They occasionally adopted a political stance when raising their objections to newly implemented policies. Examples of such narratives of resistance include voicing one’s doubts about the Nominated Member of Parliament scheme and criticizing the logic behind subjecting online news websites to licensing. However such contrarian viewpoints on politics and policies were rare and not sustained.

Less than 10% could be considered as socio-political blogs where most of the blog posts are on social and political issues. A discernible difference was observed in the approach these bloggers adopted when writing about political issues as compared to English bloggers. Earlier studies have established that English bloggers tend to be critical of the government and its policies, with the majority being very acerbic in their criticisms (Soon & Kluver, 2014; Soon & Tan, 2013). The few

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6 An annual campaign that advocates the freedom to love for the LGBT community and culminates in a picnic at the Speakers’ Corner.

7 A joint campaign by various groups to protest against state plans to construct a highway through part of Bukit Brown, Singapore’s oldest cemetery.
Research Papers, Case Studies and Policy Papers

Chinese socio-political blogs adopted a more balanced and moderate approach, a stark contrast from the confrontational discourse present in English blogs.

This was evident in how they acknowledged different perspectives when discussing different policies. Two such examples were Ren Min Lun Tan (http://wangruirong.wordpress.com/) and Unlimited Blue Skies (http://kokchwan.blogspot.sg/). When the blogger of Unlimited Blue Skies commented on the Punggol by-election, the blogger discussed the implications of Workers’ Party’s win and what their victory meant for local politics. However, the blogger also cautioned that only time would tell if having more opposition in the parliament would make a difference. There is a stark absence of name-calling and vitriolic speech. Their apolitical nature was evident in the absence of endorsement (through badges) of popular campaigns organized by the civil society, unlike in the English blogosphere (as presented in Section 4.5).

5. Conclusion

We had set out to ascertain the characteristics of the Chinese blogosphere in Singapore and explore the extent of politicization among Chinese blogs. While there are occasional posts which point to Chinese bloggers’ interest in social issues such as the plight of Singapore’s elderly, the declining standards of the Chinese language and Singapore’s immigration policies, our study elucidates that Chinese bloggers generally blog alone. By this we mean that blogging to Chinese bloggers is solely a personal activity as opposed to a community-related one. Most of the content on their blogs were about their personal experiences and their blogs were conduits for them to express their personal views and to showcase their pastimes and interests (e.g. food, travel, photography and music). Furthermore, with the exception of linking to other blogs and websites dealing with similar topics, there is little or no evidence of communication among the blogs. Most Chinese bloggers did not hyperlink to, cite or quote other bloggers in the articles (posts) on their blogs. Our analysis found that Chinese bloggers did not use their blogs to galvanize support for a specific issue.

One reason for the blogs’ apolitical nature might be the “chilling effect” of earlier clampdowns on Chinese student movements in the 1950s and 1960s. Those movements were responses to policy changes made by the colonial government to the Chinese education system, the dissolution of the Singapore Chinese Middle Schools Students’ Union and the drafting of young men into the army. Each protest episode was met by retaliatory actions ranging from the government threatening to close down the schools and to arrest student leaders. Describing the students involved in protests as “idealists” but “manipulated” by the Communists within the student movements, Liu and Wong (2004) noted that the student leaders “were either detained or left school and were thus deprived of an active platform”. Over time, Chinese education became associated with communism and the People’s Action Party which assumed leadership “sought to distinguish itself as ‘non-communist’ and as the vanguard of a new ‘multiracial’ nationalism” (Kwok & Chia, 2012: 234). The “public voicing of grievances within a discourse of race” also led to one being labelled as a “racial chauvinist” (Chua, p.75). Such labelling could have contributed another layer to the chilling effect, further deterring people from speaking their minds.

An interesting comparison can be made between Chinese blogs in Singapore and from other countries where the Chinese language is used in blogging. While some studies have considered the use of blogs for non-political reasons (e.g. Law & Cheung, 2010; Tse & Zhang, 2012; Yang, 2007), several others examined the political significance of blogs in China. On the level of politicizing of blogs in China, Zhou (2009) found Chinese bloggers to be actively discussing politically sensitive
issues, to the point of criticizing the Chinese government. In their study of blog use by gays and lesbians in China, Kang and Yang (2009) posited that “the emergence of blog technology has generated a rhetorical borderland that allows homosexual people in China to circumvent the oppression of heterosexual hegemony” (p.25). However, such optimism was tempered by the Chinese government’s capacity and competency in reining in online discourse and the adherence of a large part of the population to official versions of Chinese history and current affairs (MacKinnon, 2008). It is evident that Chinese blogs in Singapore do not play as a large a role in contributing to public discourse compared to Chinese blogs in China. The stigma attached to Chinese activism could still be at work, signaling that blog use reflects the nuances present in a society’s political and historical context. Earlier, a China-born blogger interviewed by the mainstream press had alluded to being more "sensitive to others" when blogging after migrating to Singapore due to the country’s history and multi-culturalism (Zhao, 2010).

There are several limitations to this study. First, although keyword searches and the snowballing process have yielded as exhaustive as possible a sample for the Chinese blogosphere, there is a possibility that some blogs may have been excluded. For example, blogs which do not provide any information on the bloggers’ locality and nationality, and do not have any content related to Singapore may have been excluded even though they may be started by Singaporeans or Singapore residents. Second, some bloggers might have moved to social media such as Facebook and we would not have captured discourse on those platforms. Finally, the content analysis method limits our analysis of the reasons behind bloggers’ blogging patterns.

Despite the limitations, this study is a first in providing an empirical snapshot of Chinese blogs in their current form. It serves as a record for purposes of comparison with future stages of non-English blogs’ evolution and provides a starting point for further research on their contributions. In summary, our study sheds light on an unknown population of the online space which has so far been omitted in public discourse. Our findings also caution against transplanting common assumptions and findings pertaining to blogs in a particular language to those written in another language. Differences in terms of approach and level of politicization are observed even among Singaporeans blogging in different languages (e.g. English versus Chinese), a clear indication that nuances of online discourse must be considered along political and cultural forces that shape institutional developments.

References


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An Illusion of E-Democratization

China’s Social Memory in the Country’s Blog Narratives

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Abstract: This paper will study the role that new media plays in shaping social memory by exploring China’s grass-root narratives existing in blogs. By conducting a content analysis combined with 20 interviews, the main features of China’s storytellers are illuminated. While emphasizing the role of narratives in shaping a nation’s social memory in China, explanations for the source of a new social memory are being searched. In doing so, the linear-model of cause and effect between technology and social change, including McLuhan’s term “digital village” are being questioned. The author predicts that, under today’s circumstances, China’s memory policy including an internalized self-censorship will still have its effectiveness.

Keywords: Social memory, narratives, democratization, content analysis, memory policy

The world is witnessing a tremendous change in global communication. Thanks to the emergence of information telecommunication technology (ICT), people everywhere can theoretically communicate with each other in real time regardless of remote distance. However, global communication is not merely a matter of technology. It is embedded into much more in-depth political, cultural and psychological contents. Memory, more exactly, social memory is one of these configurations.

In this paper, it is intended to show one tiny part of the narratives emerging on the Internet in China, primarily as non-mainstream media in a “bottom-up” form, whose effect is to enhance a social memory created firstly through official media in a “top-down” way. The paper will examine the impact of bloggers as storytellers on the process of constituting a memory primarily for young generations in a China’s controlled Internet. By doing so, views on the causal relationship between the diffusion of access to the Internet and readiness for democratization will be scrutinized critically.

My research questions were conceptualized as follows:

To which extent to Chinese bloggers as “storytellers” might influence their readers in shaping their memory? What kind of configuration do Chinese bloggers have while telling stories? What consequences do such narratives have on today’s political culture in China?

Methodologically, content analysis of 200 Chinese blogs from the period of June-July 2010 combined with 20 interviews with Chinese media people in 2010 and 2011 was conducted. The results of both content analysis and interviews reflect the landscape of China’s media policy and memory policy. They helped to clarify the bottom line of self-censorship existing in China.
I contend that exactly due to the censored Internet, digital narratives such as blogs can only create a kind of patched social memory which will be fairly supportive to the existing regime in China.

The paper will be divided into five sections. Section 1 is devoted to the background of my research, which can characterized as prevailing optimism regarding e-democratization. Section 2 will illustrate a close link between social memory and narratives of blogs. Section 3 demonstrates the Internet landscape in China, followed by Section 4 showing the result of interviews. Finally, Section 5 will present the findings of content analysis.

1. The Internet and democratization - the source of optimism

The widespread use of the Internet is a crucially important step in the development of ICT. Up to date, its advantages have still not been exhausted. Obviously, there has been a common understanding that a strong connection exists between the Internet and diffusion of democracy (Ferdinand, 2000:55-57 Edwards 2009:113-114). In line with this perception, many social scientists saw in the emergence of the Internet and its widespread application in the late 1990s an important agent of positive social change. Two aspects serve as source for such a euphoric view on the role of the Internet in non-democratic countries. One lies in the widespread argument that the Internet is a new stage in the evolution of ICT which could eventually create a "bottom-up" public opinion. The latter would not conform with official discourse and this would eventually undermine existing authoritarian regimes (Hill 2003:527-533).

Another source of this current of optimism lies in the nature of the Internet itself. Before ICT Networks arose, newspapers were locally oriented and their delivery was physical; TV and Cable TV had a one-to-many mode without any interaction; and the telephone was used only in a one-to-one mode. The emergence of the Internet has enabled not only a huge extension of existing print media, it has also quite simply altered the whole pattern of human communication and ultimately the way of everyday life, and this pattern of communication favors democratization.

Shayne Bowman and Chris Willis belong to the group with a strong faith in the two effects of Internet. They contend that the Internet creates grass-roots journalism and that it will finally undermine the existing power of the governing regimes in non-democratic countries. (Bowman and Willis, 2003)

While endorsing ICT as a "technology of freedom", many scholars of social sciences in the West, however, neglect two fundamental factors. Firstly, this technology can also be used by the opponents of freedom, especially when the censorship has been internalized. Secondly, it is not technology, but political culture which determines the degree of political freedom and subsequently, the probability of democratization in a given country. As a very important component of political culture, social memory could become an obstacle to citizens’ strivings for freedom, when one-sided, unbalanced narratives prevail. This will be demonstrated via the results of the survey illustrated in the fourth section.

2. Social memory and the storyteller

Human beings can be characterized as holders of memory. Like individuals, each society has a dominant social memory or historical consciousness. Social memory refers to totality of social experiences of a big social group, be it a nation or a generation. Social memory is embodied in a
society’s personal or vicarious beliefs about the past. These beliefs are shaped mostly through adopting intergenerational narratives. From the point of view of political science, social memory is the base of political behaviour and thinking of social groups, because the memory of past is reflected in the view on today’s world, the vision of future and the respective value system.\(^1\) The more democratic and liberal a society is, the more pluralistic and communicative the social memory can be.

Following Halbwachs’ view in his groundbreaking study *Les cadres sociaux de la mémoire*, all types of memory have a social dimension. Society strongly influences individual memories. Halbwachs highlights that social groups, be it families, generations, institutions or nations, share narratives of the past and hand them down, retell and modify them. Collective memory is shared, passed on and also constructed by the group, or modern society (Halbwachs, 1966).

Social memory is derived from narratives and it, in return, can also determine the content of narratives. In any socialization process, a person’s knowledge of past is based on numerous “stories” or more exactly, narratives, either imparted by others, or experienced by himself.\(^2\) The meanings attributed to the past are a key component of identities, and as such are usually not an easily divisible and negotiable good (Wolf 2004:6). The identity of a person further determines his political attitude and behavior. A nation’s political attitude and behavior constitutes the nation’s political culture. Figure 1 reflects a triangle interaction between social memory, narratives and political culture:

```
Social memory

Narratives

Political culture
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Figure 1: Interaction between social memory, narratives and political culture

Source: author’s own compilation

One important aspect of social memory is its stark dependence on communication devices and technology. It is simply impossible for social memory to be consolidated and spread without applying media in modern time. Due to a relatively high degree of mobility in China (migrant workers, students enrolled by universities in other provinces, etc.), the Internet has become an important tool for communication and narration in the country.

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\(^1\) This is not the place to discuss the term „social memory” in detail. In reality, there are many notions invented by scholars of social memory, which have a certain similarity. Habwachs prefers using the notion „collective memory”, Jan Assmann invented the notion “cultural memory”. Edward S. Casey tries to make more detailed differentiation between “social memory”, “public memory” and “collective memory”.

\(^2\) Chatman differentiates “stories” from “narratives” by emphasizing two aspects of narratives: narrative structure and discourse, saying that a story is characterized through its matter-of-factness while a narrative entails views of narrators (Chatman 1993). In this paper, however, such a differentiation will not be adopted. Both terms are used interchangeably.
The close link between social memory and ICT is mainly reflected in the formation of narratives via modern communication devices and technology. In this paper, Chinese narratives in blogs are being regarded as a certain form of social memory, which serves partially as a base of a national political culture. The latter implicates how stable a regime is and whether a speedy democratization process will be possible in China.

3. Internet development and blogs in China

Mirroring China’s achievements in the economic sector, the increase in the number of Internet users in China in the last ten years is astonishing. Today, more than thirty percent of the population have become members of the digital world. In comparison to developed industrial countries, China still lags behind in respect of the proportion of digitalized families regardless of the absolute number of Internet users. However, in comparison to India and many other developing countries, China takes a clear lead in terms of internet penetration. (CNNIC, 2014)

According to the estimate of the CNNIC (China Internet Network Information Centre), China has had 632 million Internet users. The Internet penetration rate has reached 46.9%. Among Internet users, about 330000 are fans of blogs. That is, three quarters of Chinese netizens (total number 457000 thousand) are blog readers.

The Internet is gaining momentum among young people, especially those who are either studying at university, or who have completed their university study. These are the most active component of the younger population in the country’s political and cultural life. The future of the country depends very much on what types of views this group develops (Tai 2006:30). Table 1. demonstrates a general trend in terms of China’s blog development.

Table 1: Developments of Chinese blogs the period of 2002-2009 (thousand)

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Till June 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of bloggers</td>
<td>510</td>
<td>1590</td>
<td>4590</td>
<td>13060</td>
<td>34220</td>
<td>47000</td>
<td>162000</td>
<td>181000</td>
</tr>
<tr>
<td>Active bloggers</td>
<td>230</td>
<td>750</td>
<td>1840</td>
<td>4310</td>
<td>9240</td>
<td>17010</td>
<td>87320</td>
<td>113480</td>
</tr>
<tr>
<td>Increase rate of bloggers</td>
<td>212%</td>
<td>189%</td>
<td>185%</td>
<td>162%</td>
<td>37%</td>
<td>245%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Increase rate of active bloggers</td>
<td>211%</td>
<td>145%</td>
<td>136%</td>
<td>114%</td>
<td>84%</td>
<td>413%</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 reveals that the combined age groups 20-29 and 30-39 make up half of China’s Internet users.
It is indisputable that blogging is one of the typical forms of “bottom-up” journalism. In Chinese society, it has already become part of the socialization process in terms of informing the audience about historical facts and events. Nevertheless, active authors still make up only 36% of the weblog community (CNNIC, 2009) regardless of the rapid increase of the number of bloggers. Active bloggers are not simply Internet users. Generally speaking, active bloggers should have leisure time to tell stories and convey ideas. At the same time, they should be also greatly motivated to publish things continuously.

4. China’s memory policy

Before setting out some findings from research on Chinese bloggers in shaping a new social memory, it might be helpful to get an overview of what the Chinese government’s memory policies look like.

As confirmed by the interviewees, China has been following a strict “memory policy” since opening up to the world. Compared with the era of Jiang Zeming (1989-2003), his successor Hu Jintao has developed a new strategy in terms of censorship, which is totally adopted by the fifth generation of CCP’s leadership under Xi Jinping. On the one hand, the leadership has tightened the reins on narratives coming from abroad. Starting from 2007, Youtube and Facebook were shut down for Chinese Internet users. Many websites of newspapers based in Hong Kong were “disconnected” with Mainland China. On the other hand, the leadership has introduced a two-layer-memory policy. The first one is targeted at the working class and ordinary people including citizens without any knowledge of foreign language. For them, any sensitive information about the “dark chapter” of the CCP must be strictly controlled.

The second layer of memory policy is targeted at the Chinese middle class. It is well-known that China been trying to improve its image internationally by allowing some media to present their journalism in a relatively liberal way. For instance, the TV station “Fenghuang (Phoenix TV – www.ifeng.com)” based in Hong Kong is a poster child of the Chinese government. It is run by a man under strong patronage with permissions on some issues to criticize local governments in China (Shirk 2010).

The memory policy in China is embodied mainly by censorship of the press as well as the Internet. However, it goes far beyond the censorship over media. Historical museums, monuments and other forms of “material culture” are products of a memory policy as well. A fundamental question of China’s memory policy is what should be remembered and what should be forgotten. In case of media, the question can be translated as what is allowed to publish what not, which is relevant to media workers. Based on 20 interviews with journalists, editors of various publishing houses and voluntary “Internet police” working at universities, which were conducted in the period of August 2010- March 2011 by the author of this paper, media workers in China have been instructed what they are allowed to report publicly online as well as in print media. These instructions are sometimes quite clear, as they were once incarnated in the notorious Document No.9 of the CCP, where the “Seven No’s” are clearly listed. Often the instructions are vague and

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3 The “Seven No’s” refers to seven key words or key issues which are not allowed to report or discussed in Chinese media, neither in Internet nor in print media. Universal values, constitutionalism, civil society, to name just a few (Marquand 2014).
arbitrarily formulated. Interestingly, almost all media workers know what they are allowed to publish. In this respect there is an unwritten law which is in journalist jargon called “the red line”. The following figure (Figure 3) show which topics people are allowed to write about in local newspapers, or in officially controlled Internet news portals.

**„Dos & Don‘ts“ – Red Line**

<table>
<thead>
<tr>
<th>Competence of the Party</th>
<th>Competence of Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tibet-issue/Xinjiang-issue/Taiwan-issue</td>
<td>Soft information</td>
</tr>
<tr>
<td>History of the CCP – dark chapters</td>
<td>Scandals and affairs of foreign politicians / stars</td>
</tr>
<tr>
<td>Foreign policy</td>
<td>Criticism against the Party with „happy end“</td>
</tr>
<tr>
<td>Territorial disputes</td>
<td>Information about stock market</td>
</tr>
<tr>
<td>Ethnic issues</td>
<td>Information about countries abroad</td>
</tr>
<tr>
<td>Social conflicts</td>
<td>Selected foreign reports translated from a foreign language</td>
</tr>
<tr>
<td>Direct/ obvious criticism against the state</td>
<td>Grey zone</td>
</tr>
<tr>
<td>Democratization</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 3: The Red Line – An unwritten rule for media people**

Source: author’s own elaboration based on the interviews conducted in 2010

It is to be noticed that the topics in left column refers to the so-called politically sensitive issues. In most cases, the Department of Propaganda of the Chinese Communist Party (CCP) issues from time to time instructions or guidelines for official media and Internet providers, how a certain sensitive topic should be dealt with. In the case of recent occurrence such as “Occupying Central” in Hong Kong, the authorities instructed that all news about these two countries should be based on the reports from the official Xinhua news agency.

Topics in the right column have generally few restrictions, so long as there is no obvious “vicious intention” toward the existing power. One of them, for example, is “criticism against the Party with an happy end” refers to online or offline publications in which the author criticizes some “unhealthy phenomena” of the CCP, but it ends up with the conclusion that the CCP is finally capable of solving these problems.

As the figure above tells us, Taiwan issue and issues related to Tibet, Xinjiang are not open for comment, at least not in the way that the antagonistic views against the CCP’s policy are not tolerated. The same is true of issues like foreign policy, territorial disputes, ethnic problems, social conflicts and democratization in China. Recent developments indicate, however, that the central government allows more supportive comment on some special issues of China’s foreign policy. Under certain circumstances, views presented by individuals, which China officially does not share, but in reality does want to convey to respective “receiver”, will also be allowed to get published. A typical case are the increasing number of critical comments on North Korea in China’s Internet, which seemingly do not conform with the official line. Nevertheless they were
tolerated, because North Korea has posed a headache for the administration under Xi Jinping (Zhang 2015).

The vagueness of censorship instructions provide often grey zone (see Figure 3) for media workers as well as netizens for their publication. It then depends on an author’s “wisdom” to judge whether his/her publication or poster will cause trouble with the authorities. In this sense, all the media workers and netizens are forced to conduct self-censorship if they do not want to risk their profession and the like. A self-censorship means internalization of the “rules of game” made by the CCP, implicitly and explicitly.

When there are censorship and self-censorship, selected narratives will become a normality. In my view, China’s social memory is mostly created by the ruling elites via selection. The main feature of selection of historical facts is embodied by China’s technically but not morally successful censorship of Internet as well as conventional mass media. Exactly in the Internet, netizens also contribute to shaping a nation’s memory by delivered partly self-censored, partly not, narratives. This is what the next section wants to display.

5. Major findings

5.1. Criteria for choosing blogs

In 2010, together with two of my assistants, the author undertook a content analysis of 800 blog texts compiled by 200 bloggers located in various Chinese providers. Previous to the survey, three criteria were employed for choosing blogs for analysis. Firstly, only the bloggers with narrative character (storytelling) were chosen as objects of analysis. The reason for this lies in the point that narratives “filled with plots and a variety of social actors”4 are the base for forming social memory. A historical fact or, more exactly, a story about an event or a person should have three moments: time, space (location) and people. Only “stories”, as vivid descriptions of the past, have the credibility capable of contributing to social memory. Secondly, stories which will be analyzed are politically relevant. These stories should be narratives which are thematically related to the social and political life of Chinese people. Discourse about soap operas and the like are not the objects of this research, and thus are not included in the 800 blogs analyzed. The third criterion was the popularity of the blogs. In most cases, quite simply, the bigger the number of readers, the greater the popularity. Based on this perception, 200 bloggers were chosen from the most popular portals in China. Blog portals which enjoyed a high popularity by that time were

- www.sohu.com.cn
- www.sina.com.cn
- www.163.com

Technically, my team developed two EXCEL sheets to record the result of analysis with manual coding. One concerns the information about the bloggers and the other, the result of the content analysis. Further, the results on the second sheet were elaborated via statistical methods.5

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4 I should thank one of my peer-reviewers for his/her giving me this precise definition of narratives.

5 Unfortunately, the team failed to provide inter-coder reliability information, which made the deficit of the research very noticeable.
5.2. Basic information about the bloggers: age and profession

Based on my second survey conducted in 2010, there are obvious big differences regarding politically relevant story-tellers whom were investigated. Among 200 bloggers for investigation, the age group of 18-25 makes up only 4%. The most active age group (38.5%) lies between 36-45, while bloggers above 45 are the second biggest group (29%) which is fond of telling politically relevant stories.

Since most bloggers use false name, it is difficult to tell the real gender of authors of narratives. Thus, no efforts were made in collecting data for gender. However, based on different sources, it is easily to be estimated that majority of story-tellers are male.

As to the professions of the storytellers to be investigated, four categories were developed: 1) media workers, 2) Academics (working at universities or research institutes) and students, 3) Economists (managers and/or accountants) and technicians and 4) Manager and CEOs, 5. State servants, 6) others. Admittedly, this is a simplification. However, it made the presentation of the statistics more easily understandable. The results of the survey reveal that media workers with 35% are the biggest group for politically relevant narratives, while academics and students lag closely behind that (34.5%). This observation indicates that, despite of their work in a press or at a radio and TV station, there is still a great need for media workers to express themselves in an unofficial way.

5.3. Time period of narratives

Regarding the time period the stories originated from all these 800 samples, the project team has artificially developed six periods. The first begins with the pre-republic period, that is before 1911. The second refers to the period starting from the first Republic in China (1912) till 1948 – the foundation of the People’s Republic. The third is the ‘Mao Zedong Era’ (1949-1977); the fourth Deng Xiaoping’s Era; the fifth Jiang Zemin’s administration. The last one refers to Hu Jintao’s administration starting from 2003 till the time of research (see Table 2).

<table>
<thead>
<tr>
<th>Division of different periods</th>
<th>Frequency rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1 Before 1911</td>
<td>0.25</td>
</tr>
<tr>
<td>Period 2 1911 – 1948</td>
<td>5.02</td>
</tr>
<tr>
<td>Period 3 1949 – 1977</td>
<td>5.77</td>
</tr>
<tr>
<td>Period 4 1978 – 1989</td>
<td>1.51</td>
</tr>
<tr>
<td>Period 5 1990 – 2002</td>
<td>0.38</td>
</tr>
<tr>
<td>Period 6 2003 – 2007</td>
<td>1</td>
</tr>
<tr>
<td>Period 7 2008 – 2010.1</td>
<td>86.07</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
</tr>
</tbody>
</table>

It is interesting to discover that events taking place during Hu Jintao’s administration (2003- today) make up such a big share of the total, despite the age range of the bloggers, followed by the Mao Zedong era (1949-1977). This suggests that bloggers are more concerned about the issues they are facing today than “yesterday”. Yet, Mao Zedong’s era is not irrelevant, it still remains a significant theme among the storytellers.
5.4. **Major findings (1): Content within and outside the “red line”**

As to the content itself, texts written by bloggers were divided in two parts –in accordance with Figure 8: one is called “blogs within the red line” and the other, “blogs outside the red line”. As mentioned above, in the area of sensitive stories within the “red line”, the policy of the Chinese authorities is that either you should follow the official version of narratives while talking about these issues or your publication will be banned within the territory of the People’s Republic. So far as the “blogs outside the red line” is concerned, they are mostly tolerated because they do no or little harm to the existing system.

During the research, it was noticed that those who attempted to exceed the red line were not necessarily taking an oppositional stance against the versions of history presented by the official side. On the contrary, most of them kept strictly in line with the official version of the narratives. In this sense, information from Figure 4 is insufficient, because they cannot fully reveal the real political stance of the authors having exceeded the red line. In most cases it is noticeable that the majority of bloggers who touched issues within the red line agreed with the official view.

![Figure 4](image.png)

**Figure 4 The division of the types of the stories (based on the idea in Figure 2)**

*Source: author’s own elaboration*

When looking at the issues within the red line mentioned most by the story tellers, one can perceive that three fields draw a great deal of attention from Chinese bloggers: The history of the CCP (62%), international affairs (21%), and the issues relating to Taiwan, Hong Kong and Macau(16%). The reason for bloggers’ devoting themselves to the CCP’s history, for example, lies in the fact that more and more unofficial narratives about the history of the party has been emerging. One important source of different stories is the memoirs of senior party members or their relatives. The abundance of such “stories” have led to a kind of depoliticization or decentralization of the Party’s history, especially those, which might not harm the image of today’s leaders. It is true that the official narration of the Party’s history lags far behind the real developments. This enhanced the curiosity of bloggers to reiterate the stories from different sources. In this sense, the amount of bloggers’ narratives on a certain field reflects the accessibility and availability of “leaked” stories. The content of these stories in terms of political correctness can be localized between the official media and the grass-root media. In short, the grey zone between the two parts, namely, within the red line and outside the red line has been enlarged in the last decade.

According to the data collected in this project, most part of bloggers seems not to be interested in topics within the red line. 149 of 795 blogs (out of 800, 5 were invalid) contain issues listed within the red line. Among them, 50 texts imply narratives related to the Cultural Revolution (1966-1976), 31 texts show interest in Mao Zedong’s life, making these the two most popular themes. No text
touched highly sensitive topics such as the Falungong Sect. There is no mentioning of either the Students’ Movement in 1989 or the Tibet issue.

Such a depoliticization of political history taken by the narrators should not be simply evaluated as political apathy. Rather, it is a synergy of different factors. The major factor is their awareness of the existence of censorship. They know that even if they tell stories which do not conform to the CCP’s interest, then they will be deleted. But most importantly, the storytellers simply do not risk their career by posting a story. This awareness leads to internalization of the existing memory policy as 5.5 demonstrates.

5.5. Major finding (2): Political stance and the way of story-telling

The main part of the analysis is to examine the political stance of the story-tellers and the way they tell the story. In this context, there are three types of political stance: Three types of political stance are defined: 1) “critical stance” indicates authors purposely criticizing the prevailing ideology or the authorities’ memory policy while “telling stories”; 2) “neutral stance” refers to those who are not fully conform with the official view, yet they don’t intend to oppose the official memory policy; 3) A “uncritical stance” means that the blogger are fully in line with the official version of historical facts and events in their narratives.

Having observed the bloggers’ political stance contained in their narratives through qualitative analysis, the project team comes to the conclusion that only about 14% of bloggers adopt a clear stance critical of the official version of historical facts. That is, they question directly the real existence of today’s mainstream description of the past. Most of the bloggers however, do not care about the difference between the facts and fictions or distorted facts which are reiterated through the mainstream media. (see Figure 5). 47% blogs’ authors conform with the main stream narrations, while 39% of bloggers take a stance in which they are not totally in line with official doctrine, but they do not intend to criticize or even to offend official story-tellers. Their version of stories differs slightly from the official one. However, this group of storytellers consciously neutralize this difference.

![Figure 5: Political stance of the bloggers](source: author’s own elaboration)

Parallel to three types of political stance, three types of narration were defined. The latter reflects the way in which narrators tell their stories. In comparison to the political stance, these three categories (1. Normative; 2. Cognitive; 3. Emotional) reflects directly and/or indirectly the educational level of the storytellers as well as an emphasis on morality. The normative feature of a story can be characterized, for instance, through using a tone of moral sermon such a phrases as “we should..” “we must..”. The cognitive feature of a story lies in author’s orientation on balance and historical facts. Finally, an emotional storyteller tends to give vent to his feelings in an
impassioned narrative, without paying much attention to correctness of historical data. According to the survey, stories with pure cognitive and scientific character constituted obviously the biggest part (42% of the 800 texts). A large percentage of other bloggers poured much emotion into their stories (48% of the 800 texts). A further 10% of the storytellers took a normative perspective in their narratives (see Figure 6).

![Figure 6: Three types of narratives](source: author’s own elaboration)

By cross-tabulating the data about the political stance and those about the attitude (the way of telling stories), it is noticeable that those story-tellers whose stance conforms with mainstream discourse tend to be more normative, while the storytellers taking a neutral stance toward official narrations tend to judge the events or persons in their stories on a cognitive basis. Narrators who have a critical stance tell their story in a more emotional way (See Table 4).

**Table 3: Stance and attitude cross-tabulation**

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Conformity</th>
<th>Neutral stance</th>
<th>Critical stance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive/Scientific</td>
<td>42.34%</td>
<td>44.74%</td>
<td>12.91%</td>
<td>100.0</td>
</tr>
<tr>
<td>% within stance</td>
<td>37.5%</td>
<td>48.06%</td>
<td>39.81%</td>
<td>41.94</td>
</tr>
<tr>
<td>Emotional/Empirical</td>
<td>46.19%</td>
<td>38.06%</td>
<td>15.75%</td>
<td>100.0</td>
</tr>
<tr>
<td>% within stance</td>
<td>46.81%</td>
<td>46.77%</td>
<td>55.56%</td>
<td>47.98</td>
</tr>
<tr>
<td>Normative</td>
<td>73.75%</td>
<td>20%</td>
<td>6.25%</td>
<td>100.0</td>
</tr>
<tr>
<td>% within stance</td>
<td>15.69%</td>
<td>5.16%</td>
<td>4.63%</td>
<td>10.08</td>
</tr>
<tr>
<td>Total</td>
<td>47.36%</td>
<td>39.04%</td>
<td>13.6%</td>
<td>100.0</td>
</tr>
<tr>
<td>% within stance</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Authors with their narratives within the red line tend to identify themselves with the official version of the historical facts and events, while those who took a critical stance toward the authorities, conveyed their ideas mostly in the stories outside the red line.

The age group of 18-25 has seldom touched issues within the red line, while the group of 36-45 was more keen in telling the stories within the red line.

Based on the Cross-tabulations of certain variables, we can perceive that those who prefer telling stories with topics within the Red Line, tend to be conformed with the main stream narratation,
while those who are critical toward official “big stories”, are more likely to tell stories with topics which are outside the Red Line (See Table 5)

Table 4: Stance and topics within or outside the Red Line cross-tabulation

<table>
<thead>
<tr>
<th></th>
<th>Stance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conformity</td>
<td>Neutral stance</td>
</tr>
<tr>
<td>Within the Red Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside the Red Line</td>
<td>43.34</td>
<td>40.56</td>
</tr>
<tr>
<td>% within topics</td>
<td>74.87</td>
<td>83.97</td>
</tr>
<tr>
<td>% within stance</td>
<td>63.51</td>
<td>33.78</td>
</tr>
<tr>
<td>% within topics</td>
<td>25.13</td>
<td>16.03</td>
</tr>
<tr>
<td>Total</td>
<td>47.1</td>
<td>39.29</td>
</tr>
<tr>
<td>% within stance</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Finally, through Chi-Square Tests and the Cross-tabulations of other variables, it is further notable that bloggers with the profession as media workers, economists or those who are working as white color tend to be to more critical toward official narratives while scholars, state servants and managers mostly avoid to confront or even challenge the official version of “big stories”.

Looking at the different age groups, those above 45 are more likely to hold a critical stance toward official narratives. Other age groups tend to be more “balanced” and they prefer a neutral stance. This reveals a very important aspect which can be noticed through memory studies probably in other political contexts: Young people under 45 in China have almost no direct negative experiences with the CCP, or at least they might have experienced some scandals of the Party relatively indirect or sporadically. They are generations who have constantly witnessed the economic growth in China. Logically, their political stance is hardly critical.

6. Concluding remarks

The study’s results strongly suggest that the Chinese authorities’ memory policies are currently working effectively with regard to the development of blogging as a tool for public self-expression about social and political affairs. Either through acceptance of official versions of history and current affairs, or through adopting ‘reformist’ or neutral stances, or through self-censorship, a majority of Chinese bloggers does not appear to be utilizing this new medium to seriously challenge their government’s versions of narratives. This point can also be supported by the results of 20 interviews with media workers and editors based in China in 2010. 85% of interviewees held that there should be special cautiousness when writing or publishing things concerning sensitive issues (i.e. those listed within the Red Line).

This study reveals that the emergence of the Internet accompanied by the grass-root journalism and narratives does not lead an authoritarian country into mature readiness for a change of political system. Obviously there are many factors at work in favor of China, if not in long term, then at least in short and medium term. One of them is exactly the political culture which can be partly reflected through the results of the study presented in this paper. The social memory of
netizens which has been highlighted through their narratives differs from that in the countries of the Arab Spring. In most cases storytellers in the Chinese blogs just reiterate what they have learned from other sources. These second-hand or even third-hand stories are directly or indirectly contributing to a vague and patched national memory, especially among young people, which in turn favours today’s authoritarian regime.

As it is well-known, each type of social memory has a certain inertia. Once it has been shaped, it will be static for a certain period. Take the picture of the Dalai Lama for example. It is obvious that in China, both in mainstream and non-mainstream media, the Dalai Lama has been never depicted as a moral preacher as people in the West are being informed. Nor has he been widely known as a winner of Nobel Peace Prize. Instead, many negative symbols are connected with this person according to the social memory of mainland Chinese. ranging from head and advocator of Tibetan slave system to vicious intention to separate the country etc. More importantly and woefully, many young people from Mainland China studying abroad, still believe the “stories” conveyed through the socialization process in the country.

As illustrated above, the censorship and self-censorship work hand in hand, intended or unintended. It is most unlikely that through the Internet or any other medium of expression, the legitimacy of the Chinese government’s interpretation of history or its memory policies, including its censorship practice, will be seriously challenged. Thus, the contribution which ICT and the Internet can make to the realization of Marshall McLuhan’s “global village” will remain strictly limited, at least in the case of China, it is unlikely that the Chinese national memory will converge with the cosmopolitan memory in the next one or two decades.

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A value-Based Design Approach for Online Deliberation

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Abstract: This paper presents a theory-driven approach for the design of online deliberation platforms. We start with a brief overview of recent trends in deliberative research, capturing in particular 5 salient values of deliberative democracy namely - Impartial accessibility, Reasonable discourse, Epistemic value, Binding Decisions and Dynamicity. These deliberative values will then be used to review the effectiveness of current online deliberation approaches. We then explicate the challenges involved in such value-based design for deliberation and propose our own set of 11 design approaches that can help improve the legitimacy of online deliberative processes.

Keywords: Online deliberation, Value-based design, Reasonable discourse, Impartial accessibility, Epistemic value, Dynamicity, Binding decisions, Legitimacy

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The later part of the 20th century saw a renewed interest to develop new and improved models of democracy (Gutmann, & Thompson, 2009). One of the most popular models to be developed is called deliberative democracy and it aims a form of democracy that aims to promote greater legitimacy for collective decisions and to deepen democracy through greater public engagement in political processes.

1. Introduction

Deliberative Democracy aims to do so by promoting collaborative reasoning and respectful disagreement among citizens during the decision making process (Gutmann, & Thompson, 2009). However, one of the prevailing criticisms of deliberative democracy is that it is hard to implement. Citizens are not always motivated or capable enough to contribute to a discussion and may instead choose to merely monitor political decisions from the sidelines (Fishkin, 1991).

The increasing prevalence of ICTs and the potential of web 2.0 to reduce the threshold for participation have reinvigorated our interest in deliberative projects (Chadwick, 2012). Online deliberation offers some key advantages such as ease of use (Chadwick, 2012), anonymity (Price,
2009), and exchange of ideas that help reduce patterns of social dominance (Price, 2009). Internet
technologies also allow for representative deliberation by enabling geographically dispersed and
demographically diverse participants to interact with one another for an unlimited time period
(Cavalier, KIM, & Zaiss, 2009 ). These observations suggest that the Internet could emerge as an
effective medium for facilitating deliberation.

This paper will present a "value-based design" approach to online deliberation, based on
theoretical foundations laid out by prominent deliberative democracy theorists. A theory-driven
approach to design can lead to design solutions that are beneficial and more successful than seat-
of-the-pants approaches(Briggs, 2006). In the next section we present our working definition of
deliberative values and a brief overview of existing deliberation platforms.

2. Related Work

In this section, we first provide an overview of recent trends in deliberative theory and introduce
key values that contribute to the legitimacy of deliberation processes. Following this, we present a
survey of existing approaches to online deliberation and discuss their effectiveness in realising
these deliberative values.

2.1. Deliberative Values

The deliberative model of democracy emerged from criticisms about the legitimacy of previous
democratic models. Legitimacy can be of two types-- input-legitimacy and output-legitimacy. A
political process is said to have input-legitimacy when it reflects the authentic preferences or will
of the citizenry. In common parlance, this can be likened to the notion -- "of the people". Deliberative democracy derives its input legitimacy from its focus on procedural fairness and
equal opportunity to all deliberators. A political process has output-legitimacy when it can
promote the common welfare of the citizenry. This is more commonly captured by the notion--
"for the people". Deliberative democracy derives its output legitimacy from its focus on solving
real-life problems. Below, we will present our working definitions of salient deliberative values
that have been suggested by deliberative theorists to bring greater input and output legitimacy to
the democratic process.

2.1.1. Input-Legitimacy

Early work on input-legitimacy can be traced to the 1960's when Habermas proposed his concept
of "public sphere", a discursive space that facilitates open, reasoned, and mutually respectful
exchange of opinions among citizens (Habermas, 1991). Since then many other normative models
of deliberative democracy have emerged, each exploring the space of normative values that are
needed for input-legitimacy. From our survey, the two of the most salient of these values are-
Impartial-accessibility and Reasonable-discourse.

Impartial-accessibility refers to the value that deliberation and its outputs should be publicly
available to all citizens without partiality (Gutmann, & Thompson, 2009; Fishkin, 1991). This value
also requires that the content of deliberation- the arguments and supportive evidence- to be made
"comprehensible" to the average citizen (Fishkin, 1991). The crux of this value is to ensure that
citizens have an equal chance of participating in political decision making.
Reasonable-discourse refers to value that deliberation between individuals should involve mutual respect and reciprocity. Gutmann & Thompson, have argued that deliberators have to be reasonable in the arguments they make--each justifying their arguments on the basis that any other fellow deliberator trying to attain fair terms of cooperation cannot reasonably reject them (Gutmann, & Thompson, 2009). The moral basis here is that citizens should not be treated as passive subjects to be ruled over, but as independent collaborative agents sharing the role of governance (Fishkin, 1991; Fishkin, & Luskin, 2005; Gutmann et al., 2009).

2.1.2. Output-Legitimacy

While some early theorists viewed deliberative decision making only through the lens of moral values, starting in the 1990s, researchers argued for a more holistic view of deliberation. This view emphasised, the need for increasing output legitimacy by equipping the democratic system with the ability to solve the problems confronted by citizens in their daily life. There are 3 salient values (see Figure 1) that have been proposed by deliberative theorists towards this end -- Epistemic value, Binding decisions & Dynamicity.

In his seminal paper Estlund argued that the legitimacy of democratic systems derives from its ability to provide better quality decisions while ensuring procedural fairness among participants (Estlund, 1997). He used the word epistemic value to talk about the likely tendency of a decision process to yield good quality decisions.

The second value of binding decisions, requires that decisions taken during deliberation have to be binding on the deliberators for a certain agreed period of time (Gutmann et al., 2009). This is to ensure that deliberations are not indefinite and that citizens have to stop discussing at some point in time and proceed to making decisions.

Lastly, dynamicity refers to the idea that deliberative decisions are constantly evolving. One way to think about is to view all decisions as provisional and capable of being revised at a future time based on new evidence or reasoning (Gutmann et al., 2009). Our remaining discussion will focus on these deliberative values (Figure 1).

2.2. Current Approaches to Deliberation Design

In this section, we look at various systems that cater to the aforementioned values of deliberative democracy. Some of the systems are not exclusively or purely deliberative in their purpose, but nonetheless contain features that that facilitate deliberative functions.
2.2.1. E-democracy

An interest in e-democracy emerged in early to mid-1990s, as Internet access began to take off in much of the developed democratic world (Macintosh, 2004). E-democracy systems seek to deepen provide asynchronous communication channels and open spaces for citizens to engage in policy deliberation.

Such initiatives fall into three types: information, consultation and participation (Macintosh, 2004). Information initiatives typically consist of a "one-way relationship in which the government produces and delivers information to the citizens" (Macintosh, 2004). This could involve email alerts for new policy issues, translation support for ethnic languages, online publication of annual reports, etc. These services fulfil the accessibility criterion of deliberative democracy. Consultation is characterised by a two-way relationship in which citizens can also provide feedback to the government. Typical consultation services include online surveys, discussion forums, evidence management systems, etc. Online surveys can be seen as helping to realize the deliberative value of impartial accessibility by ensuring equal voice for the citizens. Consultation is characterised by a two-way relationship in which citizens can also provide feedback to the government. Typical consultation services include online surveys, discussion forums, evidence management systems, etc. Online surveys can be seen as helping to realize the deliberative value of impartial accessibility by ensuring equal voice for the citizens. The third category, namely, participation, refers to the highest level of citizen engagement, where the government actively engages with citizens in defining the process and content of policy making (Macintosh, 2004). Here, citizens enjoy greater standing in being able to set the agenda and are seen as pivotal to the decision making process. Online systems like e-petition and e-referenda are perhaps the most popular examples of participation. Such initiatives also include the feature of e-voting, which allows citizens to cast their preferences for different policies through an electronic ballot. This service can be seen facilitate output legitimacy by helping form binding decisions.

2.2.2. Argumentation Systems

Argumentation (reason-giving) is crucial aspect of deliberation and recently there has been an increased interest in using argumentation support systems in deliberative contexts. As a result the field of "computer supported collaborative argumentation" or CSCA has emerged in the past decade. These research focuses on the pedagogy of argumentation. This refers to teaching users how to create, edit, interpret and review arguments (Scheuer, 2010). CSCA carries out 2 major functions: representing arguments and designing interactions. Argument representation is a crucial aspect of communication between deliberators. The other key affordance of CSC, interaction, refers to the framework available for users to interact with both argument representations and other users. The design also puts a constraint on the level of control or freedom users have over the content of their arguments. The calibrated interactions can mean prompting users using background materials (e.g., a collection of unresolved issues) or giving tools that help with extracting the essence of the arguments like with Belvedere (de los Angeles Constantino-Gonzalez et al, 2003). Belvedere provides basic knowledge units and allows users to formulate the relationship between these units (de los Angeles Constantino et al., 2003; Scheuer, 2010).

Another type of argumentation system (similar to CSCA) called computer supported collaboration scripts (CSCS) was developed primarily as a collaborative learning tool. It has found application in argument facilitation and knowledge construction within group deliberation settings (Stegmann, Weinberger, & Fischer, 2007). Scripts refer to instructional plans that specify and sequence learning activities for a user. They help foster learning by shaping the way learners interact with each other. CSCS can help in coordinating the learning process by prompting users to take note of where their
peers are in the script sequence and initiate appropriate learning specific activities (Kobbe, Weinberger, Dillenbourg, Harrer, Hämäläinen, Häkkinen, & Fischer, 2007). A variant of CSCS called argumentative computer supported collaborative scripts (ACSCS) uses argumentation sequences consisting of arguments, counterarguments and integration. ACSCS use assistive tools like prompts and hints to help achieve extended deliberation (Stegmann et al., 2007). ACSCS have been shown to enhance the quality of arguments and facilitate individual acquisition of knowledge (Stegmann et al., 2007). This feature of formalizing arguments is a very crucial feature and is directly aligned with the deliberative criteria of accessibility and reason-giving (Gutmann et al., 2009). As argumentation systems become bigger in scale, the amount of information in an representation/visualization can become overwhelming and lead to a breakdown of discussions. CSCA and CSCS platforms generate poorly-organized contributions with a high rate of redundancy (Klein, 2012). One promising system that has tried to address this issue is the MIT Deliberatorium (Klein, 2012). By using deliberation maps, the system takes care of redundancies (only one unique entry for a unique argument) and tries to get each argument placed next to those that are most logical to be connected to.

2.2.3. Deliberative Mini-publics

E-democracy platforms and argumentation systems represent attempts to harness the power of large groups of people. But by the early 1980s, deliberative theorists had started reviewing the effectiveness of such large-scale decision making methods like public polls (Fishkin, 1991). Large scale deliberation can quickly break down into non-representative speech making (Fishkin, 1991). To address these limitations, theorists started looking into mini-publics as they were more suited for reflexive engagement. A good example of online mini-publics is the Deliberative Polling project called project PICOLA, modeled on Fishkin’s deliberative polls (Fishkin, 1991). It delivers a multimedia environment designed for online structured dialogue. It consists of an education phase where participants can learn about the issue in a online reading room, a discussion phase where participants synchronously discuss the issue at hand and prepare questions for a panel of experts and a reflection phase where the participants continue the discussion in an asynchronous manner through forums or may choose to take a survey on the topic (Cavalier et al., 2009).

All the platforms discussed so far have their merits. E-democracy platforms make the policy-making process more accessible to ordinary citizens. Argumentation systems not only focus on the epistemic value of generating better arguments, but also facilitate normative goals like reasonable discourse through its moderator support systems. Deliberative mini-publics cater to epistemic value, by showing that smaller online communities can be used to generate good quality representative decisions. However, these approaches are lopsided in their adoption of deliberative value. E-democracy platforms, while useful for government-citizen communication, are not explicitly designed for deliberation among citizens themselves. It is severely limited in its ability to increase output legitimacy. Argumentation systems are yet to be seen to serve the particular purpose of policy deliberation. To summarize, none of the above-mentioned approaches is able to satisfactorily cater to 5 salient deliberative values. We therefore set out to present a comprehensive set of design interventions that can address all deliberative criteria to a satisfactory extent. In order to achieve this, it is very important to clearly operationalize the deliberative criteria in terms of design recommendations.
3. Design Recommendations

In this section we present our design recommendations based on insights from the fields of social psychology, political psychology, media psychology and democratic theory. The following discussion is split into 5 sections corresponding to the 5 key deliberative values (Figure 1). Each section will explicate key challenges in the design for the associated value and will introduce design recommendations aimed at addressing them.

3.1. Designing for Impartial Accessibility

3.1.1. Preparation of Deliberators

Impartial accessibility needs to be guaranteed before, during and after the deliberation process. To make sure that all citizens are given equal opportunities to get involved in the deliberation process, we propose to use National Random Sampling instead of self-selection that many e-Democracy or argumentation systems have used to generate our participants. In other words, a random sample of the national population is made to make sure that regardless of demographic varieties, people from all walks of life will be given the opportunity to start deliberation with other citizens. Although this particular design feature is not highly technological, it does provide an impartial starting point for later technological interventions to be meaningful.

Another key phase where accessibility is crucial is at the beginning of the deliberation session when the participants are given the opportunity to learn about the policy issue and the norms of a deliberation process. This briefing session should be designed so that there is consistent learning among all participants. This may be achieved by making the briefing process a self-paced interactive learning experience.

Table 1: Shows deliberative values, their associated challenges and the proposed set of design approaches

<table>
<thead>
<tr>
<th>Deliberative Value</th>
<th>Challenges in Design</th>
<th>Design approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impartial Accessibility</td>
<td>Preparation of Deliberators</td>
<td>Random National Sampling; Self-paced Learning</td>
</tr>
<tr>
<td></td>
<td>De-cluttering Arguments</td>
<td>Enforced Coherence</td>
</tr>
<tr>
<td>Reasonable Discourse</td>
<td>Dealing with Escalations</td>
<td>Goal-based Belief Representation</td>
</tr>
<tr>
<td></td>
<td>Unraveling Reciprocity</td>
<td>Bricolage</td>
</tr>
<tr>
<td>Epistemic Value</td>
<td>Interactive Reasoning</td>
<td>Dissimilarity-based Random Selection</td>
</tr>
<tr>
<td></td>
<td>Practical Reasoning</td>
<td>Viability based Attention Mediation</td>
</tr>
<tr>
<td>Binding decision</td>
<td>Making Robust Decisions</td>
<td>Meta-consensus-based Aggregation</td>
</tr>
<tr>
<td></td>
<td>Fighting Opportunism</td>
<td>Salient Group Identity</td>
</tr>
<tr>
<td>Dynamicity</td>
<td>Defining Provisionality</td>
<td>Dynamic Documentation</td>
</tr>
<tr>
<td></td>
<td>Quality of Dynamicity</td>
<td>Accommodative Restructuring</td>
</tr>
</tbody>
</table>

Recent research on self-paced learning platforms like Khan Academy suggested that self-paced learning instills confidence in learners to work independently and enables them to assert more control and ownership over the direction of their learning (Thompson, 2011). We recommend an
approach called *Self-paced Learning* to help the individuals personalize their learning experience. This approach can be deployed for both learning about the "issue" being deliberated on and learning about the functioning of any interface tool used for deliberation. This is crucial because equal participation is harder to achieve without a reasonable equality in the deliberator's skill levels at operating the interface. To incentivize the learning process, we include a feature based on reputation points. The use of social-currency based incentives, such as reputation points, may lead to an online hierarchy that impedes equal participation we are hoping for (Rosenberg, 2005). To avoid this, we recommend that details about each participant's status to be kept private and available only to the said participant through the individual interface. The participant will be able to assess if their own performance is in keeping with that of other but will not be able to directly know the reputation points of someone they are deliberating with. We call this revised mechanism *self-reputation points*. Last but not least, impartial accessibility to the decision making phase needs to be operated meaning that all crucial information (except internally generated data) pertaining to a deliberative session, have to be made equally accessible to all participating deliberators.

### 3.1.2. De-cluttering Arguments

One of the problems with online deliberation is the clutter it generates when large groups engage in argumentation. It is typical for these deliberation spaces to have duplicate entries of the same argument. Another problem is that of argumentation becomes unsystematic over time and leads to a messy collection of ideas that is hard to understand. Since comprehensibility is a requisite to *impartial accessibility*, it is important that we tackle this issue. In order to address this we recommend an approach called *Enforced Coherence* consisting of two components: *reducing duplication & conscious structuring*.

1. Reducing duplication- This refers to a mechanism that limits the number of possible duplications of the argument. One way to do this is to moderate the argument making process through a filtering process which checks for duplications. An example of such a system is the MIT Deliberatorium (Klein, 2012).

2. Conscious structuring- This component tries to constraint the type of argumentation that is possible in a deliberation session. We base this feature on the observation that in a deliberative setting, arguments are usually made with the intent to influence policy making. We therefore recommend that the furnishing of arguments be restricted to only those spaces (forums, chat rooms etc) where it is relevant to policy making. One way to think about it is that the mode of entering an argument is required to choose the policy first before argumentation. For example, to make the argument that "green houses gases cause rise in atmospheric temperature", the deliberator will have to access, a policy like "Reduce CO2 emissions" to be able to do so.

The *Enforced Coherence* approach seeks to force deliberators to avoid duplication and argue in a manner that is mindful of the context (the policy) in which the argumentation is taking place. In summary we recommend 3 approaches. *National Random Sampling, Self-Paced Learning & Enforced Coherence* to help address the challenges involved with *impartial accessibility*(see Table 1).
3.2. Designing for Reasonable Discourse

3.2.1. Dealing with Escalations

Reasonable discourse requires deliberators to be conscientious and comprehensive in how they engage with the arguments of other deliberators. Sometimes argumentation can lead to talk-overhead where the deliberators continue to have a argumentation without any improvement in their understanding of the opponents views. This can be attributed to cognitive dissonance-- studies on group decision making have shown that people have an inner need to harmonize their beliefs and they strive to avoid inconsistencies (Festinger, 1957; Matz, & Wood, 2005). This dissonance can further be explained by the issue of belief selection (Boella, da Costa, Pigozzi, & Tettamanzi, 2010). More precisely, an individual's selection of beliefs from a set of alternatives depends on the inherent goals connected to the individual(Boella et al, 2010). For instance, if a person holds beliefs B1 and B2 that are equiprobable and has connected goals G1 and G2 (G1 preferred to G2), then whichever belief that facilitates G1 the best is more likely to be selected. This finding also means that in a deliberative setting, overt expression about one's goals can help reduce the amount of ambiguity or dissonance in the discourse. To illustrate the point, consider a debate between a creationist and an evolutionist on the question of "teaching creationism is schools". Most of these discussions typically result in lot of "cross-talk" and vitriol. The dissonance here may be a result of mismatching goals. That is to say that the two beliefs (one from each deliberator) are incompatible because of the fact that the individuals don't share the same set of goals (or not with the same priority). It may be possible to reduce the level of dissonance by divulging more about their motives and desires in relation to their disagreement. A creationist's motive might be to "restore the moral authority of the Bible" and may find the theory of evolution as a threat to this goal. An evolutionist may have the goal-- "retain scientific theories with good explanatory power" and may reject creationism for this reason. So on the issue of teaching creationism in schools, the dissonance between the two deliberators may be resolved, to some extent, by being explicit about their goals and desires. Building on this idea, we recommend that the argumentation discourse should be supported through a mechanism which allows deliberators to represent their goals concurrently with their arguments. We call this Goal-based Belief Representation System (GBRS). As an example, this mechanism take the form of argumentation scripts like "sentence openers" to illicit specific types of argumentation in response to dissonance. For example, sentence openers like "In order to..." or "In furtherance of..." can help deliberators convey their goals concurrently with their arguments.

3.2.2. Unraveling Reciprocity

The value of reasonable discourse requires that deliberators seek agreement through the use of principles and arguments that can be justified to other fellow deliberators. Deliberative theorists call this feature "the principle of reciprocity". However, this principle does not say what would constitute a principle or argument that others would find agreeable. In other words, the deliberators are expected to find these principles (barring few exceptions) mostly through trial and error. We recommend a design approach called Bricolage that can help deliberators in this trial and error process. The approach consists of 2 components- deontic reason support & theory-of-mind facilitation.

1. Deontic reason support-. The trial and error or reciprocity is guided by the 5 deliberative values, but there will be points of departure, where deliberators will need to reason with each other on
what constitutes permissible actions or arguments. This type of reasoning on whether actions are forbidden or allowed, obligatory or non-obligatory etc, is called deontic reasoning. This component will seek to provide support for deontic reasoning by using a database of deontic considerations and combination rules. To illustrate how this can happen, consider 2 deliberators A and B. Person A is contesting a claim that B believes in. Person B believes in the claim because of what B read in the newspapers. Person A would like to convince B that this type of evidence is inadmissible. To do so, Person A can try to use a combination of deontic considerations like "don't use anecdotal evidence" and "don't use non-peer reviewed research material", to argue that this is inadmissible. Likewise, person B can use other deontic considerations like "don't expect unreasonable degree of effort from an opponent" to argue that, person A should not expect B to provide better quality evidence when it is harder to find. This scenario is particularly plausible, if the claim involved is not a well studied phenomenon.

2. Theory-of-mind facilitation: This component helps deliberators form a mental picture of what the other deliberator is likely to object to. We recommend the use of "personas" or "short blurb" that a deliberator can use to describe likes and dislikes with respect to a particular topic or mode of argumentation. For instance, an individual may describe themselves as a "climate change activist". This would help other deliberators in deciding what they can expect from the other person at the time of argumentation.

The Bricolage approach will seek to help deliberators argue with greater reciprocity and mutual respect. To summarize, in this sub-section, we have introduced two approaches GBRS and Bricolage to facilitate the value of reasonable discourse.

3.3. Designing for Epistemic Value

3.3.1. Interactive Reasoning

Although current deliberative platforms cater to substantive ideals of deliberation like equal representation and belief coherence, there is very little, by way of design features, for ensuring epistemic standard in deliberation outputs. One possible reason for this is that the epistemic value of a conclusion is harder to evaluate with certainty in comparison to normative values (Gutmann et al., 2009; Mercier et al.,2012). Another reason could be that people may always disagree with each other for rational reasons, especially on issues of religious, philosophical and moral nature--often referred to as "the burden of judgments" (Rawls, 2001).

Traditionally, the role of reasoning has been thought of as helping the formation of "true" beliefs about the world. But the near ubiquitous prevalence of fallacies and biases of reasoning have led researchers to question the true function of reasoning in human cognition and decision making (Mercier, & Landemore, 2012). Of particular relevance is the role of confirmation bias, which is perhaps one of the most well-established and robust cognitive biases((Mercier et al.,2012; Nickerson, 1998). Confirmation biases, according to this view, are not an anomaly of reasoning but the very essence of it. The a new approach called the argumentative theory of reasoning posits the role of reasoning a tool to facilitate and coordinate social interactions (Mercier et al., 2012). More precisely, the proposed function of reasoning is to produce improvements in our thinking by helping us find and evaluate arguments within a deliberative context (Mercier, & Sperber, 2011; Mercier et al.,2012). Reasoning is not just an "individualistic" exercise, but the outcome of the social process of argumentation and refutation. The individual reasoner is conservative with respect to his/her own beliefs and involves in defending their beliefs arguing for its their plausibility and
rebutting other beliefs by decreasing their plausibility. The argumentative theory of reasoning does not claim that reasoning in its biased form is epistemically better, but merely that individual reasoning is by nature "biased" and that any attempts to improve it has to include an interactive element (Mercier et al., 2011).

To facilitate this type of interactive reasoning we recommend that groups of individuals participating in deliberation be selected based on the extent of dissimilarity between them. We call this approach *Dissimilarity-based Sample Selection (DBSS)*. It consists of 2 key steps:-

1. **Policy Preference Ranking**- The participants in a deliberation session are asked to rank their preferences from a standard list of policy alternatives for a given issue. This list of will be reasonably comprehensive and diverse.

2. **Proximity-based group selection** - The preference ranking is used to calculate the dissimilarity between individuals. A popular metric is called *proximity measure*, which evaluates the level of agreement between an individual's ranked preference and that of a entire pool of deliberators in the session (Herrera-Viedma, Herrera, & Chiclana, 2002). The measure has an inverse relationship with dissimilarity. More the proximity lesser the dissimilarity. The big pool of deliberators is then split into groups that are more appropriately sized, all the while ensuring that the proximity measure of each individual with respect to their assigned group attains its least value (maximum dissimilarity).

This approach is to be deployed at the beginning stages of a deliberative session, so as to maximize the quality of interactive reasoning.

### 3.3.2. Practical Reasoning

An important limitation of current platforms is that they typically assume deliberation to mean theoretical reasoning (i.e., reasoning about ends). This view excludes other forms of reasoning like practical reasoning (i.e., reasoning about means). While theoretical reason is concerned the setting of goals that are accessible and justifiable to everyone, practical reason, deals with the organization and deployment of means to achieve these goals. It is more about strategy building and facilitating "implementable" plans. But, sometimes, goals are a priori justifiable, like the goals set by planning or research organizations. A goal like "find a cure for cancers by the end of the decade" may ultimately be hard to realize, but the challenge here is not to reduce our expectations but to develop alternative strategies that can make it easier to achieve the goal. This requires a combination of practical reasoning and ideation. In order to incorporate this type of practical reasoning into deliberation, we propose a 4-component approach to collaborative strategy building called *Viability-based Attention Mediation* or VAM. This approach consists of four basic components - 1) framing, 2) viability assignment and 3) influencer generation. 4) Attention Mediation:

1. **Framing**- This refers to the process through which a problem scenario is converted into a goal. For instance, imagine a community facing acute water shortage in their locale. Different stakeholders of the problem may view the problems in different ways- some may view it as a water supply issue stemming from reduced rainfall and others may view it as a mismanagement issue stemming from the incompetence of local government officials. The resulting goals can be distinctly different, e.g. "find alternate water source" and "fire incompetent officials".

2. **Viability Assignment**- Each such goal will be associated with a unique *viability* score that decreases with increased difficulty of achieving that goal. Using the example above, a goal like
"fire incompetent officials" may have a viability assignment higher than the goal "find alternative water source", since it seems more achievable. Seen from a collaboration perspective, viability assignment can be thought of as score established through the aggregation of individual scores from each deliberator. It is important to note that the viability assignment of a particular goal is dependent on the particular strategy associated with a goal. A better strategy can change the perceived viability of a goal. In this connection, the next component has a vital role to play.

3. Influencer Generation: Influencer refers to a specific type of subset of the context within which any problem exists. The context for the "water shortage problem" can include elements like: the location of the community, their demographic spread, their average disposable income, awareness in the community etc. The influencer refers to those elements of the context that when modified can "influence" the viability of the associated goal. For instance, the context element "average disposable income" is an influencer because it can increase the viability of the goal "find alternate water source" (it will be possible to privately procure water with more disposable income). On the other hand, the context element "demographic spread" may not be very relevant to either of the two goals. Hence, it may not qualify as an "influencer". The component of Influencer generation refers to a process of generating context elements for a certain goal that can function as influencers for that goal. The VAM approach, consists of running the 3 components of framing, viability assignment & influencer generation in sequence and iterating this process in a nested or recursive manner. The recursive property requires that the input and output of the sequence be matched. We like to note that, influencers are semantically similar to problem scenarios (what see framing) in their syntactic and semantic make up. Each goal generated from framing can be thought of as populating a nested decision tree.

4. Attention Mediation: This component facilitates the "collaborative" aspect of VAM. To collaboratively build an implementable strategy, it is crucial to be able to divert the deliberator's attention to those goals that are low on viability. This way the component helps multiple individuals to strategize together.

In summary, two approaches namely, DBSS and VAM are recommended to increase the epistemic value of the deliberative process.

3.4. Designing for Binding Decisions

3.4.1. Making Robust Decisions

In deliberative theory, decision making is understood in multiple ways. While aggregation tools like voting are popular, it is a less inclusive decision-making mechanism and brings into question the legitimacy of binding decisions. Calling for a vote at the end of a deliberation session is also seen as an abrupt transition from deliberative practices like that creates discontinuity to the deliberation session (de los Angeles Constantino-Gonzalez, Suthers, & de los Santos, 2003). Gutmann & Thompson have argued that the focus of deliberation should not be to implement consensus but to allow people to discover common ground while disagreeing respectfully with others (Gutmann et al., 2009). Even though current offline deliberation systems like Fishkin's deliberative polls and consensus conferences have shown promising results, they do not cater to consensus-building explicitly (Fishkin, 1991). Part of the reason might be that from a proceduralist perspective, consensus is not always the goal or outcome of deliberation (Gutmann et al., 2009; Zhang & Chang, 2014). Some deliberative theorists instead choose to focus on other outcomes like preference transformations (Fishkin, Rosell, Shepherd, & Amsler, 2004). Consensus as defined by
current deliberation platforms typically means unanimous agreement which is hard to achieve. Moreover, deliberative theorists have demonstrated that decision rules can never be completely based on consensus. A consensus process requires that we grant the right of consent (in other words the power to veto) to every participating member. However, in a political context the decision making process is expected to be robust- must result in some outcome (Rae, 1975). A consensus-based system cannot be robust if we consider its wider political context. Some recent work has offered an alternative concept to pure consensus called meta-consensus. Meta-consensus seeks to generate agreement about the nature of the issue at hand. An agreement on outcome is unnecessary (de los Angeles Constantino et al., 2003). Meta-consensus can happen at the level of values, beliefs or expressed goals. This ensures that when individuals agree/disagree on a decision, they also agree/disagree on the reasons behind it.

Even though meta-consensus may help us avoid the challenge of getting full consent, it is still not entirely robust (Rae, 1975), because it is important that a collective political decision scales down to the level of an implementable decision. This implies that aggregation mechanisms are still required to end the deliberation session. By combining meta-consensus with aggregation methods we can achieve a decision process that is more epistemically valid. We call this approach Meta-consensus-based Aggregation (MCBA).

### 3.4.2. Fighting Opportunism

Another obstacle to binding decisions is the contradictory roles of dissent and consensus. The switch from dissent to consensus can be wrought with confusion and anxiety. One such anxiety is the fear that fellow deliberators may behave opportunistically and hijack the decision process for their own personal benefits. It has been shown that this can interfere with the communication and information processing with a deliberating group (Dooley, & Fryxell, 1999). One way to tackle this problem is to build loyalty among deliberators. Loyalty facilitates a constructive processing of dissenting opinions by promoting open communication and sharing of information (Dooley et al., 1999). Increased loyalty can help dampen these anxieties and facilitate the formation of binding decisions. One of the factors that can increase loyalty is "group identity" (Van Vugt, & Hart, 2004). When people identify with a group, their welfare becomes increasingly intertwined with the welfare of the group. Two key factors that encourage the formation of group identities are visual anonymity and "collectivized" environments (Van Vugt et al., 2004). Visual anonymity implies that visual cues like a profile picture that are likely to give away the identity of a person are kept hidden. Collectivized environments refer to the look and feel of the spaces where the groups carry out their tasks. Collectivization is this sense is akin to "personalization", except that the salient identity being projected is at the level of the group and not the individual. We recommend an approach that we call Salient Group Identity (SGS) which can increase the likelihood of binding decisions by using the features like visual anonymity and collectivized environments.

In summary, two approaches, namely, MCBA and SGS, are recommended to better facilitate binding decisions among deliberators.
3.5. Designing for Dynamicity

3.5.1. Defining Provisionality

Dynamicity of a deliberative decision refers to its tentative quality. Most deliberative platforms tend to overlook this concept or treat it as a mere "philosophical stance of doubt" one retains about the outcome of deliberation. We operationalize this concept to mean that deliberative outcomes are amenable to re-examination. This amenability is similar in spirit to the "principle of parsimony" from the philosophy of science. In the case of scientific experiments, the documentation of the details like demographic spread of participants or the theoretical framework used to interpret the data are crucial. Without this information, it would be harder for any reader or reviewer to re-examine the validity of its conclusions. In a similar vein, we argue that deliberative decisions become more amenable to re-examination when there is sufficient documentation of the assumptions and pragmatic decisions that go into decision making process. We call this approach Dynamic Documentation.

3.5.2. Quality of Dynamicity

The value of dynamicity can be seen as opposed to that of binding decisions in some ways. The former is about re-examining decisions while the latter is about committing to it. If a large number of decisions are re-examined simultaneously, the deliberative process may get chaotic and lose direction. It is therefore imperative that deliberators choose to limit their disagreements by what Guttmann calls "the principle of economy of moral disagreement" (Gutmann et al., 2009). This principle states that citizens should try to minimize their disagreement with their opponents so that they can continue to work together and find common ground. Another way to think about common ground is through the lens of conflict resolution. Work done on cooperative design systems has shed some light on types of conflicts, namely, domain-level conflict and control level conflict that are relevant to our discussion (Klein, 1991). For our purposes, domain-level conflict refers to disagreements regarding the form or content of the arguments, whereas control-level conflicts are concerned with conflicting recommendations about the direction a deliberative process should take to address the issue. We can see that, the "common ground" is more directly linked to control-level conflicts than domain-level conflicts; the former requires a strategy to move forward whereas the latter requires consensus or agreement to move forward. We recommend a control-level conflict resolution approach called Accommodative Restructuring that has following components- Argument orientation & conflict support. Argument orientation allows deliberators to indicate their preference on how to proceed with an argument, based on a list of choices. For example, deliberators might choose to "pursue an argument at a later time" or chose to "take it up immediately". This component facilitates the expression of control-level recommendation among deliberators. The second component, conflict support, refers to a database of suggested strategies that the deliberator can use to diffuse their disagreement. For example, consider two people A and B deliberating on climate change. Person A disagrees with B on whether climate change is man-made, the former being of the opinion that it isn't. The conflict support component can help when deliberation reaches an impasse and becomes unmanageable. The component consists of a database of control-level strategy templates that the deliberators can use to create their own conflict resolution strategies. Using the above example, Person A may use a template strategy like "re-order argument priority", to suggest to Person B that they temporarily stop a particular
argument and give more priority to other aspects the issue. Thus this approach can be used to restructure the direction and nature of deliberation so that disagreements remain manageable.

In summary, in this subsection we recommend the approaches of Dynamic Documentation and Accommodative Restructuring to better cater to the deliberative value of dynamicity.

4. Conclusion

In conclusion, we have presented a 11-part value-based design approach (see Table 1) which we believe will help in enhancing the legitimacy of online deliberation. Since the paper only gives a meta-level description of design recommendation, we hope that it will be useful in instigating further research and discussion especially with regards to implementing these approaches. While we have tried to mindful in the crafting of our theory-driven approach to design, the challenges we raise are by no means exhaustive and this domain is certainly fertile for more design ideas. We hope that both HCI scholars and deliberation practitioners will find our analysis useful as a guide towards their research on effective designs for online deliberation.

References


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Can Microblog based Political Discussion contribute to Public Deliberation in China?

A case study of deputies' microblogging interaction with the public during the 2013 National People’s Congress.

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Abstract: Authoritarian country though it is, various deliberative practices have been deployed by the state in China to promote a sense of the legitimacy of the party's rule. Over the last decade, these deliberative processes have been expanded to include the Internet, as part of a fast growing e-governance project. More recently, driven by the popularity and influence of microblogs, the state has taken measures to harness the microblog-sphere as a new deliberative space. This study attempts to explore the democratic aspirations of microblog based political discussion by exploring the deliberative quality of the public’s participation. Both Chinese netizens’ capacity to deliberate and their opportunity and willingness to express dissenting views on microblogs are assessed, and the results demonstrate that China’s microblog-based political discussion has already achieved most of the features characteristic of deliberative engagement. This analysis provides important insights relating to the democratic quality of microblog based deliberation, and breaks new ground in measuring deliberation quality in the Chinese context.

Keywords: Online deliberation, social media, China

Although China remains at the macro level an authoritarian state; at the micro level various deliberative practices have recently been introduced. With regard to the nature and degree of the impact of deliberative practices in China, there are two schools of thought. Some believe that it can lead China to democracy, as a taste for deliberation and for informed engagement with the political process is developed: an important precondition for the ultimate realization of deliberative democracy. Others hold the more skeptical view that deliberation is being employed as a stalling or diversionary tactic intended to placate indignation without ceding much in the way of real power. In this case, Chinese deliberation is seen as a mechanism to promote a cosmetic sense of the legitimacy of the regime both at home and internationally.

Though opinions on the impact of the Chinese government’s introducing of democratic practices are divided, there is interest and value in asking whether new Information and Communication Technologies (ICTs) significantly redefine the dynamics of China’s domestic political communication. With the wide and widening implementation of e-government projects in China, there is scope for more diffuse institutional deliberation. And with more than 170,000 registered government Weibo accounts, including those registered by government bodies and individual officials (CAG, 2013), the microblogging platform Weibo is emerging as the largest deliberative
space in Chinese politics. Even though the state styles this practice as ‘Weibo deliberation’ (weibo yizheng, 微博议政) (Hua, 2012), it might be precipitate to conclude that this has really become the properly deliberative forum it is presented as being. Only when democratic features are achieved can discussion be appropriately styled as deliberation.

This study examines whether the discussions had on Weibo now show evidence of these democratic features or should be better understood as a pseudo-deliberative online talking-shop. This research asks questions on if Chinese public have the capacity to deliberate, and if they have the opportunity to challenge the authority power on Weibo. Presented here is a case study of political discussions between the public and representatives of China’s National Congress during the 2013 Two Conferences - Lianghui 两会 - the annual meetings of the National People's Congress (NPC) and the National People’s Political Consultative Conference (NPPCC) in Beijing and the most important and most closely followed political event in the country. To assess the quality of the engagement, this study critically adapts the Discourse Quality Index (DQI), one of the best established and most widely used metrics for measuring deliberative practice (Steiner, 2006).

1. Background - ‘Deliberative democracy’ in China

As the executive authority in a single-party state, the Chinese Communist Party (CCP) is faced with serious issues regarding its legitimacy to rule, these being voiced both abroad and (increasingly) at home. The deployment of deliberative practices can confer a sense of legitimacy and thereby buttress against criticism. This partially explains why the last decade has witnessed the fast development of consultative and deliberative institutions in China. The public has been invited to express its views on such local issues as the prices of water and electricity, party entry fees, and the development of historical sites (Li, 2008).

Some of China’s state-driven deliberative projects have even received the direct involvement of leading Western experts in deliberative democracy. In 2004, some of the West’s most committed deliberative democrats were invited to attend and address the CCP’s Conference of Deliberative Democracy in Hangzhou to discuss China’s democratization (He, 2008). Beginning in 2006, Fishkin (2010) and his colleagues were twice invited to apply their deliberative polling systems in China. Reviewing the experience of discussing with the Party how China can be democratized, Leib (2004: 73) states: “…the purpose of the conference was far from purely theoretical or merely symbolic of Chinese openness to new ideas for democratization of the one-party state. On the contrary, we were talking about designing deliberative democratic institutions in a country that was seeming more open to institutional innovation than many Western democracies that are set in their ways.”

While Leib’s comments offer encouragement, there may also be a degree of ethnocentric bias lurking in his surprise at China’s use of deliberative processes. In considering the democratization of China, scholars too often examine this question by asking how Western liberal democracy can be introduced in the context (e.g. Chang, 2012; Ferdinand, 2000). However, this perspective also risks failing to recognize that China might already be pursuing a distinctly Chinese notion of democracy. In the case of ICT’s impacts on politics in China, ethnocentric bias prompts questions such as ‘can the Internet bring democracy to China?’ But China does not need the Internet to facilitate the importing of Western democracy, as there is an ongoing development of democracy in the country (He, 2009; Li, 2008). It would be more meaningful to look at how new ICT can be co-opted as a tool in the country’s already existing political progress. For this reason, this study will focus on how microblogging bolsters the wider deliberative culture in China.
2. Literature Review

2.1. Deliberation in China

Theories of discursive participation and public deliberation have been developed inside the framework of Western democracies. Can this ‘democratic’ tool also be employed in assessing authoritarian settings? As introduced above, although China is authoritarian in nature, the party plays an essential role in sanctioning and even promoting deliberative institutions and practices. He (2006) coined the term “authoritarian deliberation” to recognize the contours of public discourse in China. The process is “authoritarian” in so far as the party-state prescribes the boundaries of political discourse, but that discourse is “deliberative” in the sense that local people employ argumentation and reasoning to discuss collective problems. In these discussions, evidence is presented, and solutions are proposed and justified. He also reasons that “democracy” involves the empowered inclusion of individuals in matters that affect them by means of votes, voice and related rights, while “deliberation” need only be a mode of communication in which participants in a political process offer and respond to the substance of claims, reasons, and perspectives in ways that generate persuasion-based influence (Ibid.).

If He’s (2006) study secures that deliberation is theoretically possible in China, then Fishkin (2007) and his colleagues’ implementation of Deliberative Polling on the ground demonstrates that authoritarian deliberation can be realized in this context. In 2005, Fishkin and other scholars from Stanford’s Deliberative Democracy Center were engaged by the local government to conduct a deliberative polling project in Zeguo township, Wenling City, Zhejiang Province. This project allowed a scientifically selected sample of ordinary Chinese citizens to deliberate about which infrastructure projects would be funded in the coming year.

Although a small-scale undertaking, it was explicitly conceived as a test for implementation on a larger or even national scale. Findings from this study offer two major implications for the development of deliberative democracy in China. First, Fishkin’s experiment generated encouraging evidence of local citizens’ deliberative capacities. As he states: “The public is smart... it’s smart in China just like it’s smart in Britain or smart in Bulgaria” (Fishkin,2010: 23). Second, under favourable conditions, deliberation can be achieved in authoritarian circumstance. This gives reason to wonder whether China’s Internet, and more precisely microblogging, provides such conditions under which citizens can deliberate in a democratic fashion. In the following section light will be shed on the Internet’s role in China’s deliberative process.

2.2. China’s online deliberation

With the proliferation of new media in China, attempts have been made to find deliberative venues in the online space. Jiang (2010) identifies four major “deliberative spaces” on the Chinese Internet: government-regulated websites, government-regulated commercial platforms, NGO’s website, and websites hosted abroad. Exploring the Chinese state’s motivations for introducing online deliberation, MacKinnon (2011) theorizes the party’s attempt to embrace and adjust to the digital era as “networked authoritarianism”: a new model of networked authoritarianism in which digital ICTs are more likely to sustain than erode the hegemony of the CCP. The key innovation of networked authoritarianism is the coexistence of extensive digital communication channels, including limited space on websites and SNS to debate government policies and social issues, with systematic and technically sophisticated state surveillance and control. Consequently, the general
public is provided with the sense that they are capable of holding the party accountable and that their voice can be heard by the authorities (Brady, 2010; Stockmann, 2013). This falls into Pateman’s (1970) conception of ‘pseudo-participation’. Tokenistic democratic practice has jeopardizing effects since it saps civic energies and undermines political efficacy (Heller & Isaac, 2003). Rogers (2004) agrees that by controlling the structure and agenda of online political discussion, the authorities defuse participatory energies which could become a threat to their power.

However, despite the continuing surge of interest in China’s online deliberative practices, little has been done to assess the deliberative quality of these discursive participations in themselves. Even though two scholars (Min, 2010; Zhou et al., 2011) have tried to measure online deliberation in China, they failed to contextualize the metric appropriately for local circumstances. Jiang (2010) rightly suggests that although Chinese online public discussion shares challenges and potentialities seen online in democratic nations, the circumstances under which it operates must be understood as significantly different. However, in this study of online political participation, she adopts the coding framework developed by Trenel (2004), without adapting this to capture the particularity of the Chinese context. According to existing literature on China’s use of deliberative practices, they predominant characteristic of the deliberation circumstances in China is its relation to the authority. As mentioned above, it is often used as a mechanism to reach deference to the authority. For this reason, when applied measurement of deliberative quality in China, one should consider both public deliberative capacity – the core of democratic discursive participation – and the impacts of these deliberative process on authoritarian power. In the following section, this question will be discussed in detail.

2.3. Measuring quality of deliberation

To close the gap in the literature describing the deliberative quality of Chinese people’s discursive participations, this study requires an instrument of measures that can profitably be applied to the Chinese context. In this section, the literature on measuring the quality of deliberation will be explored.

As mentioned, in the West there is already rich literature on the Internet’s impact on deliberation, for all that findings are conflicting. Against this background of divergent opinion, attempts have been made to develop formal evaluation frameworks to provide objective measurement of the quality of public opinion (such as Trenel, 2004; Janssen, Kies, 2004; Steiner et al., 2004; Stromer-Galley, 2007; Black, Urkhalter, Gastil, 2010). These projects have pursued a generalizable means of evaluating based on relatively stable criteria in an attempt to improve the comparability of findings. Although different measurement instruments place emphasis on different dimensions, there are some criteria shared across all studies, these including equality, rationality, respect, and constructiveness (Sporndli, 2004; Trenel, 2004). This commonality provides warrant to claim these as the agreed key characteristics of deliberativeness, and all are covered in the DQI, the measurement instrument employed in this study. In the following, the normative theories on this instrument will be briefly introduced and the drawbacks of its being applied without modification to the authoritarian context of China will be stated and explained.

The Discourse Quality Index (DQI) is the most encompassing and most widely used measure of deliberation, having met with considerable support from deliberative theorists (Habermas 2005: 12; Thompson,2008: 507). This coding scheme has been deployed to assess the quality of liberation
of both parliamentary discussion and citizen deliberation in more than 10 countries (Index 2). The theoretical foundation of DQI is Habermas’s (1995, 1996) discourse ethics, which emphasizes individuals’ capacity to deliberate democratically. The deliberative capacities required by this index can be categorized into four groups. First, in accordance with Habermas’s and other theories, individual deliberators should be capable to express attitudes and needs equally and openly (Cohen, 1989, Habermas, 1996, Chambers, 1994). Second, participants should be capable of supporting their claims by reasons and these should be framed in terms of common interest (Habermas, 1996; Mill, 1998; Rawls, 1971). Third, individuals should show respect for other participants and their arguments (Chambers, 1999; Luskin & Fishkin, 2002). Constructiveness is the fourth dimension of deliberativeness covered in DQI, requiring that participants should be capable of achieving rationally motivated consensus (Cohen 1989).

3. Research questions

The overarching question of this study asks whether Weibo based political discussion can contribute to public deliberation in China. Although political discussion is becoming normalized on microblogs in China, this does not necessarily mean that these discussions have democratic aspirations. The democratic quality of public deliberation is determined by a variety of factors, but this study considers the question specifically from the perspective of Chinese netizens’ participation. From this standpoint, two questions are asked:

RQ1: Does the Chinese public have the deliberative capacity to discuss politics on microblogs?

To address this question, a modified Discourse Quality Index (DQI) is employed. In accordance with the DQI, there are five indicators of democratic deliberation: equality, levels of justification, content of justification, respect toward people, and respect toward argument. According to these variables, three sub questions are asked:

- RQ 1.1: Does the public deliberate equally on microblogs?
- RQ 1.2: Does the public deliberate with rational justification?
- RQ 1.3: Does the public deliberate respectfully?

RQ2: Do Chinese people have the opportunity to challenge state authority in the discursive process on microblogs?

The existing literature points out two major characteristics of institutional deliberation in the authoritarian Chinese context. First, when deliberating political issues, the Chinese public can be seen as unwilling to express disagreement, because the country’s institutionalized deliberation is largely used to achieve consensus and deference to authority. Second, institutional deliberation is restricted to an agenda set by the authority, as by doing so the state can avoid threats from deliberative practice. Because of these characteristics of China’s deliberative practices, when the discursive process is moved to the online context, it is expected to demonstrate not only a high level of public deliberative capacity (RQ1), but also the public’s awareness of both voicing divergent opinions on the issues raised and challenging the discussion agenda set by the authorities by raising new issues. This leads to two sub-questions, both of which are complementary to the DQI analysis:

- RQ2.1: Do the Chinese public make efforts to challenge the authorities’ power by expressing disagreement?
4. Methodology

To assess the political discussion on microblogs, the case-study of congress representatives’ microblogging during the 2013 Two Conferences session has been chosen. It is the most important and most closely followed political event in the country every year. During these two weeks, public attention is focused on the country’s politics, and activists and dissidents seek to capitalize on this. For this reason, there will be more tension and dynamism in the microblog sphere during this period (Stockmannn, 2012).

ZhengwuTong¹, a directory of government officials’ and agencies’ using microblogs, aggregates government microblogs from six major microblog service providers in China. In March 2013, this website set up a special webpage for Lianghui which tracked and listed 335 representatives’ Weibo feeds. From this list, the microblogging activities of 52 active users who made posts during the two meetings were chosen for analysis here. Given that this is a relatively small number, all of these 52 representatives’ posts from the 23rd of February to the 17th of March were downloaded for scrutiny. The two conferences last only two weeks from March 3rd to 17th, but the process of data collection was begun ten days in advance because this is the agenda-setting period during which deputies start to discuss political issues and prepare for the presentation of their proposals. There are in total 273 weibo posts (essentially ‘tweets’) that deputies wrote to discuss political issues with the public, and 10 of these, with the discussions each prompted, were randomly selected. For each of these discussions, 50 comments from netizens were sampled. Altogether then, the sample comprises 500 posts to be analyzed.

To facilitate a normative conception of the deliberative quality of discussion for this empirical research project, the Discourse Quality Index (DQI) was employed to measure the Chinese public’s deliberative capacity, the key element of this study. The DQI has not previously been applied to the analyzing of deliberation in China. The key rationale behind quantifying the quality of deliberation is to allow for the comparing results between China and Western states, and to compare results between different discussion topics and different individual’s behaviors. Also, the DQI is a flexible measuring framework, which can and should be modified to fit different deliberative contexts (Steiner, 2006). The major change made to the DQI here is the removal of the constructiveness indicator. The reason for removing constructiveness is simple, as this is not an important dimension in the nascent online deliberation context in China. On the contrary, there will be discernible progress in this arena when monotonic unilateralism is replaced by diversity in opinions. At the same time two more dimensions - disagreement and agenda-shifting have - been added to complement this DQI-based study. In addition to the important and useful quantifying nature of the DQI, a qualitative analysis is also an important part of this research. Quantitative findings enable a comparison with other countries where DQI studies have been conducted, while qualitative findings help to acknowledge the deeper meaning of people’s arguments in appropriately contextualized fashion. A qualitative thematic analysis is also adopted to explore and identify what people discuss, categorizing textual data with reference to themes and concepts. In this study, all sample posts are categorized into different groups regarding the issues covered.

¹ http://zhengwutong.com
5. Findings and Discussion

5.1. Deliberative capacity

In this section, findings from the (modified) DQI study will be presented and discussed. The DQI used in this study takes up the central conceptual criteria that define deliberation. There are five dimensions of deliberation covered by this index: equality, level of justification, content of justification, respect toward content, and respect toward people (table 1). This study analyses all of those aspects, but due to the lack of space this section will focus on the discussion on justification and respect.

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<th>Table 1. Summary of findings</th>
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5.1.1. Justification - RQ 1.2

Level of justification

A high level of rationality in justification is considered an essential criterion for high-level democratic deliberation (Deli Carping el al., 2003; Sporndli, 2003). Given that an idealized speech circumstance itself does not have content, external standards of what constitutes a rational reason cannot be introduced. For this reason, the DQI only assesses the extent to which participants give justifications sufficient that their comments become amenable to rational critique. In Habermas’ rendering of deliberative communication, arguments need to be justified in elaborate, logical and
rational fashion. Apart from Habermas's rationality, other theorists point out the testimonies of personal stories is also valid justification, since stories can create empathy and build credibility (Man bridge, 2010; Nan 2006; Druze, 2009). This is particularly true in the case of political communication among ordinary people on Weibo. Therefore both rationality and storytelling are coded as acceptable means of providing justification.

As shown in figure 2, 13 percent enjoyed only inferior justification, 23 percent had a qualified justification, and 17 percent were offered with sophisticated justification. Statistically, this result is not very different from findings on the levels of justification in European citizens’ deliberation. However, when considering the microblog’s 140 character limit and the grassroots nature of Weibo, this level of justification should be considered high relative to contextual factors. This might be partially accounted for by the fact that the mediated nature of the exchange affords netizens the time to craft their comments in relative anonymity and isolation. This is clearly different from offline face-to-face communication where there is a need to respond immediately to others: commenters on microblogs have the opportunity to compose more considered responses.

One interesting finding from the level of justification is a high frequency of using storytelling compared to what is seen in Western studies: posts including narrative claims account for 16 percent (N=53) of relevant replies in the sample. Thematic analysis also shows that personal testimonies were mostly used in discussion of issues close to most people’s life such as education (N=31), and the medical system (N=12).

In most cases, personal experiences serve to justify argument in an effective way. This can be illustrated by user bb’s comment on Representative Tu’s post about education system reform:

“I am an English teacher, I think the priority of reform is to improve the textbook. For example, there is too much vocabulary in the English text we are using at school. It becomes a burden to both students and teacher. The focus of new textbooks should be placed on promoting students’ interest in learning.”

China’s education system is typically criticized by students and parents as excessively examination-oriented, placing too heavy a burden on children. @bb’s voice representing a teacher is rare in the discussion space dominated by angry parents and students. His argument is convincing and sophisticated, since he not only provides reasons to support his argument but also offers a proposal to solve the problem. As Nanz (2010) and Morrel (2009) have pointed out, expressing one’s identity and speaking with one’s own voice should be allowed in public deliberation, as narrative and testimony can evoke sympathy and reveal the source of the speaker’s values, thus leading to a better understanding of the premises informing opinion.

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2 In Caluwaerts’ (2009) investment of public deliberation in Belgium, 18 percent speech acts were not justified at all, and 5 percent were sophisticatedly reasoned; in Gerber’s (2011) sample of Europolis, 19 percent had no justification, 36 percent were qualified and 22 percent were sophisticated; Himmelroos’ (2011) Finnish experiments found 12 percent opinions expressed were not justified, and 65 percent were either inferior or qualified justification, while 23 were sophisticate justified.

3 In Caluwaerts’(2009) Belgium study, 7 percent claims were justified with personal stories, while in Gerber’s (2009) case of Euroois, 10 percent speech were illustrated with personal experience. Finding from Himmelroos’ (2009) Finnish experiments shows that less than 10 percent argument were justified with personal stories only.
Content of justification - common good orientation

Participants in a deliberative process are supposed to have a sense of other-directedness, solidarity, or empathy that lead citizens to express concern for the well-being of other groups and of the wider community (Habermas, 1996; Mill, 1998; Rawls, 1993). This study measured whether arguments are cast solely in terms of narrow group interests or make reference to the common good. Appeals to the common good take two major forms: first, in utilitarian terms, the common good can be stated as the best solution for the largest number (Mill, 1998). Also, the common good is served if the least advantaged groups in a society benefit (Rawls, 1993).

In this research, 13 percent (N=43) (figure 3) of comments made reference to common good, 4 percent refer to other groups such as children and women, and only 5 percent of arguments referred to self-interest. The percentage of references to the common good in this study is much higher than seen other DQI studies conducted in Europe. For interpretation of the significant disparity between the results emerging from the Weibo case study and those seen in studies of European citizens, it is necessary to consider the social and political culture of China. Influenced by a Chinese perspective of social life, the understanding of governance can be very different from those guiding Western countries’ democratic conceptions. Whereas the Western emphasis is on the values of equality and individual autonomy, it is the value of social harmony that is at the centre in Chinese culture. This is why in China the priority is given to collective interests, where individuals’ obligations are privileged over individual rights. This is associated with using the public good as a point of reference when deliberating on political issues. Here are two examples in which people appeal to the common good when justifying their argument:

@few2: “Why don’t you give more attention to food safety, that’s well more important than your recycling project. When no quality food is available, the society cannot develop, and the future of our country- our Children cannot compete with other countries’ young people.”

@rwl: “Even though today’s people actually prefer to have only one child given the high cost of raising a child, the government still should reconsider its’ family policy. After all, the single child policy has already caused lots of social problems in the country; we should take action before when it is too late!”

The first participant justifies his argument on the food safety problem by referring to both common good- ‘the society’ and the interests of another group - ‘children’. The second comment is a fairly representative example of the preference of collective interest over individual interest, reasoning that the impacts’ of family policy on society should be seen as more important than individual choice. And since the reference to common good renders it easier to mobilize support and resonates with a wider audience, it can again be considered as a kind of deliberative competence: evidence of a petitioning savvy.

5.1.2. Respect - RQ 1.3

In the normative literature, there is agreement that mutual respect is a key quality of good deliberation (Mansbridge 2010; Thompson 2007; Habermas 1996). A distinction is made between respect for argument and respect for people in the DQI coding scheme. In terms of respect toward
opinions, 82 percent of arguments are considered implicitly respectful, in which case neither explicit negative or explicit positive statements are included, 11 percent appeared to be respectful explicitly, and only 7 percent contained overtly disrespectful language. With regard to attitudes toward people, there was more disrespectful content. 9 percent of posts made claims that degraded people, but the vast majority of these were targeted at government officials or other public persons, instead of offending other participants in the discussion. Overall, the tone of public conversation on Weibo was largely civil with only a few instances of clear disrespect, although it was also rare to see explicit respect. Disrespectful language was in the main used only to criticize authority.

When compared with findings from earlier DQI assessment of European Parliament discussion, and national parliament meetings in five Western countries5, there is a considerably smaller proportion of disrespectful content on microblogs in China. This finding indicates that the Chinese public is more civil in discussion than European professional parliamentarians. The parliament member’s cynicism might be explained by the fact that a full-time politician, especially a parliament member, has more motivation to compete against opponents and denigrate rivals in order to get re-elected. In contrast, ordinary people, especially Chinese, are more likely to take a modest attitude and have less motivation to attack others.

Democratic discussion in the Chinese authoritarian context should embody both the capacity to argue democratically and the opportunity to challenge authority. This section presents findings on the public’s voiced disagreement and its attempts to bring new discussion points onto the agenda to illustrate how authority might be challenged in the discursive process.

5.2 Disagreement

Individuals’ willingness to disagree with authority is perceived in this study as an indicator of quality deliberation. However, it needs to be pointed out that most deliberation quality studies place emphasis on agreement and reaching common ground. Actually, in the original version of DQI, constructiveness - participants’ ability to reach common ground - is included as a key criterion of assessment. But in this study an opposite concept - disagreement - has been employed to replace the variable constructiveness. As mentioned earlier, the reason for removing constructiveness is simple, as this is not an important dimension in the nascent Chinese deliberation context. There will be progress in this arena when monotonic unilateralism is replaced by diversity in opinions. The following section will first give a normative explanation of disagreement, after which findings will be presented, explained and discussed.

Disagreement captures the diversity of conflicting opinion. According to deliberative democracy theorists, disagreement brings dynamism and plurality to deliberation, but at the same time disagreement should be productive and manageable (Cohen, 2001; Goodin, 2000). Disagreement on Weibo is common, as 63 percent of commenters take a critical view of others’ opinions, but Weibo-based discussion failed to convert disagreement into productive consensus. Every participant held onto his/her initial position and made no meaningful efforts toward reconciliation.

5 The percentage of disrespectful content is surprisingly high. In the studies European Parliament, more than 20 percent of speech act showed no respect (Tamvaki and Lord’s 2010). Steiner’s (2005) investigation of plenary sessions of national parliaments in advanced democratic states also find that about 25 percent claims did not show any respect.
or consensus-building. These findings suggest that the microblog platform functions more like a space for netizens to express their political views than a Habermasian public sphere where discussions generate consensus.

In the Chinese context, the virtue of disagreement can be seen from normative and pragmatic perspectives. First, some theorists (He & Leib 2006: 106) express the concern that institutional deliberation in China yields only “fake consensus” that obscures real divisions and alternative opinions. Because of the excessive normative emphasis on achieving public consensus, and deference to the party, people with dissenting opinions may not be willing to give voice to their true feelings. For this reason, contestatory dialogues on microblogs may foster a genuine social integration of people with divergent opinions, and reach the basic normative goal of promoting social stability. From a pragmatic point of view, in a country where both decision making transparency and feedback mechanisms are scarce, contestatory dialogue can engender greater public faith in politics. Even though microblogs may not be able to serve as a deliberative space where people come and stay to discuss social problems until they reach a consensus, the platform’s openness and popularity make it an ideal tool for the government to engage in public consultation. With the help of microblogs they can reach a wide range of respondents within a short period of time, and the anonymity of the medium promotes frankness in the public’s expression of opinion.

5.3 New agenda

The public’s effort to challenge the deliberation agenda set by the authorities is the final dimension of deliberativeness covered in this research. This indicator, together with disagreement, is used to answer the second research question on Chinese netizens’ employing of microblogs to challenge authority during the discursive process. Because no existing empirical study of agenda setting in deliberation has been found, this section constitutes a first and exploratory study. It begins with a normative explanation of the significance of agenda-shifting, and then the results of thematic analysis of apparently off-topic posts will be introduced. Finally overt attempts to stimulate discussion of new topics will be discussed in detail.

Theorists of China’s authoritarian deliberation cast doubt on the democratic impact of political discussion in China, reasoning that the party can effectively avoid genuine challenge to its rule and at the same time promote its sense of legitimacy by manipulating the agenda of political discussion (Stockmann, 2013; MacKannon, 2011). Otherwise put, by agenda setting, the state uses pseudo-deliberation to achieve further authoritarian entrenchment. This is why this study looks into comments that are not relevant to the original topic, while the DQI assesses only relevant arguments. In this study, 165 out of 500 comments are not on the discussion topic. Results from the qualitative thematic analysis reveals that the irrelevant content can be categorized into five categories (Figure 6.):

The first category of posts refers to posts that are not on the given discussion topic but attempts to bring other political problems to the discussion agenda. The most common topics covered in this category include corruption, government [in]effectiveness, and deputies’ [un]representativeness. Other categories captured posts that are used for advertising purposes, meaningless automatic replies from zombie fans, and emoticons with unclear meanings.

By agenda setting, the authorities guide individual deliberators’ attention to certain issues, most of which are politically unimportant or uncontroversial. From this point of view, those posts in the first category in fact represent the public’s attempt to shift the discussion agenda, and to hijack the
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space for issues they believe to be more important. Notably, the topics of many of the posts placed in this category can hardly be discussed in mainstream media, such as criticism of high profile party leaders and questioning the legitimacy of the country’s political system. For example, a very popular representative - Zhu Yongxin- posted his proposal to set up a ‘Reading Day’ in China, and received two comments as below:

@jinn830: lifting the ban on those politically sensitive newspapers is more meaningful.
@xiajilan: Mr. Zhu, propose something to promote press freedom! That’s more exciting.

There are a few posts (N=8) in this group targeted on the representativeness of deputies in Lianghui. For example, one representative - Yang Lan - was found to be an American citizen this year. She wrote a Weibo post to discuss transparency on water pollution information with the public, however, in the randomly sampled 50 replies, 7 people actually question her qualification for being Chinese people’s representative. For example:

@rrt6: Yang we really appreciate a lot your interests in the well-being of Chinese people. Although you are American, but you concern about China -- we are so touched.

Some similar messages question the election process of representatives in China. There are a number of people who reply to deputies’ posts on political discussion by questioning the legitimacy of the country’s system of electing representatives. Below is one example, a response to Zhu Yongxin’ Weibo post soliciting netizens’ suggestions regarding his proposal at this year’s Lianghui. “How are our representatives selected? Why I have never heard about any election going on in my entire life?”

Although @Faigo did not offer a constructive proposal, as the representatives’ post required, he actually pointed out a fundamental problem of the legitimacy of the representation system. All these examples given above illustrate the public’s effort to bring new discussion topics to the agenda, which in most cases refers to problems with more pointed political significance. Certain scholars hold a skeptical view toward radical or dissenting political opinion in deliberation and highlight the important role that ‘great harmony’ plays in China’s traditional political thought, and contributes to the democratization process (Ogden, 2002: 257). However, although it might be true that people’s privileging social harmony can be a cultural particularity of China, this norm of ‘harmony’ can be too conveniently used by the party to justify its continued authoritarian rule (Rosenberg, 2006). When there is no alternative media channel aside from the web to discuss sensitive political topics, and when most citizens are still cautious about criticizing the authorities in the public, individuals’ attempts to challenge their agenda online brings a new dynamism to Weibo based deliberation in China.

6 Conclusion

The aim of this research has not been to arrive definitive conclusions about whether Weibo-based political discussion does or does not have the power to hurry the pace of democratization. Rather, this study has sought to examine the potentialities and limitations of this space to become a deliberative arena for Chinese people. To this end, a modified DQI was developed combining generalizable deliberative characteristics and sensitivity to the particularity of the context. Having assessed the Chinese public’s capacity to deliberate and their opportunity to challenge the authority in the discursive process, the study has provided evidence that microblog based discussions have a reasonably strong deliberative quality. This conclusion is made based on
comparison both with findings from earlier DQI studies, and also with offline deliberations officially organized by the government. Despite the fact that these findings are admittedly on a small scale case study of online political discussion during the Two Conferences, this study looks at deliberative practice in China at a national scale and for a key on hold event, and as such provides important insights.

Although the general findings are encouraging, there should be sensible caution about drawing broad conclusions about the democratizing effect of deliberation on Weibo based on the evidence of this study, not least because the question has here been assessed only with regard to Chinese citizens’ participation. To make the most of microblogs and other new ICTs for deliberative processes, efforts are needed from both sides - the state and the public. After all, although the study has demonstrated that Chinese netizens are capable of deliberating about many political issues, it remains the state’s decision as to whether it will take public opinion into serious consideration. For future studies on this topic of China’s online deliberation, it will be necessary to have more empirical studies to measure deliberative quality of discussions on different platforms. This study shows that a modified DQI can be profitably applied to the Chinese context. Different media forms can contribute to China’s public deliberation in different ways: for example, there is evidence from this research that Weibo is an ideal platform for public consultation, given its openness and popularity, but it can hardly contribute to reaching agreement on issues. This case study provided limited findings but as well provides a basis for future studies of deliberative quality in other social media. What should be highlighted of this study is its measuring instrument, which is developed on the most established measuring method in the West – DQI – with consideration of contextual factors of the authoritarian China.

References


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Social Media and Change Agents in Iran
Perspectives from Tehran and Baluchistan

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Abstract: Most research on the use of social media in authoritarian regimes do not go beyond classifying the country as authoritarian and does not consider continuous forms of collective action (e.g. voting). This study fills this gap by embedding long-term macro- and microanalyses. Through in-depth interviews with change agents in two distinct regions in Iran it highlights that it is not only the ‘what’ and the ‘how’ that impact the potential for using social media for political mobilization in authoritarian regimes, but also the ‘who.’

Keywords: social media, Iran, Baluchistan, collective action, change agents

The events in the Arab world in 2010/2011 re-sparked a global interest in studying the use of social media for political mobilization in authoritarian regimes. However, in its aftermaths, these ‘digital’ revolutions have had very different outcomes with regards to each country’s democratic transition. Despite this, few studies have moved beyond the ‘what’ and ‘how’ when it comes to social media to also include an analysis of the ‘who,’ which would allow for a deeper understanding of the underlying networks and how they influence the democratic transition. In order to understand how change agents perceive and use social media for political mobilization this study looks at an authoritarian regime that has not experienced a political revolution in the digital age. The study looks at the ‘what’ and the ‘how’ but will also deepen the understanding of the ‘who’ by looking at the usability gap between a majority population based in a nation-state’s capital and a minority population based in an isolated province.

1. Introduction

This study uses the theoretical framework of collective action, looking at both macro- and micro-structural factors. Iran, a country led by an authoritarian regime with evidence of social media activity, serves as the case study. While Iran has not experienced a political revolution in the digital age, it did experience a regime change in 1979; an event that still impacts Iranians’ perspectives of both domestic and international affairs. While many Iranians would like to see political change in the country, the means of getting there differs between those who believe that political reform is possible within the system and those who believe that a complete overthrow of the regime is necessary. In 2009, the presidential candidate Mir Hossein Mousavi, who advocated for reform within the system, received substantial support during his election campaign. When the
election results of the perceived fraudulent election were announced, his supporters took to the streets in what was coined by outsiders the ‘Twitter Revolution’. However, despite large demonstrations in the capital, the protests by the so-called Green Movement\(^1\) did not gain momentum in the more distant parts of the country.

Ahead of the 2013 presidential election several Green Movement sympathizers, based on their experience in 2009, called for a complete boycott – whilst others argued that if the former reformist president Mohammad Khatami (1997-2005), or somebody close to him, entered the race, that candidate would have their vote. In the end, former president Akbar Hashemi Rafsanjani (1989-1997) registered as a candidate to represent the Khatami camp. However, the Guardian Council disqualified the candidacy of Rafsanjani, leaving only two slightly more moderate candidates in the eight-man race: Hassan Rouhani and Mohammad Reza Aref.\(^2\) Despite the fact that the disqualification of Rafsanjani provided wind in the sail for those calling for a boycott, 44 days later the previously relatively unknown Rouhani stood as the winner after a massive election campaign that had included several references to the Green Movement as well as official endorsements by both Khatami and Rafsanjani.

This study was carried out in Tehran and the province of Sistan-Baluchistan, home to the ethnic and religious Baluch minority group, right before the 2013 presidential election. It applies the macro-structural dimensions of collective action to embed a socio-political analysis. This gives a deeper understanding of how both the national and the local context impacts how change agents use social media. In addition, this study looks beyond the discontinuous form of collective action (e.g. street protest) to also include the continuous form of collective action (e.g. voting). These perspectives are used to examine if social media opens up new political spaces in authoritarian regimes and what impact a usability gap might have on such political spaces.

2. Structural Conditions and Collective Action

From a macro perspective, Tilly (1976) divides collective action into two categories continues forms and discontinues forms. He argues that the first category has developed from craft guilds and collective appeals to its twentieth century form of elections, political parties, associations, pressure groups, trade unions, etc. The discontinuous form has developed from peasant revolt, tax rebellion and mutiny, towards less violent forms such as organized strikes, mass meetings and demonstrations. Further, Oberschall (2000), identifies four types of what he calls ‘necessary conditions of challenge,’ especially applicable when the aim of collective action is transition to democracy: (1) shared dissatisfaction with life conditions, (2) a shared discontent of the policy of the regime, (3) political opportunity such as division within the regime and international support for dissidents, as well as (4) the capacity to act collectively, including having access to means of mass communication.

From a micro perspective, the challenge is that even those that did not contribute to reaching the goal of collective action may benefit from the outcome. This creates what Olson (1965) refers to as the ‘free rider problem’. Resource Mobilization Theorists argue that providing people with the

\(^1\) Green was Mousavi’s election campaign color
\(^2\) Aref later withdrew his candidacy in order to strengthen the moderate camp in the elections.
right incentives to participate solves this problem. These incentives can be the individual’s expec-
tations related to the number of participants, one’s own contributions to the probability of
success, and the probability of success if many people participate (Klandermas 1984).

How these incentives work in practice depends on the homogeneity of the group expected to
participate. Heckathorn (1993) specifically argues that differently perceived costs of participating
(cost heterogeneity), which is more likely in a non-homogenous group, has a negative impact on
collective action. However, this perceived cost heterogeneity could arguably be overcome through
‘communicative action’ (Habermas 1984), which “emphasizes the interaction in which two or more
subjects seek to reach an understanding concerning their shared situation” (Thompson 1983,
p.279). Or put differently, ‘communicative action’ entails agreeing on ‘validity claims’ through a
communicative ‘framing process,’ which may be discursive, strategic, or contested (Benford and
Snow 2000).

3. Internet, Change Agents, and Political Mobilization

The discourse around the use of the Internet by change agents in authoritarian regimes has
divided scholars into two different camps: the ‘digital evangelists’ or ‘techno-utopians’ who preach
the use of the internet as a “soft weapon for democracy” (Pfeifle 2009) and the ‘techno-dystopians’
or ‘debunkers’, presenting a more pessimistic picture.3 The first generation of technology
‘debunkers’ were Habermas (1989) and Putnam (1995), who feared that the use of mass
communication tools would disassociate people from each other or that a new global on-line
network would have a detrimental effect on the local networks essential for political mobilization.
The second generation of Internet ‘debunkers’ is personified by the young Belarusian scholar
Evgeny Morozov, who has written and debated extensively about the overrated role of social
media for protest coordination (Morozov 2009a; Morozov 2009b; Morozov 2011). Even Morozov,
however, acknowledges the potential benefits of using social media and his critique is mostly
related to using social media to organize the opposition in authoritarian regimes (Morozov 2009a).
He argues that there is a need to identify how and by whom social media is used within
authoritarian regimes in order to get a clearer picture of its actual political impact (Morozov 2011).
While the purely ‘digital evangelistic’ view is disappearing, there is still a distinction in the
discourse, especially with regards to authoritarian regimes. But instead of the sharp line between
‘digital evangelists’ and ‘ techno-debunkers’, it might be more accurate to make a distinction
between ‘techno-optimists’ and ‘techno-pessimists’.

The ‘techno-optimists’ first focused on social media as a separate sphere (Rahimi 2003; Alavi
2005) and thereafter on linking on-line activities with off-line political impact. While not much
research exists with regards to the latter in authoritarian regimes in his famous 2011 piece “The
Political Power of Social Media,” Shirky argues that “social media have become coordinating tools
for nearly all of the world’s political movements” (Shirky 2011). However, he also acknowledges
that the actual impact of the use of social media by change agents has been very different and that
the reason for this is hard to determine since “empirical work on the subject is hard to come by”

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3 The phrase ‘digital evangelists’ is used by Gladwell (2010), the other phrases can, among other places, be
found in Christiansen (2011).
Techno-optimists have also argued that on-line platforms can help unify the opposition. Abdulla (2011) argues that even if the Egyptian revolution started long before 2011, it was the on-line platforms that were the main “catalyst” of the 25 January revolution as “Facebook and Twitter were instrumental in organizing, motivating, and directing these crowds” (Abdulla 2011). In their 2013 book Digital Media and the Arab Spring, Howard and Hussein argue that:

“Dissonant existed in these countries long before the internet. But digital media helped turn individualized, localized, and community-specific dissent into a structured movement” (Howard & Hussein 2013, p. 25).

An empirical study carried out among 26 well-known bloggers in Singapore 2013 concluded that on-line platforms “bring people from diverse backgrounds together in cyberspace and cultivate a shared collective goal” (Soon 2013, p. 201). Finally, techno-optimists have of late emphasized the importance of the ‘media system’ that links social media activity with broadcast media (Cohen 2012; Andén-Papadopoulos and Pantii 2013: Breuer et. al. 2014).

Techno-pessimists emphasize the need to be cautious with regards to potential benefits of using social media. The digital divide is still a concern, but while this discourse mostly focuses on the accessibility gap, more recent research shifts the focus to the usability gap, to what people can, or cannot do, with access (Dodson et. al. 2013). Techno-pessimists also emphasize that the Internet can be equally used by the regime to control the citizenry (Morozov 2009b: Lerner 2010), and that other groups of society that do not promote democracy are also on-line. A study carried out by Kelly and Etling (2008) on the Iranian blogosphere concludes that ‘reformist/sectarian’ blogs only represent one section of the Iranian blogosphere, which also includes other groups they classify as ‘conservative/religious, Persian poetry and literature, and mixed networks’. Combining the above arguments, techno-pessimists conclude that on-line platforms are not a reliable news source as both self-censorship by democracy activists and the presence of malignant forces on-line may distort the information.

4. Iran: a ‘most likely’ case?

Based on above arguments, a ‘most likely’ case for the use of social media for political mobilization in authoritarian regimes should fulfill four basic criteria: (1) the country is led by an authoritarian regime, (2) its citizens are already active in the social media sphere, (3) the citizens have access to satellite TV (i.e. the broader media system) in their own language, and (4) there is an opening up of a dynamic opportunity. The Islamic Republic of Iran fulfills all of these criteria. Firstly, it is ranked as one of the ten most authoritarian countries in the world in the Economic Intelligence Unit’s democracy index 2012. Secondly, there exists a well-established Iranian presence on the internet in general and on social media in particular. While Facebook, Twitter et. al. are blocked, they are widely used as half of Iran’s population use technologies, such as proxy servers and virtual private networks (VPN),4 which enables them to circumvent these bans (York 2012). Some research

4 Proxy servers, aka ‘proxies’, act as intermediaries between different on-line clients. They allow for anonymity and to protect the privacy of the sender and receiver of information as the information is not sent directly from one on-line client to another. A Virtual Private Network is a private network in a public network. It works like a wide area network (WAN) that you can connect to on the Internet. For example, VPNs allow employees to securely access the intranet while being outside the office.
indicates that as many as 58% of Iranians have a Facebook account (Knowless 2012). This may be compared to the 3.3 million Egyptian Facebook users, 4% of the population, in May 2010 (Malin 2010). Thirdly, even though satellite dishes are illegal, they are fairly common (Bruno 2009). While it is hard to estimate how many Iranians that have access to satellite TV, a survey carried out in 2011-2012 revealed that 19% of the respondents had watched satellite based channels in the past week (Wojcieszak 2012). Lastly, the June 2013 presidential election presented a dynamic opportunity. The above conditions make Iran a ‘most likely’ case for the use of social media for successful political mobilization in an authoritarian regime.

However, one particular characteristic of Iran that stands out is its highly diverse population; roughly 39% of Iran’s population belongs to ethnic minorities and there are also religious minorities such as Sunni Muslims, Christians, and Jews. This sets Iran apart from a country like Egypt, where 99.6% of the population is identified as ethnic Egyptian, and the Copts make up 9% of the population. In the hybrid regime of Ukraine, 77.8% of the population identifies as Ukrainians and 17.3% as Russians and in Syria, 90.3% identify as Arab and 74% as Sunni Muslim. Hence, in the comparative context the level of diversity in Iran is very high.

Despite this, there are no broadly available studies that identify whom within Iran that actually uses social media for political purpose and/or if the use of the same differs between the different groups. The only report found that looks at different types of Internet users in Iran is the study “Fights, Adapts, Accepts: Archetypes of Iranian Internet Use” (Abadpour and Andersson 2013). However, while this study categorizes different types of Iranian Internet users, it does not provide any demographic information of the same. This might be due to the general scarcity of empirical studies focused on the different ethnic groups in Iran. One study from 1994, however, argues that:

“Although Iran’s varied ethnic groups have for centuries inhabited roughly the same geographical era and shared in some cultural traditions, relations between the center and the periphery have never been free of tension and conflict.” (Banuazizi 1994)

Notwithstanding, how this translates into the use of social media by the different groups has never before been assessed.

5. Method

This study did not focus on the perspective of the most famous leaders of the Green Movement, most of who are either in prison or have left the country since 2009. Rather, it looked at the perspectives of change agents whom either participated in the protests in 2009, or who sympathized with its views but did not engage in any protests. The main sources of the study were semi-structure interviews and a social media analysis.


6 Per definition, the “role of a change agent is to change the worldviews of stakeholders towards an attractive but unknown future” (Coskun and Krdzalic 2008). How a change agent goes about this depends on how he/she perceives the structural opportunities for different methods – such as discontinuous or continuous collective action. Hence, a change agent might decide to not participate in street protest.
A total of ten semi-structured interviews were completed: five in Tehran and five in the Province of Sistan-Baluchistan. The sample size is rather small, but considering the security conditions it would not have been possible to carry out such in-depth interviews with a larger sample. The people interviewed were between the ages of 24 and 35, and all of them had completed university studies. Four interviewees were women and six were male— with all interviewees from Sistan-Baluchistan being male. For the safety of the people interviewed, it will not be further described how the contacts were acquired, however, they all fall within the category of people with the aim to change the perspectives of stakeholders and can be defined as ‘change agents.’ The interviews provided a deepened understanding of why each group decided to engage on-line, or not. They were used to determine (1) if the interviewees were engaged on-line and on which social media platform, (2) what the interviewees used social media for, (3) the perceived reliability of these sources, and (4) to what extent the interviewees participated in off-line political activities. They also provided unique information with regards to the interviewees’ perception of their national and local context.

The social media analysis provided information with regards to the use of this medium for political mobilization during the 2013 election campaign. The decision to analyze the Persian-language site Balatarin was based on its relative popularity in Iran as compared to other open source social media sites, especially Twitter. Balatarin was launched in 2006 and it is the most popular social media site in Persian (Rostami 2013). The social media analysis focused on posts on Balatarin between 22 May – the day after the official announcement of candidates – and 14 June, Election Day. The posts analyzed were the most popular posts that included the word “Rouhani.” The social media analysis allowed for looking at (1) how the presidential campaign was reflected on Balatarin, (2) what sources that were used, and (3) the attributes of those using the site.

6. The Use and Perception of Social Media in Iran

The study focused on two events: the 2009 presidential election and the 2013 presidential election. The use and perception of social media is based on the semi-structured interviews, and in the case of Tehran, these interviews are complemented by the social media analysis. Of the people interviewed in Tehran, all had some kind of experience from the protests 2009, while none of the interviewees in Sistan-Baluchistan had engaged in any off-line protests.

6.1. The Use and Perception of Social Media in Tehran

Social media did play a role in the 2009 protest, but the exact role it played was described differently among the interviewees. The three perceptions identified were: (1) social media was in general a good tool to organize the protest; (2) social media was a good tool for those already engaged in Mousavi’s election campaign, and (3) social media was not an optimal tool as it

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7 The site allows users to post their favorite blog posts, links, videos, etc., together with a small comment about the content of the link. The users will then vote on the links posted by other users and the post with the highest score will be shown at the top of the first page.
excluded a large segment of society, mainly the working class, from the information flow.\(^8\) Hence, this highlights both a usability gap (it only worked for those already engaged) and an accessibility gap (the working class did not have the same level of access).

However, it also became clear that even if on-line censorship and surveillance increased between 2009 and 2013 (Carrieri et. al. 2013), all interviewees had an account on at least one blocked site. The most popular site was Facebook, followed by Balatarin. None of the people interviewed had a Twitter account.\(^9\) Hence, the on-line presence of authoritarian regimes does not automatically omit the potential for change agents to use social media. However, on-line censorship and surveillance did impact what they used the accounts for; several did not feel comfortable discussing sensitive political matters on-line and several mentioned that face-to-face dialogue was preferable when possible.\(^10\) Most also expressed that they preferred Facebook to Balatarin due to prominent use of fake IDs on the latter site.\(^11\)

The use of social media in 2013 was also analyzed by looking at the Persian-language site Balatarin. This analysis provided evidence of on-line engagement in political matters as posts during the 2013 pre-election period reflected the rapidly increased popularity of Rouhani during the weeks leading up to the election (Fig. 1). The first distinct mentioning of him with regards to positive or negative attributes, as compared to just identifying him as a presidential candidate, came right before the first presidential debate on May 31.

\[\text{Figure 1: Positive and negative mentions of Rouhani collected from Balatarin between 30 May and 14 June, 2013 (Balatarin, 30 May – 14 June 2013)}\]

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\(^8\) Four out of five respondents agreed with the first statement, while the second statement was emphasized by ‘Persian, Female 30 years’ and the third statement was emphasized by ‘Persian, Male, 30 years’

\(^9\) While all of the interviewees were aware of the existence of Twitter, nobody stated that they had a personal account there.

\(^10\) Persian Male 30 years, Persian Female 30 years, Persian Female 28 years all expressed that they perceived face-to-face dialogue to be safer. One interviewee, Persian Female 25 years, thought that interacting on Facebook and interacting in a park was unequally unsafe, but Facebook was more accessible. In general, the two youngest interviewees, Persian Female 24 years and Persian Female 25 years, were more optimistic with regards to the ability of the people to circumvent and prevent the on-line censorship and surveillance of the government.

\(^11\) ‘Persian Female, 24 years expressively stated: “I trust Facebook more than Balatarin because there I can see who wrote, members of Balatarin are a little different…many of them live in the United States, sometimes they write their imagination. But people on Facebook, most of the time are more relevant, you can trust them more. On Facebook, most people use their real name”
The peak of positive posts on 12 June does not correlate with any of the presidential debates. It does, however, correlate with an election poll released by the foreign-based company IPOS\textsuperscript{12} that indicated that Rouhani had sailed up as the top candidate (Luciano 2013). This indicates that the users of Balatarin follow and use a combination of both official national sources as well as independent international sources.

The main purpose of the site seems to have been information sharing in order to impact the opinion of passive users. There is no indication of active users of Balatarin changing their view with regards to Rouhani during the election campaign; those who tended to be negative to begin with stayed negative throughout the election campaign. This can either indicate the limited potential for using Balatarin to drastically change active users minds or that active users of Balatarin are those who are already politically engaged and hold a firm stance. For example, the average length of membership for those who were clearly negative to the candidacy of Rouhani was twice as long as the overall average. This could mean that a long-term engagement, and probably more specialized knowledge with regards to the use of anti-filtering software, may be necessary in order to take a stronger anti-government stance even when on-line.

Combined with the information gathered in the interviews, it can also be concluded that the credibility of information was closely tied to if the source had an off-line presence in the country. For example, one interviewee expressed that “Iranian people are very sensitive to the forces from outside” and told the story of a respected activists who had left the country after being tortured, and how people immediately stopped following him on-line since he “doesn’t have that influence that he had inside the country” (Persian, Female 30 years). For this reason, and in accordance with the techno-pessimists, almost all the interviewees expressed doubts with regards to the accuracy of the news presented on Satellite TV, which is based abroad and often run by the Iranian diaspora.

6.2. The Use and Perception of Social Media in Sistan-Baluchistan

Despite being the province where Mousavi received the second highest percentage of votes in 2009\textsuperscript{13} and despite the fact that the Baluch closely followed the protest on social media and via satellite TV,\textsuperscript{14} none of the interviewees in Sistan-Baluchistan had participated in the protests. The main reason given for this was a perceived higher cost associated with participation due to their status as an ethnic and religious minority; all the interviewees believed that the repression against the Baluch for participating in street protest would be extreme as the government “has their own special policy for Baluch people” (Baluch Male, 30 years).

The Baluch interviewed said that the increased on-line censorship and surveillance did impact how they used social media; they preferred to establish contacts off-line and to use fake IDs when

\textsuperscript{12} Information and Public Opinion Solutions (IPOS) found at: http://ipos.me/en/about

\textsuperscript{13} Mousavi received the highest percentage of votes in the Province of Fars (58%), the second highest in Sistan-Baluchistan with 52%, and in Tehran he received 45% (Fifth place). Source: Simon 2009.

\textsuperscript{14} Based on interviews in Baluchistan, one interview expressly said: “If you see after the election in 88 (2009), I think Facebook and Twitter were the most social networks that helped a lot of the people in Iran to get the news, movies, pictures that what’s going on in Iran after the elections” (Baluch Male, 30 years)
signing up for on-line accounts.\textsuperscript{15} However, one interviewee argued that even if they use fake IDs, the discussion about politics related to Baluchistan is very vibrant on Facebook.\textsuperscript{16} Several of them described in detail how they had used social media sites while studying abroad (in Pakistan or India), but how the censorship in Iran had severely restricted their usage once they moved back. Two acknowledged to having their own weblogs, focused on the rights of the Baluch and Baluch culture and history respectively. However, the weblogs had almost immediately been blocked in Iran. This may be contrasted with weblogs about Persian culture and history that often do not face the same destiny.

In the end, while on-line censorship and surveillance did not stop the Baluch from using fake accounts or passively gathering information from social media, the perceived cost heterogeneity stopped them from taking action on the information received. However, as cost heterogeneity is not part of the equation when voting, Rouhani received 73\% of the votes in the province: the highest percentage of all the provinces.\textsuperscript{17}

\textbf{6.3. The Similarities and Differences in the Use and Perception of Social Media}

While nine out of ten people interviewed for this study had a Facebook account, there are two aspects that indicate that the perceived similarity here might be smaller than it first appears. First, most of the interviewees in Sistan-Baluchistan reported a very infrequent use of Facebook due to the effort it took to circumvent the censorship. They also expressed frustration with regards to a underdeveloped Internet infrastructure in the region. Hence, they reported lower levels of frequency of accessibility, impacting usability, than their counterparts in Tehran. Second, while both groups expressed concern over the increased levels of on-line surveillance, it impacted their on-line behavior differently. While both groups put a lot of emphasis on the linkages between off-line relations and on-line connections, as well as its impact on reliability, they had different ways of addressing this linkage. While the group in Tehran insisted on the higher level of reliability of social media accounts in the person’s real name, the solution from the Baluch side was to use with fake IDs on-line.

\textbf{6.4. Different Macro- and Micro Conditions and Its Impact}

From a macro-perspective, it is noted that Iran fulfills almost all the criteria identified for collective action with the aim of transition to democracy. The extensive lack of civil liberties leads to that discontent is widely shared and there is also international support for dissidents. The massive

\textsuperscript{15} One interviewee expressed fear over the government setting up fake IDs to lure people into traps on-line, and gave this a reason for why off-line relations are necessary: “I can only trust my friends, they were my classmates, they are mine, we are doing job in some places; I trust them...sometimes it happened, we made some anonymous ID, not original ID, with different name, and we go to Facebook and we share our ideas” (Baluch Male, 30 years)

\textsuperscript{16} Baluch Male, 30 years

\textsuperscript{17} “Iranian presidential election, 2013.” Wikipedia. Retrieved May 12, 2014 from: http://en.wikipedia.org/wiki/Iranian_presidential_election,_2013 (Note that this is the only source available and it is also cross referenced by the Iran Electoral Archive at the Scoula Superiore Sant’Ana, in Italy, which, at least according to the author, raises its validity).
support for Mousavi in the 2009 election indicates a shared desire for political change, but the lack of interest in participating in street protests expressed by interviewees in Sistan-Baluchistan demonstrate different perceptions of the structural opportunities for change through discontinuous collective action. This difference in perception could partly be explained by different development patterns in Tehran and Sistan-Baluchistan.

As identified by Tilly (1976), the different forms of collective action, the continuous and the discontinuous, have developed remarkably in the last century. In the case of Sistan-Baluchistan, we see that the development described by Tilly holds true for a continuous forms of collective action, i.e. voting. However, with regards to the discontinuous form, which according to Tilly has developed from peasant revolts to mass meetings and demonstrations, we note that the transition is not complete; even if secular leftist Baluch participated in the Iranian Revolution in 1979 and street protests do sometimes occur in the province (Esfandiari 2012), there is also the contemporary presence of an armed resistance group (Zurutuza 2011). This indicate that not even the minimal level of political space necessary for the modern form of discontinues collective action exists in the province.

From a micro-perspective, it is noted that off-line repression impacts the use of social media. The Baluch people interviewed mentioned several times the special treatment of the Baluch people, and what they called the ‘Baluch Policy’ of the regime.\footnote{Baluch Male, 30 years} They all perceived that the repression against the Baluch was much harsher than the repression against the Persians, both on-line and off-line. Essentially, the Baluch find as little safety in numbers on-line as they do off-line as they believe that merely being Baluch puts a target on them, and this is why they prefer to use fake on-line IDs. Hence, the perceived off-line cost heterogeneity also applies on-line and impact on-line behavior. This leads to that Persians and Baluch operate in different on-line spheres. Even if these spheres to some degree overlap, the division makes it difficult to use social media to overcome the perceived cost heterogeneity through communicative action.

7. Conclusions

The main questions that this study has aimed to answer are whether social media open up new spaces for political participation and off-line mobilization and the potential impact of a usability gap. What we see is that while on-line censorship and surveillance do not stop people from using on-line platforms, it does influence ‘how’ these platforms are used. How the on-line platforms are used, in turn, differs depending on ‘who’ uses them as different groups have different coping mechanisms to deal with censorship, surveillance and varying levels of off-line repression. The main finding of this study is therefore that: while on-line censorship and surveillance do not stop people from using social media for political purposes in Iran, different coping strategies limits the potential for social media to act as a unifying medium.

In essence, social media does not act as a unifying force since it is not a separate sphere in itself; rather it may consist of several different spheres that may or may not overlap. This is not only due to on-line censorship and surveillance, but also due to varying levels of off- and on-line repression. Notwithstanding, the different on-line spheres may present spaces for localized framing of
common messages. Hence, while social media do open up new spaces for mobilizing discontinuous collective action, the potential impact of this is limited by the fact that the on-line discourse tends to be localized and does not serve as a unifying force among change agents in the country.

When it comes to continuous collective action, this study demonstrates that subtle, even passive, continuous on-line engagement may in the end have more impact than an active protest mobilization discourse. In this study, we see how the Baluch transform their passive use of social media to having a real off-line political impact at the ballot box. The Persians’, on the other hand, used social media (Balatarin) in the days leading up to the 2013 presidential election to share information with passive users. While causation between on-line behavior and off-line voting patterns cannot be established, the correlation between the two is striking, especially considering the 2013 election during which the general attitude and motivation to vote for Rouhani changed very rapidly in both Tehran and Sistan-Baluchistan.

In sum, social media do open up spaces for political participation in Iran despite censorship and surveillance. However, varying levels of repression leads to perceived cost-heterogeneity, which impacts how the spaces are used. Hence, the contextual differences within the country lead to a usability gap that impacts the potential to use social media for nation-wide discontinuous forms of collective action. Notwithstanding, the passive use of on-line forums allowed for using social media to mobilize nation-wide support for continuous collective action for which no cost-heterogeneity exits. The success of Hussain Rouhani in the 2013 presidential election is evidence of this. In other words, ‘how’ social media is used and ‘what’ it can be used for depends on ‘who’ is using it.

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From the Academic Debate to Real-World Use and Back

Theoretical and Practical Implications of Social Media as Communication Channel in Crisis and Disaster Management

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Abstract: Crisis and disaster communication has had a long lasting tradition of relying on new information and communication technologies (ICT). Thus, it is not surprising that since their rise, social media have been embraced by crisis communication practice. At the same time, numerous studies and projects have started to shed light on the potential that social media can have in crisis communication. In this paper, we are taking a two-way approach: We first look at crisis communication practice, where social media undoubtedly have started to play an essential role for several reasons; secondly, we look at pertinent research papers and third party funded projects with the help of a recently conducted meta-study. The analysis reveals gaps as regards research and practice, but also between basic and applied research. Based on our findings, we suggest options how to bridge these gaps with the aim to benefit practical crisis communication from research evidence.

Keywords: Crisis communication, disaster communication, social media, meta-study, crisis and disaster management

In autumn 2013, minor earthquakes hit the region of the Eastern outskirts of Austria. They were perceptible in the greater area of Vienna and thereby touching a population not at all familiar with a trembling earth – although living in a zone with regular minor seismic activities (Hausmann et al. 2010). Within seconds after the shakings, Facebook users shared their impressions within their networks. An individual user with Facebook contacts around the region could quickly gain information and figure out where the earthquake was most noticeable: “Status Updates” reported about incidents such as “fissures in the wall” over “just a slight and short trembling” to “nothing felt at all”. In contrast, it was only a couple of hours later that the official meteorological services first mentioned the incident on their website.

Examples like the above suggest that social media have become an indispensable instrument in crisis communication, yet have revolutionized the way information is spread. This phenomenon
has been subject to several research studies and projects from different disciplines, in particular in social and communication sciences. At the same time, practice has shown different approaches how to use social media in actual crisis management, ranging from spontaneous and informal grass roots exchanges as in the above mentioned example to attempts of an institutionalized employment of social media in different crisis management processes (e.g. Ushahidi crisis mapping in several countries). In this light, the article at hand pursues the following research questions:

- Which role do social media play in disaster management practice?
- In which aspects is the current academic debate supportive to practical social media use in disaster management?
- In which aspects is further research needed to enrich practice?

In responding to these questions, Section 2 of this paper will focus on current practices of institutionalized social media deployment. Section 3 will summarize current and pertinent research, while Section 4 is working out research gaps and provide a conclusive summary.

1. Method approach

For answering the research questions introduced above, three sub-studies were used that are based on different methodological approaches: For analysing current practise (Section 2), we identified several practical cases through an iterative and multi-perspective review of relevant web sources, following Petticrew and Roberts, 2006. In addition to that, the knowledge gathering process and the analysis were enriched through first-hand experience from several pertinent research projects in which the authors participated (e.g. QUOIMA and SMD4Austria funded in the Security Research Program KIRAS from the Austrian Ministry of Transport, Innovation and Technology (bmvi), FP7 CAST).

As regards the analysis of pertinent academic papers, numerous academic studies in the area of social media and crises have been conducted in the field of media communications. Consequently, in section 3.1, publications in journals, periodicals and conference proceedings from this discipline are analysed. The respective research material was extracted from the established social-scientific media communications database ‘Communication & Mass Media Complete’ (CMMC) based on manifold search terms and search term combinations and considering January 2005, when the platform YouTube was launched (the most studied social media, Twitter and Facebook, followed in 2006), through August 2013 as relevant time period. A clear focus on citizen-generated content, public response or interactivity was another important criterion for papers to be selected, meaning that texts covering issues such as PR campaigns using social media for one-way communication purposes, social media crimes (for example in context with cyber-mobbing), and maintaining business reputation were excluded as well as texts focusing on citizen journalism only. Besides those exclusions, there was no focus on a particular shape of crisis with regard to research material selection, as for example natural disasters or technology malfunctions. Instead, any situation or

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1 The following search terms and search term combinations were used for research material collection: social media – crisis; social media – crisis communication; social media – humanitarian; social media – disaster; social media – emergency; crisis – ICT; crisis – digital; crisis – technology; crisis – online; crisis – network; crisis – mobile; social media monitoring; social media analytics; social media analysis.
event defined as ‘crisis’ within the academic texts was considered relevant for the study, provided those events or situations were labelled as ‘crises’ and related to social media. This broad approach allowed gaining a holistic picture of crisis communication in the realm of social media. Moreover, only papers written in English were considered for this meta-study, which is designed as a full survey. The mentioned selection criteria resulted in a sample containing 66 publications covering crises in connection with social media, from which data were collected, coded and analysed with the analysis software SPSS based on 56 nominal and ordinal-scaled variables.

Finally, next to academic publications in journals and conference proceedings that rather represent basic research, we also focused on research projects of a more applied character, notably on EU-level (collaborative projects funded in one of the European Commission’s Framework Programmes) (Section 3.2). Applying the same search parameters as in the academic article quests on the European Commission’s project database CORDIS, 24 relevant projects were found. The respective project abstracts were collected and analysed with the qualitative analysis software Atlas.ti in shape of a frequency analysis.

2. Insights into disaster management practice and the role of social media

2.1. The role of social media in crisis and disaster management

The discussion and practice of communication in crisis and disaster management have undergone several paradigmatic changes in history, in large parts initiated by the emblematic earthquake, tsunami and conflagration of Lisbon in 1755 (Chester 2008) which, as a positive outcome, brought along innovations in recovery and preparedness for incidents. In particular, this disastrous event was one of the first to be distributed over mass media and thus marked a major shift in communication practices that paved the way for the inclusion of a wider public through crisis reporting.

Actual risk and crisis communication strategies were developed as of the 1960s, which were marked by the idea to make people more ‘rational’ in their decision-making in crisis situations by applying top-down communication strategies. It was only in the 1990s that aspects such as ‘dialogue’ and ‘feedback’ arose as crucial demands in order to allow for discussion and exchange of opinions and information among citizens. While the idea of creating discussion platforms for citizens was emerging, the rise of the internet opened up new possibilities and changed the entire debate on risks and crises, but also citizens’ expectations towards communication patterns. The rapid development of Web 2.0 technologies starting with 2004 has increasingly enabled citizens to author and publish content (postings, videos etc.) and has thus reinforced these tendencies (Wendling et al. 2013: 10f). Nowadays, several social media sources are relevant when it comes to crises and disaster management and communication, which are summarized by Wendling at al. (ibid: 12) as follows:

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2 All texts (N=66) were coded by Irmgard Wetzstein (1 coder). Nevertheless, inter-coder reliability using Holst’s formula was measured within numerical categories with 2 coders (.89). Intra-coder reliability (2 weeks interval) was conducted successfully.

3 A list of research material used for the analyses in sections 3.1 and 3.2 is available at the authors upon request.
• Social networking sites (e.g. Facebook, MySpace): Information sharing and updates as well as coordination between volunteers and emergency services;
• Content sharing sites (e.g. YouTube, Flickr): Campaigning as well as exchange of pictures and videos for situational awareness in real time, but also for identifying victims or missing individuals;
• Collaboration/knowledge sharing sites (e.g. wikis, forums): Enhancing dialogues and exchanging information;
• Blogging/micro-blogging (e.g. Blogger, Twitter): Immediate information sharing with feedback possibilities;
• Specialized crisis management platforms (e.g. Ushahidi, Crisis commons, Crisis tracker): Mapping emergencies, “community emergency response team facilitator”.

In addition to that, further authors point to the possibility of information gathering through social media by the means of ‘social media analytics tools’ (SMAT). These tools are able to automatically collect, filter and analyze citizen generated social media contents and are increasingly used as decision support in different policy areas, notably with regard to crises and emergencies (Grubmüller et al. 2013; Backfried et al. 2013). In particular as regards early warning systems, new technologies have always been embraced in crisis management practice quickly. As a consequence, the usage of new and innovative technologies around social media as new communication channels is not surprising. However, as Wendling et al. (2013: 7) state: “These technologies have the potential to prevent communication breakdown through reliance on just one platform and thereby to reinforce the diffusion of warning messages but also present policy makers with new challenges”.

Parts of these challenges must be seen in a wider focus and touch upon ethical, privacy and data protection issues as well as aspects of digital divide that arise with governments retrieving information out of social media – a topic that is comprehensively discussed in Grubmüller et al. (2013). Next to the more general aspects of social media use for governmental purposes, a number of challenges are directly linked to the field of crisis and risk management. These are, amongst others, questions of coordination of the multiplicity of players and channels, varying perceptions between the public and authorities/experts, the combination of objective facts and subjective values, the risk of instrumentalisation, inaccurate information, rumors, the cultural bias or how to assure the right amount and frequency of information (Wendling et al. 2013: 8f). In total, these challenges can be summarized as to how to systematize a rapidly changing multiplayer and multichannel field when assuring bottom-up and top-down inputs while at the same time keeping them clear from inaccurate information, misuse and the confusion of facts and values.

2.2. From ad hoc to structured social media usage

As the example in the introduction shows, social media is often used for an ad hoc, basic and unstructured crisis communication, mostly initiated by directly affected persons during or in the aftermath of an incident. In addition to that, according to authors such as Sutton et al. (2008), examples of first responder and disaster management organizations can be found that have been successful in systematically implementing social media in their crisis management practice. Whilst the processes of introducing these practices can only be retraced in detail in few cases (Charlton n.a.), it will be shown that, apart from the vast but mainly unstructured and largely unused potential of social media interaction (in exponentiation of mere one way communication channel
use), an institutionalized application of different social media approaches can be more than effective in apt surroundings. This potential becomes much more significant in dynamically and critically changing events that also require the most frictionless coordination and cooperation of various different, often multi-national organizations and in the much larger context of community resilience (Dufty 2012).

For the compilation of this data, trusted open source information (retrieved with specified search terms in English and German language), social media appearances of governmental agencies and NGOs, emergency first response organizations and disaster management platforms were gathered regarding the focus, e.g. police intervention and natural disasters such as floods. Due to a screening and critical discussion process in thematic teams, strengths and weaknesses as well as the link to current research approaches were identified. The approach of the selected case studies can be rated sustainable and self-enhancing. The examples presented here mostly focus on the management and mitigation of (naturally induced) disasters and crises, the leverage of the use of social media in crisis communication and interaction for enhanced resilience and participation of the community.

The background for the understanding of these implications, chances and challenges of an integrated and overlapping aggregation of data-, information-, and network dependencies constituting social media is shown in the following figure, which also served as the structural basis for the identification of relevant interactions and practical cases as described in section 1.1:

Figure 1: Traditional model regarding information, communication and interaction in crisis situations enriched by new social media layer (Rainer et al. 2013: 121)

Since the 2004 Indian Ocean tsunami, open source and ad-hoc volunteer management (Gao et al. 2011) and later social media networks, platforms and other relevant channels have been used increasingly in a structured way. These developments helped to raise, facilitate and support different sectors of official disaster management and mitigation coordination. A peak of bottom-up social media use was identified, e.g. in the wake of the media coverage of the London bombings
2005, where journalists used citizens’ mobile phone footage and social media inputs (Yeomans 2012).

In the following years, severe disasters such as Hurricane Katrina 2005 (Google Official Blog: Hanke 2006), the Southern California Wildfires 2007 (Sutton et al. 2008), the earthquake in Haiti 2010 (Antoniou et al. 2013; Yates et al. 2011) and above all the disaster of Fukushima 2011 (Friedman 2011) were supported by social media and interactive web communities in a manifold but partially uncoordinated way. In essence, these findings led to the conclusion that “social media support critical information distribution activity among members of the public that […] needs to be better integrated with official disaster response activities” (Palen 2008: 78).

Focusing on the earliest and most successful integration of this bottom-up evolution of a new crisis support movement and the transformation into a structured, sustainable and durable tool, the Queensland Police created a unique practical case. Their implementation of social media in active everyday interaction with the community and, as a consequence, also in their crisis management represents a significant milestone in this development. The Queensland Police started this ambitious step forward with a trial use of social media accounts of Twitter, YouTube and Facebook in 2010. The aims were to claim social media presence, engage an active two-way communication with the online community, form a reliable presence for future crises, and thus building resilience and preparedness (Charlton n.a.). This strategic experiment came right to prepare a solid, widely spread and above all reliable information, communication and interaction system for the following period of natural disasters in the area of Queensland (Cheong and Cheong 2011).

2.3. Remaining challenges and gaps

Although the possibility of ‘many to many’-communication is one of the core strengths of social media, the above-mentioned examples revealed, in line with Ehnis and Bunker (2012), that the collaborative potential of social media has not yet been fully exploited. This was especially true for the Queensland Flood event (e.g. requests for support and emergency calls). Social media platforms (e.g. Facebook) or micro-blogging sites (e.g. Twitter) that were designed for supporting and steering interaction in the end were mainly employed for traditional information distribution via a new medium. It can be assumed that this is due to insecurities from the side of emergency management organizations as regards legal aspects such as accountability or general liability with misled calls for assistance in crisis situations via non-prepared social media channels (see for example the meta-study SMD4Austria). On the other hand, the need for trusted first-hand information from the affected areas well as the coordination of help via crowd-tasking is more and more attractive for the institutionalized disaster management and is implemented via pilot projects and research approaches.

The proactive interaction possibilities of social media like crowd sourcing and even more in the case of crowd tasking4 are more and more implemented into the daily emergency routine of blue light and disaster management organizations which prepares the communities for larger scale events (see e.g. Canadian Red Cross 2012, KIRAS Project RE:ACTA, Gao et al. 2011). This point will

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4 Crowdtasking in the context of disaster management can be understood as the structured implementation of locals supporting ad hoc simple but vital activities on site. They are specifically activated and coordinated via social media or similar networks (see e.g. Neubauer et al. 2013).
make a difference to common use of social media as an extended tool for information distribution in the traditional way and already enables access to much larger pools of information relevant for situation analysis and rapid and targeted and thus effective disaster management (Backfried et al. 2013).

3. Social media and crisis management in the academic debate

Scientific research on social media in crisis communication is manifold and can be found in academic articles as well as in research projects of a more applied character. The section at hand will provide an overview of on-going research in this area by highlighting the most debated contents as they were revealed through a meta-study previously conducted by the authors. In line with Wetzstein et al. (2014), this section will be divided in academic articles, reflecting research of a more basic character, and applied research projects. Significant differences and communalities will be discussed and confronted with practical evidence as outlined in the section above.

3.1. Academic articles

A large number of academic studies in the area of social media and crises have been conducted in the field of media communications. Consequently, as explained more in-depth in section 1.1, publications in journals, periodicals and conference proceedings from this discipline released from January 2005 until August 2013 were analyzed for this meta-study considering any situation or event defined as ‘crisis’ instead of pre-defining a certain concept of the certainly complex, multifaceted and often arbitrarily used term ‘crisis’. Nevertheless, most of the crises addressed in the in total 66 analyzed texts (16 texts/24.2%) use natural disasters, such as hurricanes, earthquakes and tsunamis as case examples rather than health crises, terroristic and criminal acts respectively, technology malfunctions, human errors, and social movements and protests.

As regards results, the meta-study, unsurprisingly, showed that the number of academic texts published in journals, periodicals and conference proceedings relevant to the media communications discipline has generally been increasing since 2005, mostly focusing on the micro-blogging service Twitter. Moreover, even though ‘one-way’ PR campaigns were explicitly excluded from the study, 17 (25.8%) of all 66 relevant texts were published in journals and periodicals with an explicit PR focus, which indicates that crisis communication via social media is generally strongly connected to PR in media communication studies as well as to interactive PR purposes involving citizens and a large social media audience respectively.

A large amount of papers deals with the use and emergence of social media during crises – crisis prevention and post-crisis situations are hardly issued – and respective message strategies (26 texts/29.4%), followed by functions, potentials, limitations and risks of social media in crisis situations (16 texts/24.2%). Intersections and comparisons between traditional media sources and social media are addressed as well (11 texts/16.7%). However, evaluation studies and the elaboration of models and concepts in terms of shaping ‘good’ crisis communication with social media – aspects that clearly can enrich and improve respective practical applications – occur less often with only 5(7.6%) and 8 (12.1%) publications. In contrast, the frequency of papers addressing a communicator and stakeholder perspective (23 texts/34.8%) and of texts with user and citizen-centered approaches (25 texts/37.9%) is almost balanced.

Quantitative method approaches and literature studies without empirical research generally predominate in the analyzed papers (both 27 texts / 40.9% respectively) in contrast to the use of
qualitative methods. The topic of functions, potentials, risks and limitations of social media in context with crisis communications, however, most often appears as literature study only (11 texts/68.8%). The study also demonstrates that negative or rather negative attitudes towards social media hardly occur in the analyzed journal articles, periodicals and conference papers, while there is an upward trend of ambivalent evaluations from 2008 until 2012. A more differentiated attitude towards social media in the realm of crises and crisis communication over the years can be therefore assumed. Positive or rather positive evaluation reached its peak in 2010 and decreased afterwards. Based on this outcome one can argue that critical reflection, analysis and evaluation and ethical implications of (new) phenomena, such as the use of social media for crisis communication, is one of the most important tasks in academic (basic) research.

However, the study also makes obvious that some research gaps do exist: For example, the analyzed papers hardly focus on qualitative approaches and on individual persons and their ways to deal with crises in context with social media. Moreover, limits and potentials of social media in crisis situations are not issues that are addressed empirically, whereas empirical research might support the development, evaluation and improved social media applications to be used for crisis communication. Last but not least, specific social media tools for crisis communication are hardly ever discussed in the analyzed papers, which is, however, not surprising as the research material was selected from a mainly social-scientific media communications database.

The study also revealed that the academic discourse on crises in connection with social media seems to take place most often in the USA, followed by Europe-based researchers. The African, Asian, Australian and South and Latin American continent are hardly or even not at all represented in the international academic discourse focusing this issue. Therefore, the involvement of authors based in respective regions is an important future task in order to be able to provide even more manifold perspectives on crises in context with social media.

3.2. Research projects

Applying the methodological approach as described in section 1.1, 24 funded projects were found via the CORDIS website from the European Commission under the work programs of ‘Information and Communication Technologies’, ‘Security’ and ‘European Knowledge Based Bio-Economy’.

As regards project aims, the most prominent can be summarized as ‘shaping ‘good’ crisis communication/management/response’ with 45.8%, followed by ‘enabling information gathering for decision making/service provision’ with 29.2% of all interested projects. Projects grouped in the category ‘shaping ‘good’ crisis communication/ management/response’ mainly deal with improvements of the information and communication flow and look at the role that social media in particular can take. A very prominent aim that is pursued by four of the 11 projects in that category is to connect existing communication systems, improve the interoperability of communication means and develop a standardized environment. Others aim to establish effective communication and collaboration strategies or to develop communication guides and support for policy makers. Projects in the category ‘enabling information gathering for decision making/service provision’ mainly deal with data mining techniques and social media monitoring/analytics allowing policy makers gathering user-/citizen-generated information that supports decision making processes in different aspects of disaster and crisis management. On a more operational level, these techniques are also meant to facilitate alerting systems. Both categories appeared equally frequently in all the FP7 project calls between 2007 and 2012. A
category that only appeared in projects submitted for the Security call in 2012 is ‘fostering citizen participation’. Projects under this category aim at using social media specifically for involving and empowering citizens as ‘in situ first responders’.

As to the crisis phases that are covered by the projects, most projects are very specific and directed towards one particular crisis phase. Only three of the 24 projects cover more than one crisis phase. Similarly to the focus of the investigated articles, more than 60% of the projects cover the ‘crisis handling’ phase. Crisis prevention and post-crisis aspects are each covered by three of 24 projects respectively. In contrast, concerning the shape of the crisis the projects are less specific. The majority of the projects cover more than one crisis type referring rather broadly to ‘natural and man-made crises’. Other projects are still less specific and simply refer to ‘crises’ without further elaborating about their type. The most prominent individual crisis type covered by the five of the projects can be classified as ‘terroristic/criminal act’; however, surprisingly enough, all these five projects have been submitted for the Security call in 2007, whilst in later years, terrorist and criminal aspects have no longer been dealt with.

Finally, in terms of target groups of the projects, the majority (9) aims at supporting first responders with ICT and social media technologies. More recent projects are aiming at involving and empowering citizens as ‘de facto’ and ‘in situ’ first responders (for example the Alert4All project, Johansson et al. 2012, etc.). On a more strategic level, decision-making authorities are the designated target group of five of the 24 projects. All of them are aiming at supporting decision-making processes in the realm of security policy, which is traditionally to be found on the national or EU-level only.

3.3. Common characteristics and differences

Out of the analysis it becomes obvious that the foci of the research projects in the sample differ to some extent from those in the investigated academic publications: First of all, research projects have a clear security-related focus, while a large amount of the analyzed academic papers is connected to the field of Public Relations. Moreover, while evaluation studies and shaping good crisis communication is a prominent research area within the field of social media and crises, the analyzed academic papers rather emphasize the use and emergence of social media during crises. Evaluation studies and research for shaping ‘good’ crisis communication with social media occur only peripherally within the analyzed academic papers, which is, however, the top category among the research projects. More similarities could be found as regards phases of crises, where in both sub-studies the crisis handling phase was found to be the most dominant. In terms of shapes of crises dealt with in research projects, ‘terroristic/criminal acts’ were very prominent in 2007, though no longer appeared in the subsequent years.

The frequency of centering stakeholders on the one hand and users, recipients and citizens respectively on the other hand is balanced in the analyzed academic publications, while research projects clearly take a stakeholder perspective, meaning that most of them are directed towards a clear target group which, in parts, is even represented within the respective consortia. Whilst first responders were the top target group through the entire investigated period, citizens increasingly appeared as target group as of 2012. This matches with the finding that in terms of topics, projects under the category ‘enabling information gathering for decision making/service provision’ mainly deal with data mining techniques and social media monitoring/analytics allowing policy makers
Research Papers, Case Studies and Policy Papers

gathering user-/citizen-generated information that supports decision making processes in different aspects of disaster and crisis management.

Also, most of the research projects can be considered a case study pilot, aiming at a more general implementation after the end of the project. Case examples, often related to natural disasters as within research projects, are used in the research papers as well, however generally not focusing practical implementation but critical reflection, analysis and evaluation, such as ethical implications of social media use in crises situations. Noticeably, a large amount of the analyzed academic papers do not contain empirical research but focus on existing literature only, especially when potentials and limitations of social media in crisis situations are addressed. Despite the mentioned differences, the analyzed research projects and academic papers share their focus on crisis handling rather than crisis prevention or post-crisis situations as a common characteristic.

Finally, it needs to be stated that the overview on academic debate presented as a meta-study comes along with some limitations. Emphasis was put on academic journal publications focusing media communications and third party-funded project abstracts, while conference contributions were hardly included and books, chapters etc. were completely excluded. Furthermore, the restriction on publications in English-language (section 3.1) and the small sample of analyzed research projects (section 3.2) do not allow for generalizations beyond this study, though are meant to provide deeper understanding and insights into these particular branches of pertinent research.

4. Conclusion: How can research enrich practice

The meta-study presented in this paper reveals, unsurprisingly, that in several aspects, practice is lagging behind research. The numerous functions of social media are far from being fully exploited in actual crisis management and communication. While research papers and projects tend to deal with complex use cases of social media in crises, authorities and first responder organizations rather limit themselves to using social media as ‘just another’ media channel for distributing information. Examples of a more complex social media communication strategy are rare and mostly limited to organizations participating in consortia of highly innovative research projects: Several of the analyzed projects aim at connecting existing communication systems, improving interoperability and developing standardized environments. It can be assumed that it will take time for these strategies to pervade actual crisis communication practice where flexible, accurate and reliable communication models and tools are needed.

As regards the academic publications used in the meta-study of Wetzstein et al. (2014), we also found a considerable number of contributions taking a rather critical standpoint towards social media usage, in particular concerning legal and ethical aspects. Also in recent projects such as the mentioned SMD4Austria or QuOIMA as well as in contributions from practitioners (Section 2), critical attitudes could be identified. Such critical (scientific) discourse must be considered necessary, especially since delicate aspects such as security and surveillance are concerned. In addition, communication strategies need to be fathomed in the public interest, closely considering societal developments and the potentially economically-driven practical implementation of social media tools.

The meta-study also revealed a stronger prevalence of structural and quantitative research approaches among the analyzed academic publications compared to qualitative ones. However, looking at the actual needs of crisis handling organizations, micro level knowledge as well as
evidence about individuals using social media in crisis situations can be useful. After all, both practical and theoretical approaches increasingly show a focus on stakeholders, aiming at enhancing citizens’ participation and resilience in crises and disaster situations (Wetzstein et al. 2014). Future research can clearly contribute to improve and advance practical social media usage for crises management by putting citizens into the centre of analysis. Here, interdisciplinary approaches with a strong social scientific contribution will be needed.

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The Role of E-Governance and Social Media in Creating Platforms for Meaningful Participation in Environmental Assessment

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Abstract: EA is now carried out in over a hundred countries worldwide and has deep roots in many nations. Critical to its evolution has been the advent of more meaningful processes for participation. The use of the Internet as a tool of participation, as well as the scope and ambition of EA, has been growing since their inception. This work explores the evolution in the use of e-governance and social media in EA and thereby its potential contribution to meaningful public participation, through considering the literature and case studies in Hong Kong and Canada. The cases and literature revealed that e-governance in EA is being almost exclusively used for sharing information and not for generating dialogue. Social media is being used primarily by participants in EA cases to share information, but is also being used to organize themselves and their input to EA cases. In addition, we found the innovative use of virtual cloud environments for collaboration and the establishment of one of the first websites for starting, signing and submitting public petitions with a focus on the local environment. Suggestions are made regarding how to better connect the rise in e-participation and conventional EA public participation.

Keywords: Environmental assessment, public participation, e-governance, social media, Hong Kong, Canada

At its core, environmental assessment (EA) is a governance process that should help to ensure what Beanlands and Duinker (1983) defined as ‘minimum regret planning’. Through assessment, we attempt to ensure that externalities are identified, evaluated and incorporated into the planning and decision-making processes. Furthermore, Meredith (2004, p. 469) observes that EA is “in principle, no more than a process by which common sense concerns about community futures are incorporated into decisions – public or private – that will affect the future”. As such, EA is a governance tool available to governments to achieve the societal objectives of environmental protection and sustainable development (Gibson, 2006; Lawrence, 2013).
1. Context

EA is now carried out in over a hundred countries worldwide and has deep roots in many nations. Critical to its evolution has been the advent of more meaningful processes for participation in EA (Sinclair & Diduck, 2009; Stewart & Sinclair, 2007). As observed by Devlin et al. (2005), Petts (1999), O’Faircheallaigh (2010), Morgan (2012), and others, public participation has long been recognized as a cornerstone of EA. In fact, for some, the basic legitimacy of an EA process is questionable if the process does not provide for meaningful participation (Gibson, 2012; Roberts, 1998) while others indicate that such participation is reflective of the “new thinking of concepts like deliberative democracy, collaborative rationality and environmental justice” (Morgan, 2012, p. 9).

The use of e-participation, as well as the scope and ambition of EA, has been growing since their inception (Gibson, Hassan, Holtz, Tansey, & Whitelaw, 2005). Government decision makers and EA practitioners have adopted the Internet as a helpful tool for electronically disseminating the EA registry and other information about a proposed project (Geldermann & Rentz, 2003). Electronic dissemination has proven to be a cost effective way of reaching many disperse people with the relevant information and is typically used in many jurisdictions (Dietz & Stern, 2008; Geldermann & Rentz, 2003). The Internet provides an electronic platform for information sharing and ensures that the public has timely access to all relevant information that is necessary to make an informed decision (Geldermann & Rentz, 2003; Odparlik & Köppel, 2013). Practice has shown, however, that presenting registries on the Internet is not always a direct legal obligation (Odparlik & Köppel, 2013). Further, even when registries are available on the internet some documents may be unavailable for proprietary and privacy reasons (Odparlik & Köppel, 2013). Unavailable documents can be challenging for participants who have only a brief period to prepare for participation (Odparlik & Köppel, 2013; Sinclair, Schneider, & Mitchell, 2012).

Though using electronic platforms to educate and inform participants is not new, finding ways to use the electronic tools to engage the public in meaningful participation and planning is relatively novel (Evans-Cowley & Hollander, 2010). Electronic tools have thus far been explored more thoroughly in planning ventures other than EA but are being investigated for usefulness in EA (Dietz & Stern, 2008; Geldermann & Rentz, 2003). The Internet is especially attractive because of its ability to connect geographically diverse people and those who may have limited time for participation and face-to-face meetings (Dietz & Stern, 2008). Perhaps since many EAs have well defined and relatively small geographic scale there has been little need for electronic participation until recently. With more “wicked” environmental issues emerging, characterized by larger geographic scope and more stakeholders and participants, conceivably EA practitioners will move towards more electronic and Internet based participation (as seen in Geldermann & Rentz’s 2003 study of two European Directives).

The EA literature seems to suggest that using electronic technologies for participation is beneficial (Dietz & Stern, 2008; Evans-Cowley & Hollander, 2010; Weber, Loumakis, & Bergman, 2003). For example, there is potential for electronic forums to create the two-way interaction among participants and also between the public and decision makers (Abelson et al., 2003). However, some have found that online participation in EA can lead to polarization in a way that face-to-face participation does not (Dietz & Stern, 2008; Iyengar, Luskin, & Fishkin, 2003; Price, Cappella, & Nir, 2002). There is also a divide between new forms of participation (i.e. electronic) and old institutions (Evans-Cowley & Hollander, 2010). Evans-Cowley and Hollander suggest, “citizens can participate in social networking to voice their opinions, but the public hearing is the
legal instrument of decision-making. If citizens do not provide letters in writing or appear at a public hearing, their opinion may not be heard” (Evans-Cowley & Hollander, 2010, p. 399).

Our purpose here is to explore the evolution in the use of e-governance and social media in EA and thereby its potential contribution to meaningful public participation, through considering the use of electronic tools by government decision makers, proponents and public participants. We do this by taking into account the literature and recent EA case based experience in Hong Kong and Canada, the two jurisdictions where we have garnered years of experience with EA through both project participation and involvement in developing legislative direction. The EA cases we consider were selected because they were recent, garnered significant public attention and had evidence of the use of social media to mobilize and engage people. Once selected, we reviewed case documents, visited web-sites and spoke to some participants.

2. Experiences from Hong Kong

In Hong Kong information technology and communication tools (ICT) such as inexpensive portable mobile and smart phone devices, wireless internet and new social media platforms have enabled communities and shared interest groups to unite in the cyber world of e-participation, activism and the projection of the community’s voice. In urbanized Hong Kong, according to a 2014 posting by the Office of the Communications Authority, the penetration rate of mobile phone subscribers is 236.8%, meaning that for every man, woman, and child in the region of just over seven million people, there are 2.3 mobile phones in use. As for the use of Internet services, statistics from the Census and Statistics Department of Hong Kong Special Administrative Region shows that, in 2012, almost 80% of households in Hong Kong have personal computers that are connected to the Internet, which is a significant increase from the 36.4% in 2000 (Census and Statistics Department Hong Kong Special Administrative Region, 2013).

It is fair to observe that the early adopters in Hong Kong’s e-participation were the opponents of planning, infrastructure and development projects, in both the government (public) and private sector, where opponents could freely raise their grievances with a significant and almost immediate influence on the community. For instance, in 2010 Christina Chan, a young, local, Internet-savvy, ‘Generation X’, activist, aroused public attention via her Facebook in her successful call for project opponents to come forward and surround Hong Kong’s Legislative Complex in a wildfire protest regarding the construction of a multi-billion dollar high-speed rail link between Hong Kong and its Mainland China neighbour, Guangzhou.

Aside from individual activists, green groups and opponents of specific projects have also used social media to share and rapidly multiply their points of view on other infrastructure projects in Hong Kong. International green group World Wildlife Fund launched an email petition campaign in Hong Kong in opposition of the EA of a Liquefied Natural Gas terminal site project as early as 2007. Over 20,000 petition signatures were submitted during the formal EIA public consultation period. The two cases mentioned above demonstrate that social media should be regarded as a rapid response ‘opinion-amplifier’ that is able to quickly raise the volume of oppositional voices in conventional media, such as print, TV and radio news.

In Hong Kong, the use of the Internet for dissemination of project information and expression of public opinion is found in most government planning, infrastructure and development projects. A current Hong Kong example would be the Tung Chung New Town Extension Study, which focuses on the future development of Tung Chung, one of the latest series of new towns in Hong Kong, from an 85,000 to a 220,000 person community to satisfy the ever-increasing demand for land and housing in the city. By setting up an official Study website\(^3\), the Hong Kong Government’s Civil Engineering and Development Department and Planning Department, are able to drive the agenda and control the information flow about the new town expansion by provision of continually updated, accurate details of the project. This form of e-participation and public engagement allows existing and future residents of Tung Chung, green groups, interest groups, district representatives and media to instantly view or download information. This comprises the e-versions of Public Engagement materials such as event dates and venues, leaflets, promotional videos and the principal summary public engagement document called a Public Engagement Digest, which contains information on the study background and details of the three-stage public participation process. The website is especially useful for encouraging the public to join the various conventional public participation activities designed to allow the proponent to share plans at key milestones and collect public views, as they were encouraged to view the Activities Schedule and register online for them. The website allows all internet connected citizens to be informed before voicing their opinions on the development, either by the traditional face-to-face attendance of events or by means of telephone, fax, and by e-mail via a downloadable opinion form that is available from the website.

Under the Town Planning Ordinance of Hong Kong, not only is the public able to submit their views by hand, post, fax or email, they can also make comments to the Town Planning Board with the online system that is available for each of the applications on amendment of plan, planning permission or review of planning permission. The community can also sign up for an email Notification Service to receive information of newly gazetted Statutory Plans weekly via e-mail on the Statutory Planning Portal\(^4\). For the applicants, guidance notes, relevant Town Planning Board Guidelines, application forms and completed samples are available for view or download on the Town Planning Board’s official website\(^5\).

Similarly, the Environmental Protection Department of the Hong Kong Government has set up a website for the Environmental Impact Assessment Ordinance (EIAO)\(^6\), which clearly explains the entire EA process, in a lay/non-technical language, and periods at which the community can submit their comments on issues that they would wish to be considered and studied in environmental studies of development projects. This e-participation tool is useful for both the applicants (project proponents) and interested parties, such as interest and green groups and the media. Applicants can submit their formal applications online through the Electronic Transaction System available on the Department’s website\(^7\). Proponents are, for example, able to make applications for EA Study Briefs, Environmental Permits, Variations of an Environmental Permit,

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\(^3\) www.tung-chung.hk/
\(^4\) www.opz.tpb.gov.hk/default.aspx
\(^6\) www.epd.gov.hk/eia/index.html
\(^7\) www2.ets2.epd.gov.hk/epde2/
and to submit supplementary information under various sections of the EIAO. Details and information is also uploaded in real time onto the website for the public to comment, and the public is allowed to search for their desired information by going through the different areas and district sub-sections, or click directly on an interactive map of Hong Kong. The public can also search alphabetically for the application history of designated projects or via key words. Similar to the Tung Chung New Town Extension Study website, an opinion form is also available for the public to download if they wish to submit their opinion formally during statutory public consultation periods.

For more general enquiries on public service, the Efficiency Unit of the Hong Kong Government has set up 1823 online, a web version of the Government’s 1823 hotline for public enquiries. The 1823 website is a one-stop-shop platform for the community to look for public information or to submit an enquiry, suggestion or compliment to the 21 participating government departments, for example, the Architectural Services Department, Buildings Department and the Civil Engineering and Development Department. The service is accessible through many different channels, such as the electronic form available on the website, e-mail, mobile app, phone call to 1823, SMS or snail mail. It has a 24-hour operation that allows the public to ask questions or voice their grievances on every subject imaginable.

3. Experiences from Canada

The use of ICT tools, such as those outlined above, is also widespread in Canada and they are used extensively for e-participation, activism and as a platform for community voice. However, unlike Hong Kong there are challenges particularly related to connectivity and the cost of wireless communication. In the Province of Manitoba, home to our first case study example, only about 80% of Manitobans had home internet access, according in 2012, the latest Stats Canada figure (2013). In Alberta and British Columbia, both implicated in our second case, the figure is 86% for the same year. As well, in terms of cell phone use some of areas of each province outside of the largest cities still have unreliable cell phone services, or no service at all and often where it is available it is not 3G/4G. One does not have to go very far north in Manitoba to have spotty, little, or no service, however many First Nations do have connectivity and widely use the internet. These points have implications for EA e-governance in Canada since many of the contentious resource developments proposed are in rural areas and the north. All provinces, territories and the Federal Government maintain web-sites and registries for EA related law, policy and other information, as well as EA case registries.9

The recent Keeyask hydroelectric project development proposal in Manitoba provides a useful case example. Keeyask is a proposed 695 megawatt hydroelectric development in northern Manitoba along the lower Nelson River (Keeyask Hydropower Limited Partnership, 2014). The energy generated at Keeyask will be integrated into Manitoba Hydro’s electric system and will be used in Manitoba and for export to other provinces and the United States. The Project is being developed as a partnership between Manitoba Hydro and four Manitoba First Nations communities, known as the Keeyask Hydropower Limited Partnership. The Partnership worked together to innovatively to propose this project.

8 www.1823.gov.hk

9 Visit for example: www.ceaa-acee.gc.ca/050/index-eng.cfm
There were several opportunities for public involvement, including a Public Involvement Program led by the Partnership during project development, government led public consultation on the EA and with potentially affected Aboriginal communities, public Clean Environment Commission hearings, and a public Needs For and Alternatives To Review led by the Public Utilities Board. Manitoba Conservation and Water Stewardship has an online Public Registry\(^{10}\) that has the filings from the EA available to the public and also provides opportunity to file public comments (Manitoba Conservation and Water Stewardship, 2014). The CEC maintains a website\(^{11}\) with application forms to receive participation funding or register to make a public presentation, e-registration for updates, hearing transcripts, hearing reports and hearing updates, all of which were used in this case. The commission also uses video conference/Skype links for people to present from distant locations.

The Keeyask Hydropower Limited Partnership also made the EA filings and other supporting documents available online through their partnership website\(^ {12}\). This site provided detailed information throughout the development and decision-making process. Everything from EIS documents, technical memos and reports to maps and photos were posted on the site and available for all to review. The site also provides opportunity to contact the partners. The site will now be used to post monitoring and reports to government since the project has approval for development. Participants also used ICTs for their preparation and participation. The Consumers Association of Manitoba was a key participant in the case, with the Manitoba Public Interest Law Center (PILC) bringing together experts from various fields from across the country to provide input on behalf of the Association. The development of the expert input by PILC for the hearing panel - that covered eight main themes, ranging from a health impact assessment of Keeyask to an assessment of the impact of the project on Lake Sturgeon - was all carried out by electronic means - primarily e-mail and Skype.

Manitoba Hydro also developed some unique approaches for working together with their partners and internal and external teams for the Keeyask project. They established a virtual cloud environment outside of MB Hydro’s mainframe system that could be accessed by company employees, partners and other external team members (e.g., EA consultants). The cloud was used as a collaborative space for the Partners to work together on EA documents, to coordinate activities, to respond to and refine documents and many other tasks (Vicky Cole, personal communication, June. 2014). For example, when the partnership was responding to the over 1000 interrogatory questions on the EIS over 150 authors were involved. By using the cloud environment, responses could be developed collaboratively among core authors. Draft and final documents were available when they needed to be, everyone had access to current versions, tasks were automated and notification was sent to review teams. This put an end to several rounds of often large e-mail attachments (and the difficulty tracking versions), and allowed for much more robust and collaborative responses (Vicky Cole, personal communication, June 2014). An external company manages the cloud for the partnership and MB Hydro has internal employees that manage the site. The site was, and is, a big investment and required a change in thinking about

\(^{10}\) www.gov.mb.ca/conservation/eal/registries/?#in_process

\(^{11}\) www.cecmanitoba.ca

\(^{12}\) http://keeyask.com
how communication and collaboration can take place during project development (Vicky Cole, personal communication, June 2014).

Enbridge Northern Gateway Project is a proposed twin pipeline from the northern Alberta Oil Sands (tar sands) to Kitimat, British Columbia as well as a marine terminal in Kitimat (National Energy Board, 2012) and provides examples of the use of e-governance and social media in a highly contentious case. The proposed pipelines are approximately 1,170 Km long. The westbound line would carry thinned bitumen petroleum products from the Oil Sands and the eastbound line would carry condensate to thin the bitumen for pipeline transport. The project proponent is Enbridge Inc, a pipeline manufacturing company. The project has caused plenty of conflict, over 60 First Nation groups in the area have organized in part through social media and signed the “Save the Fraser Declaration”, which recognizes the potential threat an oil spill could have on the environment (especially the river and salmon populations) and the First Nations’ right and responsibilities to protect the area. Many people and organizations across the country have joined together to oppose this project - both for direct environmental protection and as a way to combat climate change and our reliance on cheap fossil fuels - and maintain a web presence and communicate through social media. In her analysis of Twitter activity related to the oil sands and pipeline proposal White (2013) found that the main function of tweets was to disseminate information (57.5%) followed by mobilizing action (24.5%) and that much of the activity was generated by environmental non-governmental organization. She concludes that Twitter played an important role in mobilizing action and creating communities of interest. Globe media also reported that Twitter was “lit up” with reaction to the federal government’s positive decision on Northern Gateway and reported extensively on the mostly negative tweets.

In getting to a decision the Northern Gateway project recently underwent a Joint Panel Review (JPR) under the National Energy Board (NEB). The JRP hearings were held in different locations and allowed interested people to participate (National Energy Board, 2011). There were four kinds of participation available: letter of comment, oral statement, intervener, and government participant. A letter of comment is a written letter, sent to the JRP, which explains the participant’s knowledge, concerns, and views on the Northern Gateway Project. These letter can be submitted via email, fax, or mail and there is no need to register to send in a letter of comment. All letters are available on the project’s on-line public registry. An oral statement is a way for a participant to present their knowledge, concerns, and views on the project to the JRP in person at a hearing. Participants need to register to present an oral statement. To register, a participant may call or register online by completing a form. At present there is no electronic method (such as Skype or video conferencing) to accommodate participants and allow electronic oral statements during JRP hearings. Intervener participation is more involved and allows participants to submit questions and request information, submit evidence to the JRP, question other interveners at the final hearing, submit notices of motion, receive all documents submitted to the JPR, and submit a final argument. Registration for intervener status is necessary and the appropriate forms can be submitted online or via mail. Government participant status is for governmental organizations.

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13 http://savethefraser.ca
14 http://pipeupagainstenbridge.ca/the-project/enbridge-plan
15 globalnews.ca/video/1400724/northern-gateway-decision-social-media-reaction/
Research Papers, Case Studies and Policy Papers

(federal, provincial, territorial, or municipal) that want to participate but do not want to be interveners. Government participants must register to participate.

It is worth noting that the Federal government was a strong supporter of this project and used social media to support these ends. For example, The Honorable Joe Oliver (Minister of Finance and former Minister of Natural Resources) put out an open letter in January of 2009 (when he was Minister of Natural Resources). In the letter that underscores the need for the pipeline he calls those who oppose it “radical groups that would seek to block this opportunity to diversify our trade”. He goes on to say that environmental groups “threaten to hijack our regulatory system to achieve their radical ideological agenda. They seek to exploit any loophole they can find, stacking public hearings with bodies to ensure that delays kill good projects. They use funding from foreign special interest groups to undermine Canada’s national economic interest. They attract jet-setting celebrities with some of the largest personal carbon footprints in the world to lecture Canadians not to develop our natural resources. Finally, if all other avenues have failed, they will take a quintessential American approach: sue everyone and anyone to delay the project even further”17.

Social media can also be the battleground between proponents and ENGOs in an attempt to ‘inform’ the public. In this case Enbridge was accused of creating a misleading promotional video showing a much safer tanker route through the Douglas Channel than actually exists (by deleting approximately 1000 sq Km of islands in the channel). ENGOs used social media to illustrate the cartographic discrepancies and try to pressure Enbridge to remove the video that they allege is deliberatively misleading18.

4. Discussion and Conclusions

Information sharing is clearly one of the essential components of meaningful participation in EA – information about a proposed project and people’s reactions to it has to be shared (e.g., Sinclair and Didcuk 2009). Both the literature referenced above (e.g., Geldermann & Rentz, 2003; Dietz & Stern, 2008; Odparlik & Köppel, 2013) and our case reviews in Hong Kong and Canada indicate that e-governance in EA through the use of various ICT tools is being used primarily for the purpose of sharing information and that this helps to promote efficiency and fairness of process. The use of electronic registries, where they exist, and other tools are facilitating and thus, democratizing, participants’ greater access to project documentation than historic library and project databases or civic archives. Further such digitized information and documentation can be instantly shared, for support and opposition, around communities, interest groups and the world. The case studies underscore, however, the crucial importance of maintaining conventional participatory information mechanisms such as a paper registry and continuing to make that registry easily accessible to those directly affected in regions where there is no or limited connectivity. In both Hong Kong and Canada there are also those not yet connected to the internet, such as the elderly or people or parties without the financial means to access ICT tools or who are unfamiliar with the ICT world that must be considered as participation plans are developed.

While information sharing through such e-governance is an essential on-ramp to meaningful participation our cases indicate further that sharing has largely been of the monologue form of

17 www.nrcan.gc.ca/media-room/news-release/2012/1/1909
information-out and that e-governance tools are not being used to promote the sorts of two-way dialogue and deliberation essential to meaningful participation and genuine project betterment through involvement. The Manitoba Hydro case does indicate that proponents are looking for ways to use electronic means to communicate more effectively with their partners, the consulting community and government through using cloud space e-environments. Participants have also used ICTs to communicate and organize among themselves in preparation for events such as hearings. They have shared information back and forth to refine and finalize submissions for example. Further interest groups are also democratically utilizing international databases, information and even interrogated sources that can be geographically remote from the project.

It is also clear that social media is being used by EA participants and extensively used by the ENGO sector of participants, likely due to its potential reach and cost. Again the Canadian and Hong Kong case studies and the literature (e.g., Evans-Cowley & Hollander, 2010; White, 2013) reveal that Twitter, Facebook and other communication tools are being used by participants to share information and to mobilize people to become involved and to invoke actions, such as joining a forum or protest. In the EA context social media has been useful for uniting the voices of individuals who have the same views on planning and development issues and helping them to organize to participate in EA cases. Gaining voice through these means is also evolving quickly. Support HK19, a non-profit initiative launched in 2013, is the first website in Hong Kong for starting, signing and submitting public petitions with a focus on the local environment to different government departments or politicians in Hong Kong. As stated on the website, it is completely open to both individuals and organizations and enables concerned parties to connect with and gather suitable quantum of support from others to lobby for change. Each petition on the website could also be easily shared elsewhere on the Internet, such as social media sites.

We see great potential for establishing more meaningful participation through finding ways to better connect this rise in e-participation and engagement occurring through e-governance and social media with conventional public participation via face-to-face meetings, public forums and roving exhibitions. The public can be informed of project details and proponents can be informed, almost in real time, to the publics’ concerns in terms of local knowledge or issues. One can also envision opportunities for improved connections through the use of virtual spaces as seen in the Keeyask Hydropower Limited Partnership. For example, there could be the addition of collaborative space to such cloud environment. As well, participants to the CEC hearings could be given collaborative space in a virtual cloud environment to automatically enter data, comment, modify submissions and so on making the process more user friendly for all parties and the eventual face-to-face hearing more productive.

There is also huge opportunity in considering how social media might be used beyond a ‘salt and pepper condiment’ to conventional communication and engagement tools to actually enhance public participation. For example, there are many sectors that have traditionally not been involved in EA such as youth (i.e., people under 25) and there is clearly the potential to tap into this demographic with social media. It seems to us that while the literature indicates that electronic tools should be utilized alongside more traditional “in-person” participation methods (e.g. Evans-Cowley & Hollander, 2010), there has been little consideration or thinking about how EA decision makers might create meaningful opportunities for participation to do this. In this regard we

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19 www.supporthk.org
suggest that government re-engage in EA participatory processes by providing the resources necessary to create forums and chat rooms around which people could provide e-input into decisions at hand. One suggestion is to utilize gaming technologies to appeal and more meaningfully connect and engage youth and in Hong Kong the EA process has harnessed 3D EA based on the popular city building computer games SimCity and Megapolis. In suggesting greater integration of social media we understand that a real issue is that government institutions and proponent organizations have little control over their message, who has access to it, and how it is used in this environment.

In suggesting further consideration of how e-governance and social media can help to encourage more meaningful EA participatory process, we recognize the need for finding new approaches to engagement as traditional means wither. For example, while we do not want to see people’s opportunity to voice their concern about projects through EA hearings wane and weaken, the reality is that hearings occur in by far the minority of EA cases in most jurisdictions (normally less than 2%) and that number is falling further. Better integrating e-governance and social media for participation in EA can provide important new and lower-cost approaches to ensuring community voice is a part development decision making. In suggesting this we remain cognizant of fact that while social media sites like Facebook have billions of users and present opportunities for greater participation in EA, use of such sites for participation cannot further marginalize those who do not have the ability to use technology and those who do not have access to the Internet, especially in relation to decisions that affect them - care must be taken in moving forward (Dietz & Stern, 2008).

References


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Social Media in Policy Making
The EU Community Project Approach

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Abstract: Policy networks are highly important for the formulation and implementation of public policies, so it is quite valuable to exploit modern ICT in order to support them. This paper presents a novel method of supporting the large policy network of the European Union (EU), which consists of numerous actors geographically dispersed all over Europe, through advanced social media exploitation, in order to improve the quantity and quality of their interaction, and increase efficiency and effectiveness. Based on a series of workshops, in which a large number of individuals involved in EU policy network participated, initially its structure has been analyzed, and then the proposed method has been formulated. Furthermore, the architecture of the ICT infrastructure required for the application of this method has been designed. The main pillars of the proposed method (corresponding also to the main modules of its ICT infrastructure) are: profiling of important EU policy actors’ and reputation management, relevant documents’ storage and relevance rating, and finally advanced visualized presentation of them.

Keywords: Social media, Web 2.0, government, policy network, reputation management

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Political sciences research has revealed the importance of policy networks, consisting of both governmental actors and non-government actors, in the modern governance system, for the formulation and implementation of public policies (Skogstad, 2005; Rhodes, 2006; Rhodes, 2007). Due to the increasing complexity of the social problems in the last decades, governments started realizing that they needed the knowledge, the resources and the cooperation of various non-government actors, in order to design and implement effective public policies; this gave rise to the development of policy networks, and the gradual increase of their importance. It is important to take into account on one hand the findings of the political sciences research on policy networks, and on the other hand the rapid technological advancements in the ICT domain, in order to use the latter for supporting the former.
Definitely one of the major advancements in the ICT domain has been the emergence and wide penetration of the Web 2.0 social media. Though initially they were exploited mainly by private sector firms, later government agencies started using them for enhancing communication and interaction with citizens, collecting opinions, knowledge and ideas from them, and promoting transparency (Bertot et al., 2012; Bonsón et al., 2012; Chun & Luna Reyes, 2012; Criado et al., 2013). The first government attempts to exploit social media were oriented towards the general public. Their evaluation (Ferro et al., 2013; Loukis et al., 2014; Xenakis et al., 2014) has shown that they can provide valuable insights into the perceptions of the general public concerning important social problems and government activity for addressing them; however, they have also concluded that very often these social media discussions lack quality and depth, and recommended that in order to address this weakness it is necessary to target specific communities having strong interest and good knowledge on the particular topic/policy under discussion.

The research presented in this paper contributes to filling the above research gaps, by developing a novel method of supporting the large policy network of the European Union (EU), which consists of numerous actors geographically dispersed all over Europe, through advanced social media exploitation, in order to improve the quantity and quality of their interaction, and increase efficiency and effectiveness. Parts of the opinions and positions of these actors are publicized through well known knowledgeable persons, recognized as thematic experts, through articles in newspapers and news websites, or postings in discussion fora, blogs or other social media. On these documents our method is focused on, and it will include automated retrieval of them from their initial sources, as well as retrieval of data about their expert authors, and also advanced processing of them; the latter is going to include relevance rating of these documents with respect to various thematic categories, and also credibility ranking of their authors. This will allow the EU Commission and the actors of their policy networks to access the most relevant documents on a topic they are interested in, and also the most credible experts on it, and through them to access knowledge, opinions and positions of other policy network actors. This novel approach can give rise to a new generation of social media exploitation in government, which is more focused on highly knowledgeable policy communities and networks, but can co-exist and be combined with the previous wide public oriented ones, being complementary to them. The research described in this paper has been conducted as part of EU-Community project (http://project.eucommunity.eu/), which is partially funded by EU.

The paper is organized in six sections. In the following section 2 the background of our study is presented, followed by our research methodology in section 3. In the next two sections the first results of our research are outlined: the identified structure of the EU policy community and the basic concepts of the proposed novel approach (in section 4), and the functional and technological architecture of the required supporting ICT platform (in section 5). The final section 6 summarizes the conclusions and proposes future research directions.

1. Background

1.1. Policy Networks

Extensive research has been conducted in the political sciences domain on policy networks, which has shown their importance in the modern governance system for the formulation and implementation of public policies (Skogstad, 2005; Rhodes, 2006; Rhodes, 2007). Policy networks are defined as sets of formal and informal institutional linkages between various both
governmental actors and non-government actors (such as representatives of industries, professions, labor unions, big businesses and other interest groups, and also knowledgeable experts), structured around shared interests in public policy-making and implementation. They first gained currency and importance in the 1970s and especially the 1980s, when governments expanded their involvement in the society and the economy, so policy making became much more complex and specialized than previously. In this context, governments realized that previous unilateral modes of governance are insufficient, and that they need the resources and cooperation of non-state actors (initially economic actors and later other social actors as well) in order to have predictability and stability in their policy-making environments, and to design and implement effective policies. This trend was strengthened later due to the further increase of the complexity of the big social problems that had to be addressed through public policies, the globalization of the economy, and the emergence of supranational governance institutions, such as the EU (Pfetsch, 1998; Ansell, 2000; Peterson, 2001). In policy networks the non-state actors provide to the state actors on one hand information, knowledge and expertise, and on the other hand support for the formulation and implementation of public policies, and legitimization of them; in return the former have the opportunity to influence public policies (e.g. legislation, allocation of government financial resources) towards directions that are beneficial to them.

There are important differences among policy networks functioning in various countries and sectors with respect to the number and type of participants, the balance of power among them, the distribution of important resources, the density of interaction among participants, the degree of homogeneity in value and beliefs and the functions performed, which impact significantly participants’ behavior and policy outcome (Atkinson & Coleman, 1989; Van Waarden, 1992; Marsh & Smith, 2000). This has lead to the development of several policy network typologies. In some of them government agencies are dominant (state directed networks), in some others societal actors have more power (clientele pluralist networks), while there are more ‘balanced’ ones as well, in which there is balance of power between state and economic actors (corporatist networks). Another important characteristic of policy networks is the density of interactions among participants: according to networks that are stable over time and are characterized by dense interactions among network members can foster the development of shared values and beliefs concerning desirable policy objectives and instruments, and also cooperation rules.

Furthermore, policy networks are important mechanisms and facilitators of policy changes in cases of important changes in the external context (e.g. economic, ideological, knowledge, institutional changes) (Atkinson & Coleman, 1992; Marsh & Smith, 2000; Howlett, 2002). Contextual changes are usually sensed by one or more network’s actors, who inject new ideas to the network, which are then transmitted to the other actors; furthermore, very often external context changes lead to changes in policy network’s composition, entry of new actors, and also changes in the levels of influence of the existing actors.

1.2. Social Media in Government

It is gradually recognized that social media have a good potential to drive important and highly beneficial innovations in government agencies, both in the ways they interact with the public outside their boundaries, and in their internal operations and decision making (Criado et al., 2013). They can lead to the creation of new models and paradigms in the public sector (Chun & Luna Reyes, 2012):
1. social media-based citizen engagement models,
2. social media-based data generation and sharing models, and
3. social media-based collaborative government models.

Social media provide to government agencies big opportunities for increasing citizens’ participation and engagement in public policy making, promoting transparency and accountability and ‘crowd sourcing’ solutions and innovations (Tapscott, 2009; Bertot et al., 2012; Bonsón et al., 2012; Chun & Luna Reyes, 2012; Criado et al., 2013; Loukis et al., 2014).

Though the history of social media exploitation in government is not long, there has been a rapid evolution in the relevant practices, so that we can distinguish some discrete ‘generations’ in them. The first generation of social media exploitation in government was based on the manual operation of accounts in some social media, posting relevant content to them (e.g. concerning current and future policies and activities) manually and then reading citizens’ interactions with it in order to draw conclusions from them.

It was quickly realized that this approach was inefficient, and this gave rise to the development of a second generation of social media exploitation in government, which is characterized by higher level of automation of the above tasks, taking advantage of the extensive and continuously evolving API that social media increasingly provide (Charalabidis and Loukis, 2012; Ferro et al., 2013). In particular, the main characteristics of this second generation are the automated posting of policy related content in multiple accounts of the government agency in various social media, and then the automated retrieval of various types of citizens’ interactions with this content (such as number of views, likes and retransmissions, comments, etc.); finally sophisticated processing of these interactions is conducted in order to support drawing conclusions from them.

Furthermore, a third generation of social media exploitation by government is under development, in which government agencies go beyond their social media accounts (Wandhöfer et al., 2012; Bekkers et al., 2013; Charalabidis et al., 2014). In particular, they retrieve the extensive public policy related content created by citizens freely (without any government initiation, stimulation or moderation) in numerous social media sources (e.g. political blogs and microblogs, news sites, etc.), in a fully automated manner (using their API). Then they proceed to advanced linguistic processing of this content, in order to extract needs, issues, opinions, proposals and arguments raised by citizens on a particular domain of government activity or policy of interest.

The above three generations of social media exploitation by government share a common characteristic: they were oriented towards the general public. The first evaluations of them have shown that they can provide useful information concerning the perceptions of the general public concerning advantages and disadvantages of existing government policies, and also important issues and problems, and also some ‘high-level’ solution directions proposed by citizens. This information is definitely useful for the design of public policies taking into account the perceptions and opinions of the general public. However very often it is at a too high level and lacks depth, quality and elaboration (Ferro et al., 2013; Loukis et al., 2014; Xenakis et al., 2014). Therefore it is recommended that in order to address this weakness it is necessary to target specific communities that have strong interest and good knowledge on the particular topic/policy under discussion. Furthermore, both government agencies’ staff and politicians’ assistants who participated in the above evaluations mentioned that for all the policy related opinions and proposals posted in social media important for them is not only the content but also the author as well: more important for
them are opinions and proposals coming from widely recognized experts (e.g. university professors, researchers, even specialized journalists) or representatives of some social groups (e.g. elected officials industry federations or labor unions).

2. Research methodology

In order to gain a better understanding of the structure of the policy network of EU, formulate the proposed method of supporting it through social media exploitation, and collect users’ requirements from its ICT infrastructure, thirteen workshops were organized as part of the preparation and the implementation of the abovementioned EU-Community project. The EurActiv.Com (a leading EU policy online media network (www.euractiv.com), which participates as partner in this project) and the FondationEurActivPolitech (a public service foundation having as main mission to bring together individuals and organizations seeking to shape European Union policies, also partner of this project’ (www.euractiv.com/fondation)) were the organizers of these workshops. The participants were various representatives of important EU policy stakeholders (such as industry federations), members of the advisory boards of EurActiv.Com and FondationEurActivPolitech, thematic experts in several EU policies (such as the renewable energy policies), policy analysts, registered users of EurActiv.Com portals; also permanent staff of various hierarchical levels from the European Commission, including the Director-General of European Commission DG Connect.

The first five workshops aimed mainly to gain a better understanding of the structure of EU policy network, and also to formulate and elaborate the proposed method. The next five workshops had as main objective to elicit and collect users’ requirements from a ICT infrastructure supporting the exchange of knowledge, opinions and positions among the actors of EU policy network. The final three workshops aimed to validate and elaborate the findings of the previous ones; also their participants filled a questionnaire concerning the EU policy related tasks they needed support for. The large experience of EurActiv.Com and FondationEurActivPolitech in EU public policies formulation through extensive consultation with stakeholders (who very often publish stakeholders’ position documents on various EU thematic policies in the portals of EurActiv.Com) was very useful for the successful execution of the above tasks.

3. The proposed method

The first finding of our analysis was that the EU, due to the big number of its involvement and intervention domains, the complexity and at the same time the importance of its policies, which concern its 27 member states (being quite heterogeneous in terms of economic development, political traditions, culture, etc.), has a large policy network. It consists mainly of three groups: decision makers (high level employees of the European Commission, the European Parliament, the Council, and other EU institutions), influencers (representatives of EU industry federations, non-governmental organizations (NGOs), multinational corporations and many ‘think tanks’) and policy analysts (journalists of many international media organizations that are specialized and highly knowledgeable in EU policies and operation, and high level employees of specialized Brussels-based consultancy firms having expertise in the EU policy processes). Part of the information, opinions and positions exchange among them takes place through articles in newspapers and news websites, or postings in discussion fora, blogs or other social media, authored by well known highly knowledgeable persons who ‘represent’ (officially or unofficially)
network actors, while a more confidential part is exchanged through face-to-face meetings, or personal e-mail exchange. The proposed method aims to support the former part of information, opinions and positions exchange among the large EU policy network through advanced exploitation of ICT; however, in order to avoid ‘information overload’ problems we adopt a ‘selective’ approach (with respect to the material presented by the supporting ICT infrastructure).

In particular, based on the conclusions of the evaluations of existing approaches to social media exploitation in government (see section 2.2), the previous research on policy networks (see section 2.1), and also the above analysis of the needs of the EU policy stakeholders (identified using the methodology described in the previous section), we developed a novel method of social media exploitation by government agencies for supporting their policy networks. It focuses on supporting the above extensive policy community of the EU, however it has a wider applicability for any type of government agency. The above needs’ analysis revealed that EU policy stakeholders need to be better informed on the most knowledgeable and credible people, and also the most relevant documents on a specific policy related topic they are interested in; also, they need to associate the latter with the various stages of the EU policy processes. Therefore the main characteristics of the proposed method are:

1. it provides support not only to the EU decision makers on policy formulation and implementation issues, but also to the other groups of the EU policy network as well, such as the various types of influencers and policy analysts, enabling the efficient exchange of information, knowledge and expertise, and also of opinions, positions and proposals, in order to improve their capacity to participate in and contribute to the EU policy processes,

2. it adopts a ‘selective’ approach, focusing on the most knowledgeable and credible people on each topic we are interested in, by using advanced reputation management methods (Li et al., 2009) (see following section 5 for more details),

3. and also focusing on the most relevant documents (such as web pages, blog posts, social media content, online comments, word/pdf documents, collected from various external sources) on each topic we are interested in, using documents’ curation/relevance assessment methods (see following section 5 for more details).

An overview of the proposed method is shown below in Figure 1. We remark that it consists of three main processes: the first two of them crawl at regular time intervals the most relevant external sources of EU policies knowledgeable and credible people, and also of relevant documents of various types, update the corresponding databases of our ICT infrastructure, and also assess their reputation/credibility of the former and the relevance of the latter. These databases are used by the third process, which processes users’ queries (e.g. concerning the most reputable/credible people or the most relevant documents on a specific topic) and presents the results, making use of visualization techniques (Keim et al., 2010).

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1EU COMMUNITY Description of work (2014). http://project.eucommunity.eu
Figure 1: Overview of the proposed method of social media exploitation by government agencies for supporting their policy networks

4. ICT platform architecture

An ICT platform has been designed in order to serve as a technological infrastructure for the application of the above method, and its functional architecture is shown in Figure 2. It consists of three main modules, named as EurActory, CurActory and PolicyLine, which correspond to the abovementioned three main processes.

The first ‘EurActory’ module crawls at regular time intervals various external sources of profiles of people with high levels of knowledge, expertise and credibility in one or more EU policies, such as the databases of EurActiv.Com, various professional registers, social media profiles, etc., and updates the corresponding EurActory database of knowledgeable and credible people on EU policies; also, the capability of self-registration of people who believe that they have good knowledge of one or more EU policies is provided as well. Furthermore this component will perform credibility ranking of these people, based on the following criteria (each of them having a specific weight):

- Self-evaluation: direct user input.
- Peers rating: based on a survey sent to most influential users.
- Participation as speaker in important events on EU policies: through events’ programs uploading, and speakers’ names recognized and credited
- Organization reputation: Google ranking of he/she is affiliated with
- Position ranking (e.g. see EC Org Charts IDEA): based on scale of hierarchy
- Document assessment: results of authored documents’ assessment by their readers
- Proximity trust: level of connection in social media
- Past reputation levels: taking into account reputation in previous months (its stability means credibility).

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2EU COMMUNITY Description of work (2014). http://project.eucommunity.eu
The second ‘CurActory’ module crawls at regular time intervals various external sources of documents related to EU policies, such as websites of EU institutions (e.g. European Commission), relevant media (such as EurActiv, European Voice, EU Observer) and various EU policy stakeholders’ websites, and also social media accounts where relevant positions and opinions are published, and updates the corresponding CurActory documents database. Also, the capability of manually adding a document relevant to an EU policy/subpolicy is provided as well. These documents (with the widest meaning of this term including web pages, blog posts, social media content, online comments, word/pdf documents, etc.) are first related to the most relevant policy topic and subtopics (one document may match more than one subtopic), and then linked to one or more authors in the EurActory people database. Next, for each document its relevance is rated with respect to the above policy topic/subtopic (as one document may match more than one subtopic, it may as well get more than one rating, depending on the subtopic it is considered for). The criteria for this relevance assessment are:

- Author: his/her credibility ranking for the specific topic/subtopic.
- Social Media: is it engaging on social media?
- Quality: is it accurate? Or even valuable?
- Relevance: is it relevant to the topic? Or even timely?
- Endorsement: do you agree on the issues? Or even the solutions proposed? (the last three criteria are rated by the readers, in a rating pop up window)

The third ‘PolicyLine’ module uses the databases of the other two components in order to enable a user to enter a specific policy related topic/subtopic and search for:

1. people with high levels of knowledge and credibility on it - the result will be the top ones in credibility ranking - or
2. For relevant documents – the result will be the documents with the highest relevance assessment in a Policy Line visualization form, which is shown in Figure 3, and includes four columns:

3. In the right column it is shown in which of the stages of the EU policy process (public debate, policy debate, draft, debate, decision, implementation, review) the particular topic/subtopic is.

4. In the central column (second from the left) there are links to various categories of official relevant documents from EU Institutions (e.g. white papers, green papers, Commission drafts, amendments, etc.)

5. In the left column left there are links to various stakeholder positions documents (e.g. from industry federations, NGOs, etc) related to the relevant official documents.

6. In the second column from the right there are links to relevant media analysis documents from EurActiv and other media, which are related to the relevant official documents.

Figure 3: PolicyLine Visualization of documents relevant to a specific topic/subtopic

Based on the above functional architecture of the ICT infrastructure of the proposed method, we proceeded to the design of its technological architecture, which is shown in Figure 4. It includes the following components:

- EurActory: it will include a profile directory of leading experts on EU policies including decision-makers, influencers and analysts.

- Reputation Management Component: it will calculate and maintain the credibility scores of the above individuals.

- Crawlers’ Component: it will crawl both targeted sources (Europa Who-Is-Who directory, the Europa EU Green Papers directory, blogs and news sites with a special interest in EU policy matters etc.) as well as social media (Twitter and LinkedIn) in order to gather and make

available to the platform information about people and documents related with the policy-making processes in the EU.

- Opinion Mining Component: it will not just perform a simple analysis to characterize a document as “positive” or “negative”; additionally it will perform feature based opinion mining and emotional opinion mining in order to determine emotional states like “angry” “sad” and “happy”. It will also include a “troll” detection filter which will reveal user who repeatedly propagates an opinion.

- Policy Modelling/Impact Assessment Component: it will allow the creation and storage in the common database of a topic ontology (set of terms) for a topic under discussion in the EU community platform. The component will also allow the creation of models to simulate, assess and forecast the impact of alternative policy options, based on the public/expert opinion.

- Visualization Component: it will provide an intuitive access to the data crawled, processed, and analyzed by the other technical components. It will consist of three submodules. One for visual analysis of data related to EurActory (persons), one for data related to CurActory (documents), and one integrated component connecting aspects from both data sets.

- Policyline: it will be a web application featuring visualization per policy topic of key documents from influencers, decision makers and analysts plus status of the policy process and gathered opinions emerging. It is an integrated tool combining outputs from the Visualization, Policy Modelling and Opinion Mining components.

- Orchestration Component: it will perform the communications between all the components and the database, being based on a services oriented architecture (SOA).

Figure 4: ICT Platform technological architecture
The above components will be organized in a multiple layers ⁴ (Figure 5), which will allow the separation of the user level (client layer), the level of presentation (presentation logic layer), the level business logic (business logic layer) and the level of data storage (data storage layer). In particular:

1. The user level (client layer) will be responsible for the communication with the users. The data are being processed by the presentation layer, and displayed in the user interface. The user level consists of different communication channels for different devices. EurActory is part of the client layer.

2. The presentation layer processes users’ data and is responsible for the communication of the user interface with the actual application. The presentation layer also contains all communication patterns and triggers the individual components of the lower layer.

3. The level of business logic (business logic layer) performs application logic regardless of presentation and process data coming from the lower level of data storage. All of the individual components mentioned above (with the only exception of the EurActory) belong to this layer.

4. The level of data storage (CurActory) is responsible for the storage of data. The interoperability interface (backend) is responsible for interfacing and data exchange with functional systems, other databases and applications.

Figure 5: Multiple layers’ organization of the ICT Platform

The separation of business logic and data storage layers leads to systems independent of the type and manufacturer of the database. The separation of the levels of presentation and business logic provides an optimal technical solution to multiple presentation modes, such as different types of browser or on mobile devices, such as tablets. This separation also allows the application to be upgraded and reuse parts at low cost. Also, this separation enables us to distribute application

load (load balancing) to different servers, where one server may be responsible for the presentation of the application and the others for the business logic. Finally, different users may generate different presentations of the same application, so it is necessary to separate the client layer from the presentation layer (e.g., EurActory LITE and EurActory FULL are examples of different presentations of the same application).

5. Conclusions

In the previous sections of this paper, interdisciplinary research that has been conducted in order to develop a novel method of social media exploitation in government has been presented, which is oriented towards supporting policy networks. Its theoretical foundation is the extensive research conducted in the political sciences domain concerning policy networks, their importance for modern policy making, and their operation. Based on the conclusions of evaluations of the previous generations of social media exploitation in government, on the analysis of the needs of the EU policy stakeholders, and on the above theoretical foundation, a novel method of social media exploitation for supporting the extensive policy community of the EU has been developed, which however has a much wider applicability for any type of government agency. Also, the functional and technological architecture of the required ICT platform for the application of this method has been designed. The proposed method can lead to a new generation of social media exploitation in government, which is more focused on highly knowledgeable policy communities and networks.

This new generation of social media generation in government (focusing on policy networks) does not aim to replace the previous generations (focusing on the general public), but to co-exist with them and complement them. This is absolutely necessary since for the design and implementation of effective and balanced public policies it is necessary to take into account both the general public and the policy network (if the latter have too strong influence, and the former much weaker influence, then public policies will not be balanced).

Further research is in progress as part of the abovementioned EU-Community project, which is going to evaluate the proposed approach in three pilot applications, which will concern important EU policies:

- Renewable energy (this policy aims to develop sustainable greener alternatives to fossil fuels).
- Innovation strategy (it aims to recover from the crisis through youth- and innovation-oriented growth policies).
- Future of Europe (prepare steps and Treaty options to enable multiple-tiered EU).

These will allow us to assess the value of this approach to the various EU policy stakeholders and policy networks along various dimensions (based on previous research on policy networks – see section 2.1):

- to what extent it assists the EU institutions in collecting high quality opinions, proposals and knowledge from their policy networks?
• to what extent the EU policy stakeholders are assisted in collecting opinions, proposals and knowledge on topics they are interested in, and also in promoting their own?
• and in general to what extent it supports policy networks?
• to what extent it is useful for sensing changes in their external context, and for designing and implementing the required policy changes?
• does it increase the quantity and quality of interactions among their actors?
• does it improve their adaptability to context changes (i.e. facilitates changes in their composition as a response to changes in their external context)?
• does it improve the efficiency and effectiveness of EU policy processes?

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Redefining Digital Government

Reaching beyond Myths, Unsustainability and the Digital Divide

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Abstract: In this article we aim to define a subject-centered perspective on digital government utility and propose research considerations how to address such perspective. Based on a case study of Slovenia we summarize arguments why in our view digital government research and development endeavors so far missed to utilize the potential of ICTs for generating sustainable change to the government of juro-political societies and argue for a system that would utilize ICTs for building towards a governance system that was never ever possible in human history so far.

Keywords: digital government, sustainable non-bureaucratic government, liquid democracy, unsustainability of digital government, myths of digital government

What do we want digital government\(^1\) to achieve at all?

Is it about institutional change – with the goal to reduce the amount of bureaus and institutions? Is it about providing cheaper government – by for example reducing the tax burden? Or, is it about providing a better government, which would result in less disputes, speedier court proceedings, happier people?

The community of researchers focusing on digital government (dGov) is indeed a colorful potpourri of minds from heterogeneous backgrounds addressing the many functions of government of juro-political societies, aiming at their improvement by means of ICTs: some aim at improving government by developing new models for increased participation and transparency, some develop technical artifacts to support latter, others engineer front- and back-end systems for remote self-service access to the functions and information of government bureaus, while again others observe the effects and implications of ICTs in the government domains, or develop models and metrics to assess these.

The lowest common denominator of all these efforts is the belief that ICTs can change government for the better. In search for a common goal of these shared efforts however, the seeker

\(^1\) We shall follow the example of Veit & Huntgeburth (2014) and use the term digital government (dGov) throughout this text, referring to the shared research and development (R&D) sphere containing e-government, e-democracy, e-participation, open government, open government data, etc., etc.
might easily find itself facing a jungle of heterogeneous artifacts rather than a system that would follow a clear, articulated vision.

With this article we aim towards searching for foundations for such systematic approach to dGov. We shall articulate the need for a technically concise framework as the basis for a coherent future research agenda for dGov, and outline the implications that endanger the sustainability of modern digital government R&D.

In section 1 we shall develop three different perspectives on how to categorize dGov based on its utility of different stakeholder groups and seek possibilities for its modularization and structure. In section 2 we shall explore the founding myths and the future potential of modern dGov artifacts from their sustainability perspective. In section 3 we shall discuss the implications of the digital divide on the attempts for modularization and structure in future dGov.

1. A search for the “Governing-Machine”

Digital government can be evaluated from three viewpoints – from its utility for surveillance, from its utility to support existing bureaus, and from the perspective of citizens uninvolved in active government affairs. We shall use the term subjects to refer to such uninvolved citizens, such as it is used in the context of the social contract theory, and in the jural context, respectively.

1.1. The three perspectives on dGov

The first perspective looks at dGov from its utility for secret services and purposes of surveillance. Waiting in the airport security queue in a British airport, gazing bored around the venue, one will notice security cameras mounted on the ceiling that have rotating LED-lights around the lens. Staring at these lights for a couple of seconds, wondering why they are rotating, Her Majesty’s immigration control might have filed a perfectly aligned picture of one’s face for further tracking of one’s movement through her territory. When checking-in into a hotel in Slovenia, one’s lodging is immediately reported to the local police station; every crossing of the border, every card payment, every interaction of one’s mobile phone with the base station can be legally accessed by surveillance agencies. Access to computer-readable and inter-link-able data about one’s habits, interests, behavior, social links, etc. through social-network web sites, ISPs, web browsers, operating systems, etc., is then all part of a category of dGov systems which provide utility to surveillance agencies.

Characteristic for this category of systems is that their aim is to reduce the amount of loopholes for subjects to evade their duties, or to escape prosecution respectively. In this category then belong dGov systems that keep track of tax duties, enable self-service tax returns, oblige businesses to use cash-desks that send all transactions immediately to the finance authorities², systems that keep track of one’s movements in the country, track financial transactions, etc.

The second perspective is dGov’s utility to the bureaus of existing branches of the state – the legislative branch, the judicative branch, and the executive branch. From this perspective, dGov provides on one hand systems for internal needs, and on the other systems for interaction with state subjects. While the internal systems provide utility on the inter- and intra-departmental level, out-bound systems “aim to improve the relationship between government and society in such a way that

²Such is for example mandatory in Croatia.
government is perceived as more responsive, accessible, transparent, responsible, participatory, efficient, and effective than before” (Veit and Huntgeburth 2014, 1).

While surveillance and revenue-gathering systems from the first category are required to work efficiently in order to optimize cash-flow towards the state, and curb troublemakers, respectively, dGov systems on the relation between government and (civil) society do not necessarily subject to the same scrutiny. The rationale for their existence and maintenance can often be found in the principles of Parkinson’s law (1955), or public-choice theory (cf. Downs 1967) respectively – i.e., they are often really only an end in itself. (Not same is true though for such internal dGov systems, which serve internal data needs for data storage and communication, such as various registries and secure delivery infrastructures.)

Digital government systems belonging to this second category would be for example e-participation portals and online-voting systems, which aim to increase the legitimacy of the political system, state-provided open data catalogues aimed at increasing trust, electronic delivery services for the exchange of information between government agencies and / or professional stakeholders (such as lawyers or notaries), electronic land registries, business- and population-registries, etc. All these systems thus are associated with supporting the social functions of public-sector bureaus, maintaining their legitimacy, or supporting their expansion into new bureaucratic territories (to use Downs’ (1967) terminology).

The third perspective on dGov is focused on its utility to subjects of the juro-political society. We define these subjects as those individuals who are subjected to government, the supposed beneficiaries of the social functions of the state’s bureaus, the taxpayers, the small and medium enterprises, the civilians, the immigrants. This category contains individuals who are, as Downs (ibid., p.244) describes, “rationally ignorant of most political and economic matters”. These subjects interact with state bureaus only when needed or forced to. They are grateful if the interaction with the state is intuitive and logical, if taxes are moderate, if law enforcement agents are efficient and understanding, if their requests are heard and their disputes resolved fast and fair.

1.2. The third perspective: in search of a governing machine

Automation has coined the modern Western civilization and enabled its superior role in world economics for centuries. The industrial society based on structured methods of production and organization, as well as a structured management of the workforce where such was still required.

The transformative effects of rationally structured processing can be easily seen in the societal transformation during the industrial revolution: The pre-industrial British workforce, Zuboff (1988, 31ff.) argues, was largely unreliable, untimely, and inclined to escape to the grog shop or alehouse during work time. Mondays were traditionally off for the British working class to celebrate the holy Monday as a de-facto day of leisure. The dependence of capital owners on the skills and know-how of the workers was the working class’ ace in the hole. Mechanization and automation was thus born from the class struggle between capital owners and the working class for the control over production. Modern computer-aided design and manufacturing, and the fully-automated manufacturing respectively, are then nothing but the continuation of the capital owner’s struggle for independence from the fallibilities of the imperfect and costly human body and mind.
The increasing growth of public-sector bureaus and the resulting rising dependency of subjects on the power and privileges of a growing class of public-sector agents (civil servants, politicians,judicators, public services (health, education, etc.) providers) in modern states does present a similar conflicting situation between bureaus on the one side and their financiers, the uninvolved state subjects on the other. Latter’s struggle for reducing this dependency forms thus a legitimate ground for seeking alternatives to automatize and replace social functions addressed by these bureaus. As in the case of the pre-industrial manufacturing processes, a lacking definition of abstract-able structure in the inherent principles of bureau’s social functions is hindering an optimization and potential mechanization of their utility. Thus, because we don’t know how to structure the alleged utility of the individual bureau’s social function(s), we cannot efficiently disintegrate the bureau and optimize its social-function-providing functionality by technical means.

As an attempt to introduce computable structure to support the optimization of delivering social functions we studied the computability of jural relations (Paulin 2013), where we abstracted jural relations on the relation between the sovereign (i.e. the state) and its subjects to a complex network of eligibilities, which enable individuals in a juro-political context to call upon jural rights with regard to the specific context of the situation. It goes without saying that all these eligibilities base on some kind of information / data, which was produced by other subjects with appropriate eligibilities to do so. Thus, a complex network of eligibilities is what shapes the core of any government fiat system.

Building upon the hypothesis that any eligibility bases on information, which in turn can be structured and formatted within the digital realm, we (ibid.) described a model for computing eligibilities – there called Self-Service Government (ss-Gov), based on relational algebra and moderated access to structured jural facts – i.e. molecular data from which eligibilities can be derived by means of computation. As a method to govern self-service access to data, we introduced the concept of Constellation-Based-Reasoning (CBR) as a scaffolding for creating, storing, retrieving, and changing jural facts based on which eligibilities of jural subjects can be determined. This methodology can be compared to a key opening a pin-tumbler lock, where the key due to its specific shape moves the pins into the right constellation, which allows the lock to be opened. The lock in this metaphor defines the constellation and definition of the required data (defined as a relational set), which must be satisfied by the key, i.e. the data describing a stakeholder and/or context in a situation, to unlock a particular eligibility in a given context.

Thus, ss-Gov enables a model of government in which eligibilities (e.g. rights) are not obtained in form of credentials from state authorities through administrative proceedings, but are rather determined by means of CBR. The mathematical basis for the determination of eligibilities thus enables homogeneous, standardizable technical storage, rule-based control to generation of- and access to the raw jural data, and hence its storage as structured data in digital systems.

This approach might serve as a core foundation for further research towards reorganizing the delivery of social functions that are currently covered by public-sector bureaus.

2. Digital Government Review: From Myths to Unsustainability

Nothing less than a revolution of epic scale was the promise conveyed by politics and public administration alike in the course of national digital government reforms. The so-reformed governments were to be faster, more intuitive and more effective, more inclusive and more
participative - a hype emerged that drove governments throughout the world to develop and implement digital government policies and artifacts.

### 2.1. The myths of digital government

As relevant for constructing the hype for reaching a new and better government, Bekkers & Homburg (2007) identify four myths - four *hymns to progress, utopian visions, unfulfilled or unfulfillable promises*, as they define them. Myths, they argue, “mean more than falsehoods; rather, myths are [...] (1) powerful stories that inspire people to strive for realization of issues that matter, whatever the cost, and (2) discourses in which specific aspects are highlighted and revealed at the expense of other aspects that are (deliberately or unintentionally) concealed.” No government, they argue, “can resist the impact of modern ICTs”, which brings policymakers, politicians, bureaucrats and consultants to “tell stories about the nature of policy problems and how these problems should be tackled”. Such *bricoleurs* (Levi-Strauss in: ibid.), as they term these storytellers, “compose heroic narratives to inflict changes in ways of thinking and doing”. The promised innovations however “are not necessary implemented immediately (if at all); nor does the implementation necessarily follow the story lines exemplified in policy documents.” The “hopes for immediate implementation and fear of lagging behind”, they argue, “make for powerful techno mania”.

The *purified image of a new and better government* is the first such myth, which promises a computerized administrative machine “that is responsive, client oriented, and cohesive”. This myth announces a new form of technology empowered government which “makes life better for citizens and businesses”, which will provide electronic services to deliver what people really want. As Bekkers & Homburg (ibid.) note, this myth was a core driver behind the governmental *one-stop-shop* approach, where a single point of access is available to electronic services and information offered by different public authorities (Wimmer 2002).

Alas, as Bekkers & Homburg (2007) emphasize, one-stop-shops require coordination of a multitude of heterogeneous back-offices within the public administration and “the integration of several information domains, each with its own legal framework, its own information systems, its own data definitions, its own routines and procedures, its expertise and experience, and its own frames of reference”. The result of the attempt for progress is a “battle of back-offices” which prevent the development of a sustainable and goal-oriented dGov system-of-systems.

The unconditional belief and trust in the use of ICT by the public administration as a driver and core enabler for *technological progress and instrumentality* is a second myth Bekkers & Homburg (ibid.) describe. The information society “is seen as developing into an open and decentralized society” as part of a “revolution in progress that cannot be missed. The only question is how to respond to it.” According to this myth, the public administration “has a moral duty to use the most advanced ‘tools’ to *reinvent government*”, due to which institutional change takes place. This myth however, Bekkers & Homburg (ibid.) note, contradicts findings that the introduction of new technologies in the public sector “very often strengthens the existing frames of reference, power relations, and positions within a policy sector”.

The third myth is the presumption that dGov realization bases on *rational information planning*. Thus, most of the policy documents, which Bekkers & Homburg (ibid.) studied, focused on high-level goals rather than on defining clear implementation strategies and realizable technical artifacts. When it comes to implementing these visions, however, challenges in the integration of heterogeneous back offices must be approached, such as standardization and consolidation, which
fuel inter-organizational tensions and conflicts. Heralding strategic planning while ignoring the implications of inter-organizational interoperability, Bekkers & Homburg (ibid.) argue, has given rise to the myth of rational information planning.

Digital government policies and strategies aim to deliver to an ideal, empowered, Omni rational citizen, who “knows his or her preferences, is able to master both bureaucratic and ICT skills, and actively engages in conversation with government agencies” (ibid.). This myth of the citizen as empowered consumer of government services is crucial for the legitimacy of dGov reform strategies, as without such imagined citizen, who allegedly demands reforms, dGov might perhaps not be required at all. With the aim to please this optima-forma citizen, a number of digital government artifacts have been developed to support the activities of public-sector bureaus. Alas, a widely-adopted understanding is that neither citizen nor state accepted these artifacts as planned: thus, Cordella (2007; Cordella and Iannacci 2010), partly referring to Todd Ramsey, IBM’s head of government services (The Economist 2000), claim that 70-87% of all dGov projects were failures; studies on open government data reveal a careless bureaucracy (Adair et al. 2007; Paulin 2010), and studies on the acceptance of state-driven electronic identity systems show as low as 0.1% user-update (Kubicek 2011; Rissanen 2010).

2.2. Unsustainability of modern digital government

Digital government reforms aimed at tackling the issues of growing needs for interaction by the state. Through the introduction of dGov technologies the state should have become – aside from the ambiguous “better”, more responsive, more inclusive and more efficient in terms of handling citizen interactions. How then, can we measure the outcome of dGov?

To analyze whether or not dGov reforms brought the promised significant benefits to citizens, we explored (Paulin (forthcoming (a))) the financial and operational statistics of the Slovenian government, its courts, and the national social insurance agency. Slovenia is a central European country with a very high human development index equal to Finland (and higher than the UK) as of 2013 (UNDP 2013), a member of the European Union, NATO, and OECD. According to dGov surveys, when it comes to e-readiness rankings, Slovenia is found constantly amongst the top in its class; thus, in 2009, it was amongst the top-five in Europe (Capgemini et al. 2009; The Economist 2009), while until 2012 it lost its top rank on the European level, but remained second on the level of Southern Europe (UN 2012). After its succession from Yugoslavia in 1991, Slovenian public administration underwent a transitional period until 1999 to catch-up with Western European standards. Between 2000 and 2003, further reforms took place to adjust the Slovenian administration, judicial and legal system to reach the requirements for joining the EU, including a civil servants reform. (Pinterič 2010a). Until 2006, Slovenian digital government matured (Pinterič 2010b) and finally reached levels as noted before.

In the aforementioned study we compared financial and performance indicators of Slovenia between the years 2002 and 2011. This timeframe begins with a period in which Slovenia had already left behind its transitional period with major political and administrative reforms, but still deployed considerable extracurricular effort to adjust its system for the accession to the EU, as well as to analyze the requirements, plan, and develop its major dGov systems. The ongoing global crisis of the economic system that introduced harsh austerity measures hit Slovenia only in 2008 (Pinterič 2013) – until then the major dGov projects were already well positioned and functioning. Our study showed that the introduction of dGov in Slovenia had no decreasing effects on the
expenses of the state, nor was there evidence of an increase in efficiency of its judiciary system. On the contrary – the study found on all observed levels increases in the expenditures for human resources, even in years after the recession hit Slovenia. Until the year of the recession (2008) state expenditures increased significantly on all observed levels, with particularly strong increases between the years 2005-2008.

At the end of the day, the introduction of automation to the domain of the res publica failed to yield effects that would be comparable to the ones automation had on manufacturing, transportation, communication, finance, or trade. There seems neither to be hope for the future, as the research on unsustainability of dGov (Paulin 2014a; Paulin (forthcoming (a)); Paulin 2013) suggests. In our past research (ibid.) we identified three hazards of technical dGov artifacts, which imply the unsustainability of latter:

The first hazard is the implied expiration date of the introduced systems, which base on the requirements of the particular context. At the design-time of a dGov system the only then-valid jural and organizational context can be taken into consideration and hence, changes in law or organizational structure of the stakeholders will unavoidably render such system obsolete. The life-span of such systems can be as low as only a couple of years (ibid.).

Monopolization and exclusion is the second sword of Damocles endangering peace in the dGov world as a whole. When politicians and civil servants think up dGov artefacts, they dream-up their functionality without defining technically directly implementable specifications. It is thus up to system developers to craft instantiations based on these functional requirements, which then impose architectural constraints how these systems can be used (“code is law” (Lessig 2006)).

Tensions and conflicts emerge under circumstances where legislators enable the coexistence of many providers of the same type of dGov-system. Such situation fosters the emergence of clans (Kubicek and Noack 2010) which control national monopolistic solutions (cf. Paulin 2012) based on the principles of useful illegality (“brauchbare Illegalität” - Luhman in: Walter 2011, 44). The existence of non-conformant outsiders to such “purveyors to the court” is then simply ignored and excluded from deals with the government.

The architectural implications of so-created dGov systems further imply the hazard of legal certainty, which emerges from the notion that code is law. In societies that adhere to the rule of law, the civil service is obliged to operate in accordance to the principle of legality, which means that every action and every decision made by the state must be explicitly defined by law – this applies both to stated decisions, as well as the procedures that lead to them.

Digital government however challenges the principle of legality, as it delegates government behavior to machines. Bovens & Zouridis (2002) argued that from the perspective of equality before law, dGov (there: system-level-bureaucracy) “may be regarded as the zenith of legal rational authority [as] thanks to ICT, implementation of the law has been almost wholly disciplined” (ibid., p.181), if it was not for the issue regarding the delegation of discretionary power to a new class of politically unauthorized people, such as system designers, legal policy staff, and IT experts (ibid.).

However, it is nearly impossible for modern dGov systems to fully comply with the principle of legal certainty due to an implied complexity, which requires a deep professional understanding from both jurisprudence and IT. Already seemingly minor changes in the outbound interfaces of dGov systems do breach the principle of legality if not conducted with proper legitimation (which usually won’t be given). Thus for example, an advanced citizen who would craft a system for automated interaction with a web-based dGov-system, relying on latter’s digital interfaces
(already a simple dynamic web page is a digital interface!), would be forced to reengineer his system with every seemingly trivial re-design of the graphical user interface or update of the dGov system's front-end. The legal certainty that the provided digital interface would change only after a legitimate legislative process is thus not given.

At the end of the day, in the best case time renders dGov artifacts into costly ruins in the dGov-jungle, while in the worst case, they evolve into intransparent to-big-to-be-changed sinewares over which future politicians and lawmakers will have had lost any control. Thus, dGov R&D is at risk to end up in a cul-de-sac, being neither able to deliver tangible improvements of government to human society, nor advance its scientific progress due to a lack of clear structure of its research goals (continuing to contribute to a jungle of unsustainable and fundamentally heterogeneous technical and conceptual artifacts can hardly be deemed structured (Veit and Huntgeburth 2014, chap. 4.1.2)).

3. Sustainable non-bureaucratic government vs. the digital divide

In a later publication (Paulin 2014b) we elaborated the concept of Sustainable Non-Bureaucratic Government (SNBG) as a confluence of CBR and Liquid Democracy (LD) – latter being a self-organized way of collaborative decision-making in which decisions are made by means of a mechanism of revocable transient delegation of power (ibid.).

In the SNBG vision, LD is deployed for collaborative assignment of eligibilities, while at the same time the LD mechanism is governed by means of CBR. Thus, a closed-circuit system is created in which the rules of the system (i.e. the CBR locks) can be defined and managed collaboratively by means of LD, whereby characteristics of the collaborative decision-making through LD (locks regulating the transitivity, locks regulating the threshold for a communal decision to be accepted, etc.) are regulated by the very same system of CBR locks. SNBG thus presents a model infrastructure for a structured approach of technically sustainable dGov artefacts. It has been designed to enable concise planning and enables a multi-layered approach to designing and developing dGov artifacts that would disable unsustainability hazards as outlined above.

The multi-layered access is described as a five-layer technology stack (ibid.). The first layer is the basic communicational infrastructure, such as e.g. the modern Internet. The second layer stores content-agnostic jural facts, based from which eligibilities are calculated. The third layer describes the context and contains rules of access to layer#2 data. The fourth layer would provide technology to plan and describe procedures and processes by means of modeling tools. The fifth layer, finally would provide artifacts for user-friendly access to layer#2 data. Access to layer#2 is then possible either directly on a data-level (Paulin 2013, 1776) – thus, on layer#2, or through layer#5 artifacts. Latter should then cater to various needs – they can be made available in form of programming libraries or web services to be used by software developers to build complex applications, or stand-alone applications for end-user access to the data. These artifacts could then be provided by commercial enterprises, or they could be community-subsidized / sponsored projects. One way or another, the crucial access to the data itself would remain unaffected.

This paradigm follows the established principles of Web technologies. As in the case of the Web, which is an open and clear protocol (HTTP) providing access to a network of Web servers over the Internet, SNBG would provide a clear protocol for accessing a network of ss-Gov data registries, which would then host the layer#2 core data, access to which would be governed by layer#3 rules. Like in the case of the Web, where commercial, as well as community-sponsored (sponsorship
through financial donations and/or voluntary labor) actors provide the tools, technologies and labor (servers, browsers, standards and technologies for the description of content, developer IDEs, etc.) to create and access Web contents, same could apply to SNBG, which could rely on a global community of providers to build the platform for governing the future of human civilization.

But what about the digital divide – would such tech-heavy system not exclude significant shares of population from accessing government services?

The implications of the digital divide are generally seen as “one of the main barriers to migrating administrative and political processes to the internet” (Veit and Huntgeburth 2014, 33). However, while we do not dispute that the digital divide hinders certain individuals to use ICTs to their advantage, this does not necessarily present a reason to restrain progress. In the context of government, the digital divide is merely one of many obstacles that hinder individuals to interact with government to their full advantage. In our opinion a much more significant hindrance is the jural divide – i.e. the divide between those who are knowledgeable in law, and the vast majority of the population who is not. This jural divide exists ever since law exists and with an increased complexity of the jural framework (a continuous stream of ever-changing laws and regulations), the dependency of lay people on jural experts becomes more and more strong.

The socially accepted way to bridge the jural divide is the provision of means for legal counseling and representation. As legal acts and court rulings are in general public, everybody is supposedly able to get access to knowledge about the law. Naturally, most people won’t be able to utilize this opportunity to the same extent as a lawyer or legal scholar can. A similar bridge can be provided for interaction with a SNBG technical system, where the majority of people would approach studied professionals to interact with the layer#2 data on their behalf in order to adjust their jural status. Professional consultants would draft layer#3 semantics and regulations based on the visions of politicians, and agencies would provide their services – either commercially, or community-subsidized, to aid individuals in their interaction with the state. And like in the case of law, also here access to the knowledge and information would be available to non-professionals without restrictions.

What then about LD? Does liquid democracy not discriminate against those, who have no active access to technology?

The principle of liquid democratic decision making lies in the ability of each individual to delegate its voting power to some other individual of trust. The given delegation has no time-span – thus, it is given for eternity, it is however revocable at any time. Through the feature of transitive delegation, a network is created with few very strong nodes whose decision then has significant impact in the communal decision-making process.

The delegation in liquid democracy is thus a matter of personal trust rather than political preferences. As such, it abstracts into digital structure age-old empowerment principles, as they naturally exist in families, tribes and clans. Individuals on the other side of the digital divide – like old people, or people from socially underprivileged circumstances, are thus not deprived of their political participation in a broader community, but rather empowered, as they can delegate their power to those people, whom they truly trust, rather than abstaining from political participation entirely.
4. Conclusion

What then, do we want digital government to be?

In this article we summarized the myths of digital government (dGov) as explored by Bekkers & Homburg (2007), and the reasons for its unsustainability (Paulin 2014a). We argued that dGov utility needs to be evaluated from three heterogeneous viewpoints: its utility for surveillance agencies, its utility for the internal and external functionality of state bureaus, and its utility from the subjects’ perspective. The latter perspective in our opinion is overall underrepresented, with the general focus of the dGov research communities seeming to be on satisfying requirements of the second category, i.e. the internal- and external relations of existing state structures, while technological progress excelling in the first.

As a basis for further technical research and development towards addressing the needs of the third category, we summarized our research towards Sustainable Non-Bureaucratic Government – SNBG (Paulin 2013; Paulin 2014b). We argued that this model provides a first definition of a sustainable “third-view”-dGov platform, on top of which a novel ecosystem of services and economic value, similar to the value implied in the services of the jural domain, can be build. To further fortify its feasibility, we argued how SNBG would contribute to neutralize the implications of the digital divide in a similar fashion as e.g. the jural system is able to surpass obstacles for its non-professional stakeholders.

Finally, we invite the dGov research communities to vest into further studies towards SNBG and the “third perspective” on dGov in general respectively.

References


**About the Author**

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The author is a researcher at the Technical University of Vienna, Faculty of Informatics and Doctor of Science candidate at the University of Maribor, Faculty of Electrical Engineering and Computer Science. His DSc dissertation develops the model of *Sustainable Non-Bureaucratic Government* as briefly presented in the present paper, as well as describes a set of pioneering technical artifacts for its instantiation. The author’s main research interest is centered on developing a coherent, technically sustainable system for self-managed government of juro-political societies. His work demonstrating the unsustainability of e-government was awarded the best paper award by audience at the *Central and Eastern European e-Gov Days 2014*. 
Evaluating Green Smart City’s Sustainability with an Integrated System Dynamics Model

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Abstract: Smart cities have evolved from their initial web forms in early ‘90s to their recent and preferable ubiquitous and eco-friendly approaches and various exemplars can be observed around the world. To this effect, the eco-city or green city approach has been introduced and concerns an ideal urban paradigm, in which information and communications technologies (ICT) are combined with energy consumption, waste and traffic management and other practices in order to enhance urban sustainable development. This paper utilizes system dynamics (SD), as a means to capture and evaluate the sustainability performance of a green city.

Keywords: smart city, green city, sustainability, system dynamics, eco-city

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Urbanization raises steadily and recent reports (UN-HABITAT, 2008) illustrate that half of the global population lives in urban areas, while United Nations’ projections reveal that urban population will exceed 6.3 billion by 2050 (United Nations, 2012). This phenomenon generates great challenges for urban planning and yields increased requirements for city sustainability (Chao & Li, 2011). On this ground, the development of green, ecological cities has been introduced as a means to support sustainable urban development within a societal, economic, environmental and demographic context. The ecological city or “eco-city” idea was first introduced by Urban Ecology, an organization founded by Richard Register in 1975 (Roseland, 1997), which concerns a city that ensures the well-being of its citizens via a holistic urban planning and management approach with the aim of eliminating waste and emissions.

Smart cities on the other hand utilize technology in order to improve urban everyday life. Information and Communications Technologies (ICT) in urban spaces for instance, simplify inhabitants’ transactions and automate information flow across the city. According to (Anthopoulos & Fitsilis, 2013) the term smart city is not used in a holistic way describing a city with certain attributes, but is used for various aspects which range from mesh metropolitan ICT environments to a city regarding the education (or smartness) of its inhabitants (Anthopoulos & Fitsilis, 2013), (Komninos, 2002). Smart city was originally introduced in the Australian cases of
Brisbane and Blacksburg. Smart city was later evolved to (a) urban spaces for business opportunities; to (b) ubiquitous technologies across the city; and later to (c) ICT solutions for ecological enhancements - such as energy consumption, waste and traffic management - named eco-city or green city. A classification and analysis of the alternative smart city approaches (Anthopoulos & Fitsilis, 2013) illustrate that eco-city/green city appears to be the preferable approach.

An eco-city is a synthesis of different complex subsystems that need to be coordinated in order to deliver the desired outcomes. Additional research difficulties appear due to the lack of analytic tools that can capture the nexus of urban ecological factors and systems, and assess their development both in terms of environmental impact and business growth.

In this order, this paper aims to answer the following question: how can a green city be evaluated regarding its sustainability within a complicated nexus of social, economic and cultural factors? This question is critical since smart cities appear to migrate to eco-city approach, while many cities adopt solutions that aim to enhance urban environmental capacity. However, this phenomenon has to secure its success and policy/decision makers have to adopt the appropriate solutions for monitoring and assessing the relationship between environmental impact and cities’ growth.

The rest of the paper is organized as follows. Section 2 contains the respective literature review. Section 3 introduces the proposed System Dynamics (SD) model, whereas Section 4 returns the results of scenarios simulation analyses along with a short discussion, recommendations and limitations based on the results related to the environmental impact of applied policies towards green city. Finally, the last Section 5 contains conclusions and some future thoughts.

1. Background

Urban sustainability has attracted attention quite early (Table 1). Banister et al. (1997) identified significant relationships between energy consumption in transportation and the physical characteristics of the urban arrangements (i.e., city size, population density etc.). Further, Rotmans et al. (2000) proposed an integrated city planning tool that can capture the nexus of the environmental, socio-cultural and economic factors that influence the development of sustainable cities. Under this context, Evans & Marvin (2006) stressed the complexity associated to the issue of urban sustainability. At a greater extent, Kennedy & Hoornweg (2012) endorsed international initiatives towards urban sustainability and encouraged the application of a comprehensive “urban metabolism” framework (Kennedy et al., 2007) for assessing urban environmental impact.

Solid waste management in cities (Davoudi & Evans, 2005; Asase et al., 2009; Kaseva & Gupta, 1996; Baud et al., 2001; 67; Oakley & Jimenez, 2012) and of greenhouse gas (GHG) emission control (Ramaswami et al., 2012; Reiter & Marique, 2012) are also of cardinal interest. (Li et al., 2011). Furthermore, various modeling tools have been introduced (Barredo, 2004; Vancheri et al., 2008), while Bojórquez-Tapia et al. (2011) proposed a mixed GIS and multi-criteria decision making tool.

Limited studies illustrate ecological cities (Ecocity Builders, 2011) and mainly refer to (i) existing urban transformation to eco-city, or (ii) eco-cities from-scratch in China, South Korea, United Arab etc. Eco-cities initially appeared in literature with “Eco-city Berkeley” (Register, 1987), while more than 174 cities were accounted by (Joss et al., 2011). The World Bank, launched a corresponding strategy (The World Bank, 2000) and supports initiatives such as the Sino-Singapore Tianjin Eco-City (The World Bank, 2009). Moreover, the “Eco2 Cities” initiative followed, where qualitative
and quantitative indicators in eco-cities assess the added value and the financial benefits (The World Bank, 2010). Additionally, Li et al. (2011) evaluated the eco-city progress paradigm in China and highlighted the prominent role of low-carbon eco-city with the strategic planning framework of the Tianjin eco-city. Furthermore, Wu et al. (2011) recommended the incorporation of carbon footprint into the least-cost planning of eco-city schemes.

On the other hand, the smart city domain recognizes a particular approach, which is named eco-city or green city (Anthopoulos & Fitsilis, 2013) and concerns the capitalization of the ICT for sustainable growth and for ecological protection. This approach has been followed by many cases New Songdo (South Korea), Tianjin (Singapore) and Masdar (Abu Dhabi), Amsterdam etc.

Forrester (1974) applied SD for sustainable urban development and showed the interdependencies among social, ecological, economic and other subsystems. Existing SD modeling approaches for eco-cities are limited and refer to independent subsystems or modules and ignore their interrelations (Struben & Sterman, 2008). Accordingly, Chen et al (2006) assessed emission policies in Taipei with an SD scenario, while Wang et al. (2008) leveraged the SD approach to examine the economic, social, and environmental sustainability of transportation systems. Other approaches examine water, transportation and emission control in the urban space ; Guan et al., 2011; Krajnc & Glavič, 2005; Zhang et al., 2008; Trappey et al., 2012; Xu & Coors, 2012).

### Table 1. Brief Taxonomy of the Existing Research

<table>
<thead>
<tr>
<th>SD</th>
<th>Ql.</th>
<th>Qn.</th>
<th>References</th>
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<tr>
<td>Urban Growth Dynamics &amp; Sustainability</td>
<td>X</td>
<td></td>
<td>Han et al (2009); Guan et al (2011); Xu and Coors (2012)</td>
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<tr>
<td></td>
<td>X</td>
<td></td>
<td>Rotmans et al (2000); Evans and Marvin (2006); Ecocity Builders (2011); The World Bank (2009); World Bank (2010); Kennedy and Hoornweg (2012); Lehmann (2011); van Bueren and Heuvelhof (2005)</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td></td>
<td>Barredo et al (2004); Vancheri et al (2008a; b); Bojórquez-Tapia et al (2011); Li et al (2011b); Gülen and Berköz (1996); Ho et al (2002); Fung and Kennedy (2005)</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td></td>
<td>The World Bank (2009)</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td></td>
<td>Banister et al (1996)</td>
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<td></td>
<td>X</td>
<td></td>
<td>Li et al (2011b); Ramaswami et al (2012); Kennedy and Hoornweg (2012); The World Bank (2009); Cao and Li (2011)</td>
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<tr>
<td></td>
<td>X</td>
<td></td>
<td>Wu et al (2012); Fung and Kennedy (2005)</td>
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<tr>
<td></td>
<td>X</td>
<td></td>
<td>Zaman and Lehmann (2011); Baud et al (2001); Kaseva and Gupta (1996); Asase et al (2009); Davoudi and Evans (2005)</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td></td>
<td>Oakley and Jimenez (2012)</td>
</tr>
<tr>
<td>Energy</td>
<td>X</td>
<td></td>
<td>Feng et al (2012)</td>
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<td>Anthopoulos and Fitsilis (2013); Ramaswami et al (2012); Kennedy and Hoornweg (2012); The World Bank (2009)</td>
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<tr>
<td></td>
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<td>Banister et al (1996); Reiter and Marique (2012); Nijkamp and Perrels (1994)</td>
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</table>

Symbols: SD for System Dynamics, Ql. for Qualitative, Qn. for Quantitative
Table 1 presents a synopsis of the matching eco-city sub-systems with relevant research efforts and their relation to SD. SD is a simulation methodological tool which is appropriate to analyze and understand the development and the behavior of complex systems over time. Originally, the tool was used to examine the instable employment environment in General Electric (Forrester, 1961). Nevertheless, over the years the SD tool was employed to capture and simulate diverse scientific and engineering systems (Forrester, 1969) and as a decision supportive tool (Roberts, 1978).

The core elements of SD modeling are feedbacks (loops); stock and flow structures; and delays (Sterman, 2000). Feedbacks are necessary because systems rarely exhibit linear behavior due to the interactions among the physical and institutional elements of the systems. Feedback structures are fundamental because they capture the real patterns or modes of systems’ behavior as they dynamically evolve in time. Additionally, the dynamic behavior of a system arises when inflows and outflows are accumulated into stocks. Stocks provide the system with memory, thus enabling the disequilibrium dynamics in systems (Sterman, 2000). Finally, delays are necessary to represent the time intervals between the desired and the actual state of a system under study and thus render it with instability (Sterman, 2000). However, further analysis of SD is beyond the purposes of this paper.

2. Research design and methodology

In an attempt to answer this paper’s question, an SD model is developed, which can capture eco-city components and interrelations. The SD analysis that was followed adopted the stages described by (Sterman, 2000): (a) the model of an eco-city was conceptualized; (b) hypothesis and simulation model were formulated and the structured model was validated; (c) a scenario was simulated. The main concern was to capture the subsystems that have the greatest environmental impact on the eco-city.

The formulation of the proposed model was based on the study of (Ho & Wang, 2005) about the sustainable development of the Hsinchu Science Park in Taiwan, while data was used about the Tianjin Eco-City in China in order to conduct simulation analyses. The testing of the model was performed based on sensitivity analyses and behavior reproduction of the system. Model’s assessment and performance measurement was based on simulations’ execution for a fifty year prediction period.

2.1. Causal loop diagram

Figure 1 concerns the appropriate causal loop diagram and illustrates the correlation of the factors and the variables that specify the behavior of the reviewed conceptual eco-city. Households and population density are positively related to the population increase; the solid waste subsystem is loaded as the population increases. The proposed system calculates produced waste per capita. Moreover, the industrial subsystem contributes to energy consumption and to water pollution and a respective reinforcing loop via the business subsystem was considered. Additionally, workforce is divided between the industry and the service sector. Furthermore, service sector is incorporated in the overall business system. Water consumption is made by both the city residences and the business sector. The environmental emissions was added accordingly. Finally, an assumption was made that the population and the business sector consume electrical energy through the respective reinforcing loops.
The causal loop diagram indicates that the government policy can create favorable conditions, which in long run can lead to urban sustainable development and to enhanced financial benefits for inhabitants. On the other hand, inadequate government policy restricts city’s sustainable growth potential.

2.2. Stock and flow diagram

The entire respective stock and flow diagram of the conceptual eco-city is exhibited in (Figure 2). The proposed SD model was developed with the simulation software Powersim 2.5c (Powersim, 1996) and contains: 76 arrays and scalars; 9 levels; 48 auxiliaries; 19 constants (control variables); 86 links; 17 flows; 9 static objects, and 1 dynamic object.

A set of subsystems comprise the proposed SD model. First, the Population subsystem contains a stock variable that calculates the annual population change according to (Malthus, 1978). The model describes the net global population increase and it was adopted due to the lack of any particular data through the equation $N_{t+1} - N_t = N_0 \times e^{at} \times (e^a - 1)$, where $N$ is the population at time $t$ and $a$ is a coefficient equal to 0.016888 and $e$ equals to 2.71828. Temporary floating population living in the city was also accounted. For the purposes and size limits of this paper, only the parameters of the “Population” subsystem are illustrated analytically (Table 2), while similar factors have been utilized for the remaining subsystems.

Table 2. Parameters of the “Population” subsystem

<table>
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<tr>
<th>Equation</th>
<th>Description</th>
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<tr>
<td>Total_Population = +dt*(Floating_Population) + dt*(Population_Increase) - dt*(Population_Decrease)</td>
<td></td>
</tr>
<tr>
<td>Total_Population = 1000</td>
<td></td>
</tr>
<tr>
<td>Population_Increase = IF(Population_Density &lt; Population_Density_Cap, Total_Population*(EXP(0.016888<em>TIME))</em>(EXP(0.016888-1)), 0)</td>
<td></td>
</tr>
</tbody>
</table>
Population_Decrese = DELAYINF(Floating_Population,3)


| Land_Area = 85 |
| Population_Density = Total_Population/Land_Area |
| Annual_Population = INT(Total_Population) |
| Population_Density_Cap = 65 |

Net_Population_Increase = Floating_Population+Population_Increase

| Workforce = Total_Population*0.53 |
| Floating_Population_Modulus = 0.05 |

*dt concerns date change: values of ¼ years and ⅛ years were tested*

Next, the housing subsystem (Figure 1) calculates household growth. The number of unoccupied houses was accounted as the construction activity aggravates the environment (Cheng et al., 2006). The economic activity subsystem calculates the overall business value (Ho & Wang, 2005) and to this end, both an industrial subsystem and a service sector subsystem were included.

Figure 2: The integrated conceptual eco-city model diagram

Furthermore, the “Energy Consumption” subsystem illustrates corresponding carbon emissions (Golove & Schipper, 1997). For the purposes of this study, data regarding the Tianjin city were leveraged. First of all, the annual energy consumption per capita in Tianjin was 2790 kWh (Department of Industry and Transport Statistics, 2002). Additionally, the electrical power use per GDP in industry is projected to be 1.2 kWh per US dollar, whereas in services’ industry it is 0.8 kWh per US dollar (USAID Asia, 2011).

Next, the environmental pollution subsystem measures the total impact on the environment, it concerns the core of eco-city subsystems and consists of the water pollution subsystem; the emissions
subsystem; and the solid waste subsystem. The produced sewage is considered an integral part of an urban socio-economic-environmental system. According to Zhang et al. (2008), the water consumption per capita in Tianjin city is estimated to be 160 m3/year. They also found that the water pollution index ranges between 0.8 and 1.3.

Regarding emissions, the proposed modeling approach includes only the carbon dioxide (CO2) (Pugsley et al., 1994). According to Geng et al. (2011), in 2007 the CO2 emissions in Tianjin were 20.82 ton/capita. The estimation of the total carbon dioxide emissions from the business sector was calculated with the means proposed by (Price et al., 2013) to be 1.40 kg CO2 per US dollar. Finally, the proposed model measures solid waste per day in Tianjin about 4500 tons (Zhao et al., 2008).

2.3. Scenarios analyses

Simulation analyses were performed for the corresponding SD model’s evaluation. Findings reveal that the environmental impact of an eco-city is highly correlated to the population of the city and after 50 years, a newly constructed green city exhibits signs of great increase in population growth and environmental pollution, which raise concerns about eco-city’s effectiveness.

2.3.1. Scenario 1 - Research and Development Intensity

Eco-cities must secure socio-economic prosperity. Therefore, investments in research and development (R&D) can drive economic growth, while there is a clear trend of smart cities towards transforming into eco-cities (Anthopoulos & Fitsilis, 2013; Kim et al., 2012). In addition, labor productivity is pivotal regarding the overall value of the business sector in the city.

The first scenario assumes that R&D expenditure in an eco-city increases from 0% to 7% and labor productivity from 50% to 80% respectively. This change affects the monetary output of the city and shows that economic prosperity aggravates environmental pollution. As it is expected, the increase in R&D investments and labor productivity enhance the total value of the overall business sector in simulated conceptual city. The simulation results demonstrate that the R&D and productivity focus results in an annual business growth rate of 8.66%.

Notably, abrupt increase in urban solid waste production is observed, which follows quite linear growth with an increase rate of 2.97%; water pollution follows the same growth pattern with an average growth rate of 8.76%; CO2 emissions present the most interesting evolution trend, caused by the regulations inserted in the system. Policy interventions take place whenever there is recorded a sharp increase in the GHG emissions. The intensification of R&D normally increase the CO2 emissions but they have a lower effect in contrast to the water pollution. The observed annual increase rate in gas emissions is 5.34%. Finally, energy consumption follows the same growth pattern and it is estimated to an annual rate of 7.38%.

2.3.2. Scenario 2 - Environmental Management Strategy

Several eco-friendly policies and regulations are considered and to this end, the proposed model contains some quantitative key performance indicators (KPIs) (for example the CO2 emissions surpass a certain threshold then a strict environmental strategy is implemented to keep the system within the pollution boundaries). Such a strategy is in line with the KPIs for the planning and development of the Tianjin eco-city (Tianjin Eco-city, 2012) and envisions: (i) water supply of the city to be 50% provided by non-traditional sources such as desalination and recycled water; (ii)
A proportion of renewable energy will be at least 20%; (iii) solid waste recycling at 60%; and (iv) CO2 emission cap of 100,000 tons. The second scenario stresses the role of the environmental institutional regulations. First of all, there is no effect to the total business value, which increases 8.66% annually. On the contrary, the applied measures result to an annual decrease of solid waste by 9.26%. On the other hand, after a decade water pollution stops (annual decline growth of 5.77%), but in a 30-year period water pollution reaches the same levels before the applied policy. Policy interventions highly impact CO2 emissions, since they result to an annual reduction rate of 79.51%. Finally, the investigated policies do not appear to have any significant impact on energy consumption as the annual reduction rate is calculated to be 3.47%.

3. Results and discussion

Structural validity of the proposed SD model in terms of dimensional consistency was tested (Sterman, 2000). Based on real data, preliminary values of the model’s variables were examined and their rationality was ascertained. Afterwards, extreme-condition tests were performed in order to investigate the realistic behavior of the proposed model, even under extreme policy-making decisions. For instance, no pollution was generated when coefficients were set to zero. In addition, sensitivity tests were conducted and positive and negative value sets of the effect of each external factor were interchangeably examined. To this effect, corresponding system responses regarding the total pollution were observed.

Furthermore, integration error test methods were elaborated. Euler integration method was followed, as the Runge-Kutta method is not suggested for systems that include random disturbances (Sterman, 2000). Also, the shortest time constant in the proposed model is set to 1 year. As the standard SD practice suggests that the integrating time step (DT) cannot exceed the ¼ of the shortest time constant, an initial DT of ¼ years and ⅛ years was examined and the model did not yield any diverse results.

The proposed model is an effort to capture comprehensively the complex nexus of the factors which involve in a eco-city. Nevertheless, the subsystems are not analyzed in detail since each can be considered an individual research field. For example, an assumption was made that the population and business subsystems consume only electric power, whilst excluding other forms of energy sources. Additionally, the effect of other key subsystems -such as transportation- were not accounted.

Moreover, only firms that either belong to the services’ or the heavy industry sector were considered, whereas a more detailed model should cluster the business environment according to more sectors. Moreover than not, there are no considerations about the agricultural and food industry in the city, since green city should be self-sustained (Waggoner, 2006). Further, educational institutions and research centres were not considered herein. Finally, financial elements like inflation rates and operational costs or any political/institutional instability factors were not accounted.

4. Conclusions

This paper recognizes the recent smart city’s trend to evolve to eco-friendly approaches named green or eco-cities. In this order, it aims to evaluate the sustainability of an eco-city with regard to a set of social, economic and cultural parameters that coexist in urban spaces. A conceptual eco-
city that was based on particular systems was identified and quite a simple but generic SD model was composed, which can establish such an evaluation.

The proposed SD model was tested with two scenarios regarding policy intervention strategies that affect economic output and environmental pollution in terms of water pollution, CO2 emissions and solid waste production. Results indicate that population and business sector increase in an eco-city and the environmental pollution increases accordingly. On the other hand, policy interventions with regard to environmental protection only achieve in limiting the increasing pollution rate. The only environmental aspect that interventions seem effective is the reduction of CO2 emissions. A major observation is that after a 30-year period, the population increases in eco-city expands. The most prominent policy intervention is to set a limit on the population that an envisaged eco-city can accommodate.

Future research aims to focus on specific real or under development eco-cities, in order to accurately identify and appropriately select the key variables and parameters so as the proposed model to be rendered with robustness. Finally, economic parameters (i.e., tax incentives, funding etc.) could yield insightful managerial insights and have to be considered.

References


About the Author

**Leonidas Anthopoulos**

Dr. Leonidas Anthopoulos is an Associate Professor at the Business School of the TEI of Thessaly. Dr. Anthopoulos has IT research, planning and Management experience with the development and deployment of municipal and organizational IT environments. At his previous job positions, as an Expert Counselor at the Hellenic Ministry of Foreign Affairs in e-Government and e-Diplomacy areas, as an IT researcher and manager etc., he was responsible for planning and managing the development of multiple IT systems for Greek government and for various organizations. He is the author of several articles published on prestigious scientific journals, books and international conferences. His research interests concern, among others, smart city, e-government, enterprise architecture, strategic management, etc.
Positive but Skeptical

A Study of Attitudes Towards Internet Voting in Sweden

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Abstract: This study explored the attitudes of a broad sample of politically interested Swedish voters towards Internet voting. A total of 5683 participants completed a web-based survey concerning participation and security aspects of Internet voting. Attitudes towards Internet voting were positive on the whole and the acceptance of participation in democratic elections using Internet voting was spearheaded by: women, groups with relatively short education, the unemployed and the self-employed. Unlike previous studies, it was found that age was not a significant factor in determining the attitudes towards participation in elections by means of Internet voting. Concerning the security challenges of Internet voting, men were more optimistic than women and participants’ confidence in security increased with age and education length.

Keywords: Internet voting, electronic participation, security, democracy, digital engagement

Governments continue to invest resources in developing ways to increase voter turnout in elections. For numerous years, Internet voting has been considered by many as a way to remedy this challenge. Internet voting is “the casting of a secure and secret electronic ballot that will be transmitted to election officials via the web” (Smith, 2008) and is a derivate within the research area of electronic voting (e-voting). The area of e-voting encompasses a number of voting technologies, which can broadly be divided into two categories (Dill & Castro, 2008; Sanford & Rose, 2007):

- Electronic voting at polling stations using Direct-Recording Electronic (DRE) voting machines or similar equipment. The procedure is physically supervised by representatives of governmental or independent electoral authorities.
- Remote electronic voting via the Internet that is carried out within the voter’s sole influence. The procedure is not physically supervised by any governmental representatives or restricted to a specific location.
This study will focus on the latter, i.e. remote electronic voting using the Internet. After the adoption of Internet voting in countries such as Estonia (Alvarez, Hall, & Trechsel, 2009), Switzerland (Driza-Maurer, 2013), some local elections in Austria (Prosser, Kofler, & Krimmer, 2003), and Norway (Segaard, Christensen, Folkestad, & Saglie, 2014), a growing interest towards it has arisen in the rest of the world, among others in Sweden, which is the particular focus of this study.

In Sweden, a total of 7 million people, or 91 per cent, in the ages 16 to 85 years have access to a computer and an Internet connection in their home. In the ages 16 to 74 years the access to the Internet is 95 per cent (Statistics Sweden, 2014). With the growing demand of online services and the fact that the general election in Sweden remains a manual and costly process (Bränström, 2010), it might become a necessity to introduce Internet voting as a compliment to traditional voting in order to maintain and possibly increase voter turnout in the future. In a recent Swedish Government official report (SOU 2013:24) it was concluded it is a value in itself to make it easier and less costly for voters to exercise their democratic rights by allowing electronic voting over the Internet as a complement to postal voting and voting places. In addition, it was argued that such arrangements could provide voters with disabilities and expatriates the opportunity to be part of an election on equal grounds. Assuming that the high security requirements on the electoral process can be fulfilled (e.g., voter identification and authentication, reliability and availability of the system), other benefits of Internet voting include safer tabulation of votes and quicker reporting of the election results. The report concludes that trials should be conducted in the 2018 General Elections to evaluate the process and outcomes of Internet voting.

However, the Swedish Government official report (SOU 2013:24) does not rely on independent research within a Swedish context, and currently there is no other large scale study that we are aware of that has been conducted in the Swedish context to examine voters’ attitudes of Internet voting. Before introducing Internet voting to the public it is essential to explore voters’ attitudes in order to unveil potential challenges. In order to fill this gap, gain a better understanding of the inquiry, and support decision-making with regards to the potential introduction of Internet voting in Sweden in 2018, we conducted an exploratory quantitative study with focus on voter participation and security challenges of Internet voting. The questions of interest that the paper addresses are: (1) how disposed are Swedish speaking voters towards Internet voting? (2) How do factors such as age, gender, education, employment, and political background influence participation through Internet voting? (3) What role does security play when engaging with Internet voting?

The section that follows looks at case studies focusing on participation and security aspects of Internet voting. The third sections describes the methodology employed and the fourth the results. Finally, the fifth section provides a discussion of the findings, their implications in practice, limitations of the current study and finally suggestions for future work.

1. Literature review

Internet voting has been a topic of interest since the early 1980s when Chaum (1981) proposed the use of mix nets to ensure secrecy of the vote. Today the interest in Internet voting continues to grow constantly, with its increasing adoption in legally binding elections ranging from university (Adida, De Marneffe, Pereira, & Quisquater, 2009) to parliamentary elections (Alvarez et al., 2009). A number of countries have used Internet voting, for instance Austria, Estonia, Norway and
Switzerland (U.S. Election Assistance Commission, 2011). A large number of Internet voting schemes have also been proposed in the research literature, for instance Civitias (Clarkson, Chong, & Myers, 2008), EVIV (Joaquim, Ferreira, & Ribeiro, 2013), Helios (Adida et al., 2009), Pretty Good Democracy (Ryan & Teague, 2009), VeryVote (Joaquim, Ribeiro, & Ferreira, 2009), and Pretty Understandable Democracy (Budurushi, Neumann, Olembo, & Volkamer, 2013).

The principal rationale of introducing and adopting Internet voting is increasing the number of participants, especially among younger citizens (Belanger & Carter, 2010; Segaard et al., 2014; Ström, SOU 2000:125) and those living abroad (Loqmane, 2011). Other motivations include enhancing the accessibility for voters, reducing proxy vote applications, providing a faster and more accurate election result, and reducing costs. While the use of Internet voting has been praised as a means to deal with the dwindling participation numbers in elections, other case studies have not only proven the opposite (KITV., 2009; U.K. Electoral Commission, 2007) but it has been suggested that remote voting via the Internet could lead to negative effects on participation due to the loss of ritual and social pressure to vote (Funk, 2008).

Despite the growing interest and advantages, Internet voting introduces a number of challenges with respect to security: (1) secrecy and integrity (confidentiality, voter anonymity, and integrity of the vote), i.e., votes should remain secret with respect to any third party involved in the process, votes should not be able to be modified, forged, or deleted without detection; (2) reliability and availability of the system, i.e., election systems should work robustly, without loss of any votes, even in the face of numerous failures, including failures of voting machines and total loss of Internet communications; and (3) voter identification and authentication, i.e., it should be possible to uniquely identify and authenticate voters, such that each voter can cast only one vote, however without linking a voter’s identity to their vote (U.S. National Institute for Standards and Technology, 2011). In spite of these security challenges, a number of countries have used Internet voting in legally binding elections, such as Austria, Estonia, Norway and Switzerland. In the following we will provide descriptions of case studies related to the aforementioned countries. These particular countries were selected on the basis that they have longstanding discussions about e-democracy and share common characteristics with Sweden in terms of a political culture that supports and promotes Internet voting, a developed technological infrastructure, high Internet penetration rates and already proven advancements in the area of Internet voting.

In the case of Austria, Internet voting has been used only once for legally binding elections, namely during the 2009 Federation of Students’ Union elections in Austrian universities. The Internet voting system used in this election has been tested in prior non-binding elections in 2003, 2004 and 2006. Currently, the Austrian constitutional prohibits the use of Internet voting for parliamentary elections. In 2003, Internet voting was provided in parallel to the paper-based federation of student elections at the WU Vienna. In this election, 978 students were eligible to participate by casting an additional electronic vote to the paper, and 36 per cent did so. In comparison to the paper-based election where only 26 per cent of all eligible voters participated, voter turnout with Internet voting was 40 per cent higher (Prosser et al., 2003). In 2006, the goal of the test election was to address the Austrians living abroad and evaluate the usability of the Internet voting system. Among the 293 citizens that registered only 148 (50.5 per cent) of them actually cast a vote by means of the Internet (Prosser, Schiessl, & Fleischhacker, 2007). Finally, in the elections of 2009, 2161 voters cast their vote over the Internet. This was approximately 1 per
cent of the 230 479 students that were eligible to vote among 21 Austrian universities (Krimmer, Ehringfeld, & Traxl, 2010).

Regarding voters’ attitudes in Austria with respect to the security of Internet voting, Prosser et al. (2007) indicated that 90 per cent of 114 participants who submitted a complete questionnaire after casting their vote were willing to accept a two-stage voting procedure, namely voter registration preceding vote casting, if this was necessary to protect vote secrecy, i.e. voters’ anonymity. Finally, while 68 per cent of the participants reported a strong trust for the Internet voting system with respect to the integrity and secrecy of the vote, 12 per cent were strongly concerned. The Austrian Ministry for Science and Research (2010) describes a slightly different picture with respect to the security of Internet voting in a report, which is the complete and longer version of the work presented by Krimmer et al. (2010). Approximately 50 per cent of the 2161 participants were concerned about the security of the Internet voting system. However, the participants did not disclose any specific arguments with respect to their security concerns. Furthermore, less than 10 per cent stated concerns with respect to the integrity of the vote, i.e. manipulation vulnerabilities of the Internet voting system.

Krimmer (2014) provides a comprehensive summary of lessons learned from the Internet voting experience in Austria by identifying a first set of important building blocks for the conduct of Internet voting. The identified building blocks are the following: legal basis, identification, secrecy, control by election committee, certification and transparency. Regarding the legal basis the Austrian case shows that the implementation of legal principles into an ordinance needs to include technical details. When it comes to identification, transaction authentication numbers (TANs), so called predefined codes, can be easily used by the voters, while smart cards might provide a high usability barrier for participation. Vote secrecy was ensured by organizational means, i.e. before the votes were tallied they were anonymised, i.e. separated from voter’s identity. The election processes, e.g. start or stop the election, should remain in full control of the election committee, even though they usually have a legal background and only limited technical experience. When it comes to certification technical requirements, which are used to evaluate the Internet voting system, have to be derived from legal requirements by using appropriate methods, like the method proposed by Simić-Draws et al. (2013). Although a number of methods existed, it was necessary to develop a specific one for Austria because existing methods were either limited to specific systems and national (electoral) legislation, or too generic. Last but not least, no means were used in Austria to provide voters with transparency. However, the experiences of Estonia and Norway should be considered in the future.

Shifting focus to Estonia, the country is considered to be the one that has advanced furthest with the deployment of Internet voting. There have been seven elections between 2005 and 2014 where Internet voting has been used (National Electoral Committee of Estonia, 2014). In 2005, Estonia held a local election where a total of 9287 votes were cast using Internet voting, which constituted a total of 1.9 per cent of all eligible votes. In the parliament election of 2007, Internet voting participation increased to 5.5 per cent (30 243 votes) and rose to 14.7 per cent (58 614 votes) in the European Parliament election of 2009. Compared to the 2005 local election, participation in the local election of 2009 increased by 13.9 to 15.8 per cent (104 313 votes). Further, a great boost in participation was seen in the parliament election of 2011 where Internet voting participation was 24.3 per cent (140 764 votes), which is an increase of 18.5 per cent from the parliament election of 2007.
Despite the constant increase over the years since 2005, a decline was witnessed in the local elections of 2013 where 21.2 per cent (133 662 votes) participated using Internet voting. However, the greatest increase seen so far in Estonia was during the European Parliament elections of 2014. A total of 31.3 per cent (103 105 votes) of all participants cast their votes by means of Internet voting, an increase of 16.6 per cent from 2009. By and large, there were negligible differences in Internet voting participation among the age groups and a slight difference between the genders where women were in majority.

Even though Internet voting has been in use for many years in Estonia, not much data exist on voters’ attitudes towards participation by means of Internet voting. Nonetheless, a report by Madise and Martens (2006, p. 15) indicates that attitudes towards Internet voting were on the whole positive and that factors such as gender, income, education, type of settlement and age were not determinants in choosing Internet voting from all voting channels. However, neither comprehensive data nor surveys exist that would enable analyses of Estonian voters’ attitudes with respect to the security of Internet voting. One important lesson learned from the Estonian case is that an appropriate legal and regulatory framework as well as a deliberate political process that scrutinize the idea of Internet remote voting is needed before the implementation and deployment of an Internet voting system to the public (Alvarez et al., 2009). In addition, there are four key characteristics to the Estonian case that has made Internet voting a success: (1) widespread Internet user penetration (80 per cent of the population); (2) a legal framework that addresses Internet voting issues; (3) an identification system that allows for digital authentication of the voter and; (4) a political culture that support and promote Internet voting. The Estonian Internet voting system allows voters to update their vote any time before the final voting day either over the Internet, or by casting another vote at the polling station, in order to guarantee the voter’s independent right of choice. The statistics indicate that on average 4000 voters use these options (National Electoral Committee of Estonia, 2014). This particular solution makes it also hard to transfer results from Estonia to Sweden.

Turning to Norway, the country has used Internet voting in two trial elections in 2011 and 2013. The motivation for introducing Internet voting was two-fold, namely: (1) to enfranchise disabled, elderly, expatriates and military troops serving abroad and; (2) to increase political participation among indifferent and younger eligible voters (Segaard et al., 2014, p. 60). In 2011, Internet voting was available for ten municipalities and approximately 168 000 voters could vote online during the advance-voting period, lasting for 30 days. While in 2013, 12 municipalities participated in the trial elections, giving approximately 250 000 eligible voters the option to vote online during the advanced-voting period. Statistics by Segaard et al. (2014, p. 16) indicate that 26.4 per cent of voters in 2011 participated using Internet voting, while that number increased to 36.4 per cent in 2013. Moreover, the level of trust in Internet voting increased from 76 per cent in 2011 to 81 per cent in 2013. By and large, attitudes towards Internet voting in Norway were positive during both trial elections and remained so after counter-arguments related to privacy, the secret ballot, and technological security were introduced. In addition, analyses of demographics indicate that women, married people, those with higher income and education as well as individuals born in Norway vote to a greater extent compared to men, unmarried people, those with lower income and education as well as individuals born outside of Norway. This difference applies both for paper voting as well as Internet voting. In terms of age, there was a discrepancy between the age groups such that the older age groups preferred paper voting while the younger were more likely to choose Internet voting (Segaard et al., 2014, p. 58).
What is more and closely related to the privacy issue, a majority of the respondents found it acceptable that others could see how a person voted with the proviso that no criminal activity occurred (e.g., buying votes). At the same time, in some situations where an individual would help another cast his or her vote, for instance people with disabilities, was largely perceived as acceptable (Segaard et al., 2014, p. 122). These are two important lessons to bear in mind from the Norwegian experiment. In addition, a key factor behind the success of Internet voting in Norway was to “publish the full logical and technical system documentation” in order to increase transparency and trust “not only among the experts but also among the non-technical audience”. This was done by allowing the public to “be informed as early as possible and be able to participate in an open discussion [about the use of Internet voting]” (Spycher, Volkamer, & Koenig, 2011, p. 20).

Finally, Switzerland is considered a pioneer in the area of Internet voting and has since the early 2000s been experimenting with Internet voting. It has been argued that traditional voting channels such as postal voting often fail to empower expatriates for various reasons (e.g., late dispatch of voting materials or problems with postal delivery). There are two reasons behind the development of Internet voting in Switzerland, namely: (1) an increasingly growing demand by the 700 000 Swiss expatriates to participate in the electoral process based on the national principle (i.e., all nationals should have access to the electoral process) and; (2) the trials of Internet voting for Swiss expatriates is considered a precursor to a possible general introduction of Internet voting (Germann, Conradin, Wellig, & Serdült, 2014). A survey of the 2011 Swiss national election indicated that 61 per cent of the 1549 participants strongly supported Internet voting. An additional 28 per cent reported it as rather important, yielding a total 91 per cent support rate for Internet voting (Lutz, 2012). With regards to lessons learned, it has been argued that high adoption rates among Swiss expatriates could generate a positive perception of Internet voting and eventually spill over the domestic debate where Internet voting is frequently challenged by the broad spectrum of political parties (see Mendez & Serdült, 2014). In addition, Switzerland focused on enhancing security and transparency in order to increase voters’ trust in Internet voting. Hence, as a first step the 12 years old Internet voting legislation was updated according to current understanding of Internet voting and advances in Internet voting technology. Thus, allowing the development and use of verifiable Internet voting systems (Maurer, 2014).

In sum, Ström (SOU 2013:24) recommended that trials with Internet voting should be introduced in the General Elections of 2018. This recommendation was, however, based on data outside the Swedish context due to the lack of scientific studies that examine Swedish voters’ attitudes towards Internet voting. One of the particularly Swedish conditions that facilitates the introduction of Internet voting is that as much as 91 per cent of the population in the ages 16 to 85 years have access to a computer and an Internet connection in their home (Statistics Sweden, 2014).

2. Aim of study and research questions

Departing from the aforementioned considerations, the aim of this exploratory quantitative study is to survey Swedish voters’ attitudes towards Internet voting in Sweden and to support decision-making with respect to the suggested introduction of Internet voting in the country by 2018. The research questions of interest are:
• How disposed are Swedish voters towards Internet voting?
• How do factors such as age, gender, education, employment, and political background influence participation through Internet voting?
• What role does security play when engaging with Internet voting?

3. Methods
3.1. Participants

Participants were characterized by demographic variables such as age, gender, education (divided into four groups: compulsory school [nine years of formal education], high school [12 years], college [15 years], and postgraduate education [15+]). In addition, we had data on type of employment (employed, unemployed, self-employed, retired, student), and self-declared political allegiance (three groups constituting a somewhat simplified picture of the political landscape in Sweden: apolitical [voted blank, abstain, other party sympathy], the governing Liberal-Conservative Alliance [Moderate Party, Centre Party, Liberal People’s Party, Christian Democrats], and the Red-Green Opposition [Social Democratic Party, Green Party, Left Party of Sweden], see Table 1. In the analysis of political allegiance we excluded a small minority of adherents to parties not represented in the Swedish parliament or not affiliated with any of the major blocks.

Table 1: Demographics of questionnaire sample in relation to the Swedish electorate.

<table>
<thead>
<tr>
<th></th>
<th>Questionnaire sample (N = 5237)</th>
<th>Swedish electorate (N = 7 201 600)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>52.7 (2761)</td>
<td>49.4 (3 557 590)</td>
</tr>
<tr>
<td>Female</td>
<td>47.3 (2476)</td>
<td>50.6 (3 644 010)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25</td>
<td>31.7 (1659)</td>
<td>13.5 (972 215)</td>
</tr>
<tr>
<td>26-35</td>
<td>21.9 (1145)</td>
<td>15.5 (1 116 250)</td>
</tr>
<tr>
<td>36-45</td>
<td>18.3 (959)</td>
<td>17.3 (1 245 875)</td>
</tr>
<tr>
<td>46-55</td>
<td>15.7 (823)</td>
<td>16.1 (1 159 460)</td>
</tr>
<tr>
<td>56-65</td>
<td>9.1 (474)</td>
<td>15.9 (1 145 055)</td>
</tr>
<tr>
<td>&gt; 65</td>
<td>3.3 (177)</td>
<td>21.7 (1 562 745)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compulsory school</td>
<td>10.2 (529)</td>
<td>24.7 (1 778 795)</td>
</tr>
<tr>
<td>High school (10-12 years)</td>
<td>42.6 (2217)</td>
<td>43.8 (3 154 300)</td>
</tr>
<tr>
<td>College (13-15 years)</td>
<td>21.0 (1094)</td>
<td>30.4 (2 189 285)</td>
</tr>
<tr>
<td>Postgraduate (15+ years)</td>
<td>26.2 (1362)</td>
<td>1.1 (79 220)</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>51.5 (2626)</td>
<td>54.4 (3 917 670)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>7.5 (382)</td>
<td>6.1 (439 300)</td>
</tr>
<tr>
<td>Self-employed</td>
<td>6.4 (329)</td>
<td>8.4 (604 930)</td>
</tr>
<tr>
<td>Retired</td>
<td>6.7 (341)</td>
<td>23.2 (1 670 770)</td>
</tr>
<tr>
<td>Student</td>
<td>27.9 (1424)</td>
<td>7.9 (568 930)</td>
</tr>
<tr>
<td>Political allegiance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apolitical (voted blank, abstain, other party sympathy)</td>
<td>23.3 (1122)</td>
<td>22.3 (1 605 955)</td>
</tr>
<tr>
<td>Liberal-Conservative Alliance</td>
<td>35.0 (1686)</td>
<td>41.2 (2 967 060)</td>
</tr>
<tr>
<td>Red-Green Opposition</td>
<td>41.7 (210)</td>
<td>36.5 (2 628 585)</td>
</tr>
</tbody>
</table>

Notes. Numbers for the Swedish electorate are estimates based on statistics from the government agency Statistics Sweden.
3.2. Materials

A web-based questionnaire was applied to collect data from participants. The questionnaire was administered in Swedish and consisted of four sections: the first, an introduction with the purpose to collect descriptive information such as age, gender, education, employment, political background and three sections with main items. A total of 20 Likert-type items were used and based on a scale ranging from 1 to 5, where 1 referred to disagreement while 5 referred to agreement with the item content. The 20 items were concerned with questions regarding the security of Internet voting (e.g., are you worried that the results could be manipulated in an election when using Internet voting?), individual attitudes towards Internet voting (e.g., do you consider that Internet voting could increase the general tendency to participate in elections?), and opinions about participation through Internet voting (e.g., do you consider that the turnout activity would be higher if Internet voting was offered?).

3.3. Procedure

The questionnaire was sent to participants who had taken part in an experimental polling simulating an election through Facebook preceding the Swedish parliamentary election of 2010 to predict how Swedish electorate would vote in the parliamentary election of 2010 before the actual election day. Participants had given informed consent prior to the polling on Facebook to be contacted in the future. After the actual election was completed, a mailing list containing participants’ e-mail address was generated and e-mail was sent to participants inviting them to complete the present questionnaire. This channel provided us with a sample of Swedish voters using the Internet who expressed a degree of political interest. Participation was on a voluntarily basis and no personal information was collected during the questionnaire. Participants were given introductory information regarding the questionnaire upon opening it, for instance how long it would take to conduct the survey and contact information to the authors. Following the closure of the questionnaire, all data were exported for data processing and statistical analyses.

3.4. Data processing

Data were centered on zero by subtracting the number 3 from all item scores. Twenty Likert-type items were factor analyzed for dimension reduction. To secure a reproducible factor structure, we divided participants into two randomly formed groups and performed a factor analysis for each one separately, and then compared factor structure, accepting only factor loadings that reproduced quite closely in both samples. The two factors representing the greater part of the variance proved to be reproducible in both samples. Item content is presented in Table 2.

<table>
<thead>
<tr>
<th>Participation factor items</th>
<th>Security factor items</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Believes in a positive effect on participation</td>
<td>(1) Willing to participate in an I-election if security can be guaranteed</td>
</tr>
<tr>
<td>(2) Believes in social and emotional presence created by social media (e.g. Facebook or Twitter)</td>
<td>(2) Not worried about security issues in terms of poll manipulation</td>
</tr>
<tr>
<td>(3) Believes in a positive effect on own likelihood to participate</td>
<td>(3) Rates danger of intrusion as small</td>
</tr>
<tr>
<td>(4) Errors in counting votes diminished by I-election</td>
<td>(4) Down rates threat to democracy because of uneven</td>
</tr>
</tbody>
</table>
(4) Presenting candidates on interactive web pages will have a stimulating effect access to the Internet
(5) Will increase participation by you-nger citizens
(6) Will increase overall participation
(7) Believes in satisfactory solution of security issues
(8) Believes in effect on the experience of voting
(9) Does not believe that reliability of I-election would be in jeopardy

Factor 3 represented only three items and was unstable across samples; hence ignored in further processing. Two strongly reproducible factors emerged, one of which we named “Participation”, consisted of six items, having an acceptable consistency (Cronbach’s Alpha = .70), and the other of which we named “Security”, having nine items and good consistency (Cronbach’s Alpha = .87).

4. Results

Overall, participants on average showed a positive attitude towards Internet voting. Grand mean for both scales were reliably on the positive side ($M = .88$ for the participation scale, and $M = .28$ for the security scale). Thus, the majority of participants were optimistic about future effects on voter participation, but more cautiously about the prospects of solving security issues, see Table 3.

Table 3: Attitudes towards participation and security of Internet voting by subgroups: gender, age, education, employment and political allegiance.

<table>
<thead>
<tr>
<th></th>
<th>Participation</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
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</tr>
<tr>
<td>Male</td>
<td>52.7 (2761)</td>
<td>.852*a</td>
</tr>
<tr>
<td>Female</td>
<td>47.3 (2476)</td>
<td>.905*b</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25</td>
<td>31.7 (1659)</td>
<td>.874*a</td>
</tr>
<tr>
<td>26-35</td>
<td>21.9 (1145)</td>
<td>.900*a</td>
</tr>
<tr>
<td>36-45</td>
<td>18.3 (959)</td>
<td>.877*a</td>
</tr>
<tr>
<td>46-55</td>
<td>15.7 (823)</td>
<td>.896*a</td>
</tr>
<tr>
<td>56-65</td>
<td>9.1 (474)</td>
<td>.784*a</td>
</tr>
<tr>
<td>&gt; 65</td>
<td>3.3 (177)</td>
<td>.911*a</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compulsory school (9 years)</td>
<td>10.2 (529)</td>
<td>.847*ab</td>
</tr>
<tr>
<td>High school (10 – 12 years)</td>
<td>42.6 (2217)</td>
<td>.930*b</td>
</tr>
<tr>
<td>College (13 – 15 years)</td>
<td>21.0 (1094)</td>
<td>.879*ab</td>
</tr>
<tr>
<td>Postgraduate (15+ years)</td>
<td>26.2 (1362)</td>
<td>.807*a</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>51.5 (2626)</td>
<td>.872*bc</td>
</tr>
<tr>
<td>Unemployed</td>
<td>7.5 (382)</td>
<td>.976*a</td>
</tr>
<tr>
<td>Self-employed</td>
<td>6.4 (329)</td>
<td>.979*a</td>
</tr>
<tr>
<td>Retired</td>
<td>6.7 (341)</td>
<td>.871*ab</td>
</tr>
<tr>
<td>Student</td>
<td>27.9 (1424)</td>
<td>.839*ab</td>
</tr>
<tr>
<td>Political allegiance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apolitical (voted blank, abstain, no party sympathy)</td>
<td>23.3 (1122)</td>
<td>.887*a</td>
</tr>
<tr>
<td>Liberal-Conservative Alliance</td>
<td>35.0 (1686)</td>
<td>.894*a</td>
</tr>
<tr>
<td>Red-Green Opposition</td>
<td>41.7 (2010)</td>
<td>.849*a</td>
</tr>
</tbody>
</table>

Notes. Attitude scores for the participation and security scales range from -2 to +2 where positive numbers indicate favorable attitudes towards Internet voting. Items marked with asterisk are significantly different...
from zero, where \( p < .05 \). Means marked with different letters (e.g. \( ab \)) are significantly different from each other as measured by the Scheffé test. Sample size is given as percentage with raw data being presented within parentheses.

For each of our scales, we aimed at predicting a positive attitude from our background variables, age, gender, education, employment and political allegiance. Each background variable was used as a between-subject factor in a one-way Analysis of Variance (ANOVA). The correlation between the two scales was .53 \((p < .001)\).

With regards to the participation of Internet voting, there was a significant difference between genders, such that women \((M = .91)\) were more positive than men \((M = .85)\), \( F(1, 5235) = 7.39; p = .007 \). There were no differences between age groups, \( F(5, 5231) = 2.07; p > .05 \). Education had a significant effect, \( F(3, 5198) = 8.70; p < .001 \). There were both linear and quadratic trends because there was a general decreasing tendency across education length but maximum positivity was reached at the second lowest level of education, i.e. high school. Degree and kind of employment were significantly related to the attitudes, \( F(4, 5097) = 4.57; p = .001 \). Post-hoc tests showed that in relation to the largest group, the employed, there were significant differences in the unemployed and self-employed categories. Both were on average more positive in their attitudes than the employed group. The retired and student groups did not differ significantly from the employed group. There were no significant differences between political groups, \( F(2, 4815) = 2.08; p > .05 \).

Concerning the security of Internet voting, men \((M = .35)\) were significantly more optimistic than women \((M = .19)\), \( F(1, 5235) = 45.47; p < .001 \). Age had a significant effect on the security scores, \( F(5, 5231) = 44.15; p < .001 \). By and large, participants’ confidence in security increased with age. Length of formal education had a powerful effect on the security attitudes, \( F(3, 5198) = 18.63; p < .001 \). The effect was entirely linear with increases tracking length of schooling. Participants’ employment status was significantly related to attitude scores, \( F(4, 5097) = 52.05; p < .001 \). Relative to the largest group (employed), there was greater confidence in security among the self-employed and lower confidence in the unemployed and students. Political allegiance was strongly related to security attitudes, \( F(2, 4815) = 109.79; p < .001 \). Followers of the governing Liberal-Conservative Alliance were more positive \((M = .51)\) than the followers of the Red-Green Opposition \((M = .18)\), who were in their turn more positive than the uncommitted \((M = .06)\).

5. Discussion and conclusions

The current study finds that the acceptance of Internet voting for participation was spearheaded by women, groups with relatively short education, and the unemployed or self-employed. Interestingly, this is in conflict with the earlier evidence of Sultan (2002) that early adopters of new technology tend to be male, relatively young and well-educated. The results are also partially in contrast to the Norwegian findings (Segaard et al., 2014), where those with higher education adopt Internet voting to a greater extent than their counterparts. On the one hand, the found attitudes in the current study can be portrayed as being generally positive with respect to participation, but on the other hand there is skepticism about the feasibility of reliable, secure and fair large-scale elections on the Internet.

More noteworthy is that, unlike past studies (Bélanger & Carter, 2010; Kenski, 2005; Segaard et al., 2014; Ström, SOU 2000:125), we found that there was no significant difference between the age classes concerning the interest for participation in elections by means of Internet voting. This is in
line with Findahl’s (2013) finding that in Sweden the use of the Internet among the older generations is already quite high, and is thereby potentially removing the digital divide. It is likely that even the older generations may adopt Internet voting, although perhaps not at the same rate as younger ones. However, some care must be taken into account when generalizing the result for the age group >65 because of the relatively few and self-selective online participants in the survey.

Another surprising result in our study is that the entire spectrum of the political parties was by and large equally sympathetic to the use of Internet voting. Although not directly comparable to the very unequal distribution of cast Internet votes in Estonia (National Electoral Committee of Estonia, 2014), the current results imply a drastically different situation in Sweden, perhaps also due to the very high and equal Internet adoption rate.

Regarding the security challenges of Internet voting, it was revealed that men were generally more positive than women. In addition, men’s confidence in security increased with age and length of education. Being self-employed and center-left oriented in the political sphere had a positive impact on attitudes towards the security of Internet voting. Further, the young population (≤ 25) considered the security of Internet voting to be a major obstacle compared to the older age classes (25+). This mistrust has been raised in earlier research (Krimmer et al., 2010) and may be due to cultural factors, current events or discussions in the media, e.g. a recent debate concerning risks associated with surveillance of electronic media by the military intelligence community.

Based on the results, confidence in the security of Internet voting increased as a function of education length. Previous findings indicate that the well-educated tend to have generally more positive attitudes towards Internet voting (Kenski, 2005). In addition, confidence in the security of Internet voting and general acceptance of Internet voting correlated. One may also need to make a distinction between concerns of under- and over-security, where the former can jeopardize the results through electronic voting fraud, while the latter can raise concerns about the secrecy of the ballot or prevent participation through an inaccessible voting system as reported by Germann et al. (2014) about the case of Neuchatel.

However, the aforementioned results should be read with a degree of caution with respect to certain limitations in the current study. Additional factors such as income level, technological proficiency, ethnic background, and geographical distribution (rural versus urban and domestic versus expatriate), could have provided a more holistic picture of the results. In addition, we acknowledge a self-selection bias in our sample. In common with almost every other study in social science we shared the limitation that we could only recruit those who could be reached by the information and were willing to participate. Therefore the study only included participants who were acquainted with the use of computers and social networking sites such as Facebook. Although such bias could lead to a polarization of responses, Oostveen and van den Besselaar (2004) have demonstrated that this needs not to be the case. Those who use the computer and the Internet more frequently seem to judge Internet voting in the same way as those who use the computer less (Oostveen & van den Besselaar, 2004, p. 79).

Furthermore, some groups in the sample were over- (students) and underrepresented (retired, those over 65, and those under 25) compared to the actual electorate. While such over- and underrepresentation could have influenced the corresponding parameters in the results, the data showed no significant effects for age or the retired and student groups with regards to the attitudes towards participation of Internet voting but did reveal that participants’ confidence in the security of Internet voting increased with age, and that students had lower confidence level
compared to other employment groups. On the whole, the conclusions should be tempered by awareness of the slight misrepresentation. However, no available data jeopardize the overall conclusion that the Swedish population would receive proposals of Internet voting with a positive interest, preparedness to participate, and a cautious optimism regarding the security issues.

In conclusion, citizens’ broad adoption of Internet voting may ultimately pave the way towards new forms of participatory democracy. For instance, Internet voting combined with social media could offer citizens democratic opportunities to participate in referendums, protests and initiatives, on local and national levels, for example along the lines of Faraon, Villavicencio, Ramberg, and Kaipainen (2013). Understanding such everyday decision-making behaviors (e.g., forming online groups to work towards a specific aim) and competences can also contribute to the design of participatory online tools that ultimately serve the democratic system by means of active citizenship.

References


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Reflection Papers, Work-in-progress and Ongoing Research Papers

Not Peer Reviewed
How YouTubers saw The Little India Riot

The Role of YouTube in responding to a Riot

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Abstract: On 8 December 2013, citizens witnessed only the second riot in Singapore post-independence, and the first in over 40 years. Involving around 400 rioters and 300 police officers, it resulted in damages to a bus, emergency vehicles, and public property. It has been said to be one of the worst riots in Singapore’s history. News of the riot first broke on YouTube with live footages as the riot unfolded. Using document analysis, the paper analyses responses to the riot by YouTubers, and discusses the role of YouTube in responding to the riot.

Keywords: crisis response, social media, little India riot, civic participation

Singapore is known for her high levels of discipline and order. As such, when a riot broke out in Little India, a neighbourhood frequented by foreign workers in the country, on 8 December 2013 – resulting in damages to rescue and police vehicles as well as injuries, it shocked the nation. Triggered by a fatal accident where a foreign worker from India died after getting run over by a bus ferrying foreign workers to and from the area to their dormitories, the riot lasted two to three hours, and involved an estimated 400 foreign workers.

News and footage of the riot were first circulated on social media, and many versions of the riot unfolded quickly even as rescue workers and combat officers arrived on the scene. Social media played an important role in disseminating information and providing platforms for public participation during and after the riot. Singapore has a generally active social media scene. As reported by Alexa (2014), Facebook and YouTube top Alexa’s Singapore country list for the most visited websites. Social media has become a crucial platform for fostering alternative views and catalysing public participation (Lau, Lin, & Low, 2013; Skoric & Poor, 2013), which can represent a balancing force to the more tightly controlled traditional media (Lin, Bagrow, & Lazer, 2011).

The analysis of this research began when the first tweet about the Little India riot appeared on 8 December 2011. Data relating to the riot were quickly collected in the next 24 hours on Twitter, YouTube, and Facebook. For the purpose of this paper, the analysis in this paper focuses on data collected on YouTube, and used comments generated on 243 videos relating to the riot to analyse how Internet users in Singapore used YouTube to frame the riot. There are two main questions we wish to answer through this paper: how did Internet users use YouTube to respond to the riot, and what was YouTube’s role?
1. Social media in crises

Social media has been particularly useful in crises, especially in soliciting and gathering information quickly. For instance, during the Southeast Asian haze crisis, social media was used to build knowledge with regards to coping strategies such as the supplies of masks and other precautionary advice as well as disseminate information about the level of the hazard from the authorities. However, few have examined social media as a platform for crisis responses, especially in the context of Southeast Asia.

Heath (2010) defines a crisis as ‘risk manifested’ (p. 3) – it is any event, situation, or incident that can cause potential harm to a person, group or organisation. The Little India riot, although it is limited to the physical streets where the riot took place, saw the development of furore online, with Internet users using various social media platforms to express their opinions on the riot and share information about the riot. In multi-racial Singapore where tensions are already running high against the influx of foreign labour in recent years, the riot can cause significant unrest between and amongst various groups in society.

Crisis communication is about the management and interpretation of information throughout the lifecycle of a crisis, from prevention to responding and post-crisis learning (Coombs, 2010). Situational crisis communication theory (SCCT) developed by Coombs (2006) is by far the most used theoretical framework in crisis communication (Cooley & Jones, 2013). It takes into account attribution theory as well as factors such as prior reputation and crisis history can influence perceptions of attributed responsibility for the crisis. In addition, intentions of the public can also influence perceptions of how well the crisis was handled. Three categories of crisis response strategies were identified, making a total of ten crisis response strategies.

- Deny responses: confronting the party or parties involved (attack), denial that the crisis exists (denial), blaming the crisis on another entity (scapegoat)
- Diminish responses: making excuses for the organisation(s) (excuse), minimising the damages and rationalising the decisions made and actions taken (justification)
- Deal responses: singing praises of stakeholders for the good work (ingratiation), expressing concerns for victims (concern), offer money and gifts to victims (compassion), organisation’s or participant’s expressions of guilt about the crisis (regret), and organisation bearing of responsibility for the crisis (apology)

SCCT is appropriate for the context of the Little India riot that involved multiple stakeholders. We also want to investigate the applicability of the response framework to the target users we are examining, i.e. YouTubers who have used the platform to respond to the riot.

2. Method

We used document analysis as the approach to systematically analyse documents (Bowen, 2009). Content analysis is carried out as the method of analysis (Labuschagne, 2003) and yields themes and categories to provide insights on the research questions.

We used Webometric Analyst 2.0 to collect YouTube data. The sampling frame was set from 8pm on 8 December 2014 just before the fatal bus accident happened, till 8pm on 16 December
when user-generated content and comments on the riot died down. We used a combination of keywords (i.e., Little India riot, Singapore riot, SG riot) to conduct the search, which yielded 243 relevant videos and extracted 1334 comments. After manually removing the irrelevant ones, 881 comments as valid responses to the riot were obtained for analysis.

As the focus of the research was on the responses of YouTubers to the Little India riot, the unit of analysis is at the comment level. NVivo 10 was used as the main tool of analysis. We used a hybrid approach for the coding: the SCCT framework provided initial deductive codes, but we also looked for new codes that may be generated by the data. Each comment may generate multiple codes. Two researchers conducted the coding separately. The first round of coding generated a kappa of 0.77. After resolving and discussing the differences the two coders reached agreement on almost all the items resulting in a kappa of 0.91.

3. Findings and Discussion

Other than response strategies depicted in SCCT, we found new types of responses from the data collected in this study although no new response clusters were found. Table 1 provides a summary of findings, with new categories indicated under each response cluster.

<table>
<thead>
<tr>
<th>Response</th>
<th>Description</th>
<th>Refs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DENY</strong></td>
<td>Attack</td>
<td>Three kinds of attacks can be found here: responses confronting parties involved at the scene (the rioters, drivers, rescue forces, riot police), the second relate to post-crisis management by authorities, and the third are attacks on each other as commenters.</td>
</tr>
<tr>
<td></td>
<td>Denial</td>
<td>Expressions of disbelief and doubts that the crisis is real.</td>
</tr>
<tr>
<td></td>
<td>Scapegoat</td>
<td>These responses are mostly targeted at the ruling government’s immigration and population policy, but also include pointing to certain individuals such as ‘Anonymous’ as a possible mastermind behind the riot.</td>
</tr>
<tr>
<td></td>
<td>Lament (new)</td>
<td>Lamentations on how conditions in society are no longer as good as before e.g. Singapore is not as peaceful anymore.</td>
</tr>
<tr>
<td><strong>DIMINISH</strong></td>
<td>Excuse</td>
<td>Responses that made excuses for either the rioters or authorities involved in the rescue or policing.</td>
</tr>
<tr>
<td></td>
<td>Justification</td>
<td>Responses that focused on justifying the decisions and actions made, mostly by authorities.</td>
</tr>
<tr>
<td></td>
<td>Redirection (new)</td>
<td>Responses that were of a ‘diminishing’ nature, which redirecting attention from the riot to other factors or things happening in other places, e.g. references to the political crises in Bangkok and Malaysia, highlighting issues not core to the riot such as the lack of on-site, real-time reporting from mainstream media.</td>
</tr>
<tr>
<td><strong>DEAL</strong></td>
<td>Ingratiation</td>
<td>Expressions of thanks and pointing out the good work and sacrifices of police officers and rescue workers.</td>
</tr>
<tr>
<td></td>
<td>Concern</td>
<td>Most of these are concerns for the rioters who are foreign workers in Singapore, and the welfare of foreign workers generally.</td>
</tr>
<tr>
<td></td>
<td>Compassion</td>
<td>Offer of help to do something about the challenges that foreign workers face in Singapore as well as the consequences facing the rioters, e.g. providing training and social activities.</td>
</tr>
<tr>
<td></td>
<td>Regret</td>
<td>Responses reflecting regret and sadness about the riot.</td>
</tr>
</tbody>
</table>
In order of dominance, deny response cluster of responses was the most dominant, followed by deal, and diminish responses. Within the deny cluster, most responses were of a confrontational nature, implying that individuals who used YouTube were using the platform to express their anger, dissatisfactions and criticisms although the target recipients were not the same.

Denial responses, as well as questioning responses were mostly located in the first few hours of the riot, and this was largely because both the mainstream media and authorities released full reports and information by the next day. No responses were found that came from participants at the scene of the riot: neither the rioters, victims (i.e. bus driver and conductor who were attacked by the rioters); rescue workers or police force participated in commenting on the riot on YouTube. This meant that YouTube was used entirely by ‘outsiders’ to the riot; individuals who were not involved in any way, but somehow felt that they needed to make sense of the riot.

### 4. Conclusion, limitations and future work

The paper has demonstrated so far that the response strategies under SCCT are applicable to individual users. Under this new context, we found new response categories under each response cluster which may be further applied and validated to other scenarios involving citizens. In addition, we have also demonstrated the use of YouTube as a means to engage in both civic and political participation.

One of the limitations to the study is that YouTube is in no way representative of all other platforms. We must be mindful of the functional attributes of YouTube compared to others—such attributes can also influence the social interactions and participation of users. Analysis of responses collected from other social media platforms should help to provide further validation.

Second, the voice of the foreign workers (which represent the rioters) is missing from the data. It is not because they do not use social media, but because they are usually passive: they read but do not comment (N. Pang, personal communication, 28 April 2014). Given the intensity of attacking responses including racially-charged, uncivil comments it is quite plausible that these responses would have affected such users in some ways. Yet there is very little we know about this. Future work should focus on the passive users of social media who are nonetheless affected by the social media rhetoric related to them.

For the purpose of brevity and clarity the paper has not discussed the information processing implications of the data – but this great relevance for the context and scope of the data we have
Reflection Papers, Work-in-progress and Ongoing Research Papers

collected. Future analysis should also include this to deepen knowledge in the dialogical connections between information posted (i.e. videos) and the actions (i.e. responses) that follow.

References


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Politics as Usual or Transformation?
Unravelling the “Social Embeddedness” of Social Media in Political Conflict and Participation

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Abstract: This research explores the published literature on social media and political participation in East Asian and South America; two regions with the highest rate of social media participation. This research is centered the following questions: (1) how are political parties in these regions using social media to build online communities? And (2) what are the regional differences, if any? Preliminary findings reveal the “social embeddedness” of social media and highlight the complex interaction of agency, mass media, existing civic culture, and institutional environments.

Keywords: democratization, political parties, representation, social media

Even though, more than half the world’s people are now living under democratic systems, international surveys have found that support for democracy is on a decline\(^1\). The 2013 Freedom House International survey\(^2\), found that global freedom dropped in 2010 for the fifth year in a row. This waning support is often attributed to citizens’ frustrations with traditional representative institutions such as political parties and legislatures. However, research shows that although there is a decline in traditional forms of participation such as party membership and voting in elections, people are still interested in participating through new forms of participation such as protesting around certain “issues” facilitated by social media (Pattie et al., 2003). The World Protests 2006-2013 study found that since 2010, the number of protests and protestors making specific policy demands and expressing impatience with their government had increased\(^3\).

\(^1\) Germany’s Bertelsmann Foundation: uses data examining democracies’ ability to function, manage government, and uphold freedoms to produce what it calls the “transformation index.” The overall goal of the index is to analyze the state and quality of democracy in every developing nation that has achieved some degree of freedom. To do so, Bertelsmann looks at a range of characteristics including the stability of democratic institutions, political participation, the rule of law, and the strength of the state, among other areas. Economist Intelligence Unit’s (EIU) “index of democracy,” only further confirmed the decline. The EIU’s annual survey of the entire world analyzes democracy using categories for electoral process, pluralism, political participation, political culture, functioning of government, and civil liberties including press freedom and freedom of association.

\(^2\) Freedom in the World 2013: Democratic Breakthroughs in the Balance

This has led to a growing interest among scholars and practitioners regarding the relationship between social media, political participation, and democracy (e.g., Bimber, 1998, 1999; Budge 1996; Hacker and van Dijk, 2000; Weare, 2002). So far, these studies have produced contradictory affirmations regarding social media ability to promote democracy and political engagement. In emerging democracies and countries with limited political freedoms, digital technologies (including social media) have been found to be “liberating technologies” (Diamond, 2010), ushering an era of new politics of participation and public spheres (Rheingold, 1993; Schwartz, 1996; Hill & Sen, 2005). From Turkey, Malaysia, Philippines, Thailand, and Indonesia’s recent 2014 Presidential elections, empirical evidence shows how social media can maximize voter volatility during elections (Howard, 2010: 3). These cases show that in countries with limited freedoms, limited political space, and lack of effective political participatory channels, social media can have a more dynamic impact by providing an avenue for groups to express their views and mobilize (Tan, 2010). On the other hand, in older advanced Western democracies, social media have been found to reflect “politics as usual”, in that once nations have achieved a qualitative leap toward liberalization; the dynamic impact of social media tends to fade (Margolis & Resnick, 2000; Bimber and Davis, 2003).

A neutral and more practical approach to understanding the utility of social media in the political realm has emerged. This perspective warns against a technological deterministic view of social media and argues that the simple availability of the new technologies is not enough to promote the meaningful use of technology for politics. Also, in addition to the problem of digital divide, Norris (2001) coined the term “democratic divide” to highlight how people’s differential usage of social media for politics creates an unequal distribution of power and influence in political systems. Lastly, scholars have argued that this horizontal and social character of social media may have larger implications in authoritarian regimes, because political communication flowing through social networks is more difficult to control than traditional websites are.

How can we begin to understand these ambiguities? First, context matters in understanding the utility of social media. Because social media are inherently socially embedded within deeper and richer existing political and civic cultures and institutional environments, studies need to define how these factors limit or promote the utility of social media in politics. Second, we need to look at nations with different political cultures from Western nations in order to examine whether assumptions about social media in those countries apply to a variety of country experiences. Finally, because of the multimodal nature of social media and in order to avoid technological determinism, studies should delineate the three functions that social media service as an (1) information source, (2) communication medium, (3) and virtual public sphere. Therefore, this reflection paper highlights the under-researched area of interconnection between new technologies and the specific cultural and political context of emerging democracies in East Asia and South America.

1. Social and Media Freedom in emerging and “difficult democracies” in East Asia and South American

Extensive comparative work has found that political participation depends greatly on institutional arrangements, political circumstances, and levels of socioeconomic development (Jorba and Bimber, 2012). Although it’s hard to compare regions as diverse and large as East Asia and South America, there are several key traits that they share which make them fruitful comparisons. First,
regarding socioeconomic development only South Korea, Taiwan, Chile, and Argentina are considered countries with a high Human Development Index. Generally, East Asian democracies enjoy less inequality, more wealth, and greater youth development, than do the democracies in South America. Likewise, both regions have their share of stable democracies; Chile, Uruguay, Brazil, and Suriname in South America and South Korea, Taiwan, Mongolia, and Indonesia in East Asia. The other democracies in this sample, are often deemed struggling democracies because they have transitioned to hybrid regimes which combine elements of autocracy and democracy (Schmitter, 1994), semi democracies, illiberal or delegative democracies, or competitive authoritarian, rather than consolidate democracy (Thailand, Philippines, Argentina, Bolivia, Peru, and Paraguay).

There is also great variation in level of freedom between and among regions. Table 1 below shows that according to Freedom house, Chile, Uruguay, Taiwan, and Mongolia rate the most free; while Cambodia, Thailand, Paraguay, and Ecuador are among the least free. When exploring the percentage of Internet users per country and the United Nation’s Digital Opportunity Index (DOI), often used to analyze the development status and trends of an information society; South Korea, Taiwan, Chile, Argentina, and Uruguay have the highest percentage rate of Internet users and also the highest DOI. The East Asia countries of: Cambodia, Indonesia, Mongolia, and Thailand had the lowest percentage rate of Internet users; while Cambodia, Indonesia, Mongolia and Bolivia has the lowest.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Country Freedom</th>
<th>Press Freedom</th>
<th>Corruption Level</th>
<th>Internet Users (%)</th>
<th>Digital Opportunity Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>1.5</td>
<td>26</td>
<td>61</td>
<td>80.00</td>
<td>.79</td>
</tr>
<tr>
<td>Cambodia</td>
<td>5.5</td>
<td>66</td>
<td>20</td>
<td>6.00</td>
<td>.17</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.5</td>
<td>49</td>
<td>32</td>
<td>15.82</td>
<td>.34</td>
</tr>
<tr>
<td>Mongolia</td>
<td>1.5</td>
<td>37</td>
<td>38</td>
<td>17.70</td>
<td>.35</td>
</tr>
<tr>
<td>Philippines</td>
<td>3.0</td>
<td>43</td>
<td>36</td>
<td>37.00</td>
<td>.43</td>
</tr>
<tr>
<td>South Korea</td>
<td>1.5</td>
<td>31</td>
<td>55</td>
<td>84.77</td>
<td>.82</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.0</td>
<td>62</td>
<td>35</td>
<td>28.94</td>
<td>.48</td>
</tr>
</tbody>
</table>

4 Data for 2014. HDI = Human Development Index: high (HDI ≥ 0.8); medium (0.5 ≤ HDI < 0.8), low (HDI < 0.5). The HDI is composed from data on life expectancy, education, and per capita gross domestic product. UN Development Programme data (http://hdr.undp.org/en/).


6 Ibid


9 “World Information Society Report 2014” published by the International Telecommunication Union (ITU). Digital Opportunity Index (DOI), an index comprising of three sub-indexes (infrastructure, opportunity and application) used to analyze the development status and trends of an information society.
Cambodia and Paraguay are the only countries in the sample with a one party system. All other countries, have multiparty systems although they vary in regards to how institutionalized they are. Electoral volatility is an variable often one of the variables use to measure party system institutionalization (Mainwaring & Zoco, 2007; Randall and Svasand, 2002). According to this figure, Taiwan, Chile, Uruguay, Mongolia, and Brazil have the most stable party systems while Peru, Philippines, Bolivia, and Ecuador have the least stable party systems and hence high rates of electoral volatility.

Figure 2: Electoral Volatility in Sample Countries
2. Tying it all together - Politicking and Social Media in Perspective

I'm currently developing a database of all the active political parties within the research sample. I am developing an Activity Level Index which factors how active and innovative the political party’s social media strategy is along with how active and engaged their constituents are in their online environment. The countries with the highest Activity Level Index are: Chile, Brazil, Argentina, Uruguay, Taiwan, Indonesia, and South Korea. The countries with the lowest Activity Level Index are: Bolivia, Paraguay, Mongolia, and Thailand.

When examining these factors against the socioeconomic ones discussed earlier, several preliminary conclusions come to mind. First, democratic and party system stability does not seem to be a predictor to how well political parties and their constituents will interact online. Although, Chile, Uruguay, Taiwan, South Korea, and Indonesia are among the most stable countries who also have the highest Activity Level Index, Argentina has a high Activity Level Index but a struggling democracy. Likewise, Mongolia is among the most stable and freest East Asian democracies, however, political parties and constituents are not actively using social media for politicking online. Indonesia is an interesting case, as its Activity Level Index is high despite some limits to country and press freedom. Second, there seems to be a small correlation between level of country and press freedom and successful party use of social media and constituent online engagement. Third, regarding the DOI scores, there seems to be a correlation between how active political parties and their constituents are online and this factor. This can be seen in the case of Mongolia and Thailand, which has a low Activity Level Index and DOI score. This highlights the fact that although a country maybe stable and free such as Mongolia, without the proper technology infrastructure the utility of social media for politicking will still be at the level of a country with an unstable democracy and limited freedoms. An interesting finding here is that Indonesia has among the lowest DOI score, yet among the highest rate of successful use of social media by political parties and constituents.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Activity Level Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taiwan</td>
<td>6 – Major parties active and savvy, minor parties investing less energy</td>
</tr>
<tr>
<td>Cambodia</td>
<td>5 – National Rescue Party most active with good constituent engagement</td>
</tr>
<tr>
<td>Indonesia</td>
<td>7 – Most parties trying to actively use social media, but only a few standout parties with successful parties online.</td>
</tr>
<tr>
<td>Mongolia</td>
<td>3 – One party is active, but online community is not very vibrant.</td>
</tr>
<tr>
<td>Philippines</td>
<td>5 – Most parties participating on social media, but communities and engagement is not active or consistent</td>
</tr>
<tr>
<td>South Korea</td>
<td>6 – Three parties standout as using social media in innovative ways and maintaining active communities</td>
</tr>
<tr>
<td>Thailand</td>
<td>3 - Democrat Party is among the few online. They are the most active.</td>
</tr>
</tbody>
</table>
Table 2b: Activity Level Index for Countries in South America

<table>
<thead>
<tr>
<th>Countries</th>
<th>Activity Level Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>8 – Most parties active to varying degrees of success. Some parties are innovative and maintaining active communities.</td>
</tr>
<tr>
<td>Argentina</td>
<td>7 – Most parties active to varying degrees of success – most do not have active communities. Few standout parties.</td>
</tr>
<tr>
<td>Bolivia</td>
<td>3 – Most parties not active and those using it, struggle to maintain engaged communities.</td>
</tr>
<tr>
<td>Peru</td>
<td>4 – Most parties not active or struggling to engage constituents. Two parties are successful and one is innovative.</td>
</tr>
<tr>
<td>Brazil</td>
<td>8 – Everyone has an active community online. Some parties are more effective than others, but overall constituents seem engaged.</td>
</tr>
<tr>
<td>Ecuador</td>
<td>4 – Several parties are active, but only one has an active online community. Other parties do not use social media.</td>
</tr>
<tr>
<td>Suriname</td>
<td>2 - Some parties have started accounts, but effort is minimal and communities not very vibrant</td>
</tr>
<tr>
<td>Uruguay</td>
<td>6 – Several parties succeeding on social media, but most using and not putting a huge effort.</td>
</tr>
<tr>
<td>Paraguay</td>
<td>3 – Most have social media accounts, only one is active. Others not very active and communities are not vibrant.</td>
</tr>
</tbody>
</table>

References


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A PhD Candidate in Comparative Politics, Wilneida collaborates on technology, research, and communities which empower people to become more creative, more effective, and more informed. She can be found at: wilneida.com and @wilneidanegron.
Online Participation and Public Discourse

A case Study in Singapore

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Abstract: Facebook, as a social media has influenced people’s life in significant ways. One way Facebook brings social impact was to allow for grassroots movement. Singapore as a multicultural/multiracial society has historically strove for racial harmony in the society. Due to policies on maintaining racial harmony, public discourses have always been supportive for “politically correct” actions and discourses. However, in recent years, increasing number of new immigrants from Mainland China presented challenges to this commonly understood social code of keeping all ethnic/racial groups equal and maintaining good intergroup relationships. Despite the policy on racial harmony and the ban in discriminating comments from different ethnic/racial/national groups, events such as August 21, 2011’s Cook and Share a Pot of Curry Day in Singapore on Facebook attracted overwhelming responses from Singaporeans to express their disapproval of the impact new immigrants from China brings to Singapore society. This study aims to analyze the ways in which Facebook allows people to actively participate in public affairs, empowers silenced voice to be heard, as well as exhibit new interaction patterns and bring about both positive and negative social consequences through case study of a catalyst that triggered August 21, 2011’s Cook and Share a Pot of Curry Day in Singapore.

Keywords: online participation, grass root movement, intergroup relations

On August 8, 2011, a news article was posted online in Singapore highlighting an increase in neighbor disputes that were handled by the Community Mediation Center (CMC) (Quek Sue Wen, 2011). In the case sample provided, a complaint was made by a foreign family from the Peoples Republic of China regarding the smell of their native Indian Singaporean neighbor’s curry. The article stated that the Singaporean mediator resolved the problem by telling the local family they could only cook their fragrant dishes when their foreign neighbors were not at home. This mediation case example was not the focus of the article; in fact it only occupied 6 of the 38 sentences from the content of the article. Yet during the following days, over 320 comments were posted in response to the story, showing a range of support and outrage over the mediation agreement. Many felt that the decision was biased toward foreigners at the expense of Singaporeans (Quek Sue Wen, 2011).

In response to the outrage, which was a response to readers’ perceptions of an unfair mediation decision, several local Singaporeans started a Facebook page called Cook a Pot of Curry. The initial purpose of this Facebook event was to encourage Singaporeans to cook curry and let the aromas permeate the entire island as an act of defiance toward foreigners infringing on Singaporean’s rights (Tessa Wong, 2011). But one week later “the event suddenly shifted in its tone. Suddenly, it
became Cook and Share a Pot of Curry Day [emphasis added]. The defensive rhetoric was scrubbed from the event description, and replaced with soothing pleas to include foreigners in the event. Anti-foreigner posts on the event page were also deleted.” (Tessa Wong, 2011). The new tone of the event seemed to encourage Singaporeans to cook curry and invite their foreign neighbors into their homes to "celebrate curries as part of our way of life, and to share this celebration with those who are new to our shores." (Joanne Chan, 2011). Regardless of the initial intent, an estimated 57,000 people from all over the world pledged their support to the event, and within weeks there were similar spin-off “Curry Day” Facebook sites in Australia, Hong Kong, and China.

This study aims to analyze the ways in which Facebook allows people to actively participate in public affairs, empowers silenced voice to be heard, as well as exhibit new interaction patterns and bring about both positive and negative social consequences through case study of a catalyst that triggered August 21, 2011’s Cook and Share a Pot of Curry Day in Singapore.

1. Literature Review

Scholars have sought to understand the impact of such new media affordances on social movements. Termed as an “instrumental” view of new media (Shirky, 2011), literature abound in the potential of the new information and communication technologies (ICTs) to transform the information flows and interactions between peoples. The new social media was quickly recognized for its ability to cement community identity and collaboration, by reducing the costs of organizing and increasing the efficacy for like-minded individuals to rally around a common cause (Shirky, 2008). More importantly, social media was seen to aggregate the power of the populace in challenging the institutional bias of the established mass media; where mass media have traditionally been co-opted by the institutional powers in governments or corporations, the horizontal nature of communication and information flows across individuals in social media implied an ability to access alternative perspectives different from the status quo (Benkler, 2006; Shirky, 2008).

The “instrumental” view of new media as a tool to mobilize citizenry for collection action and public speech gradually evolved into a more holistic “environmental” view - that social media can strengthen the public sphere by giving the citizenry “access to conversations” that allow them to form their own political opinion and voice (Shirky, 2011). The monopoly powers of the state for censorship and propaganda were consequently eroded, giving rise to a networked public sphere (Benkler, 2006; Shirky, 2008, 2011). As a “conservative dilemma” for the governing elite (Shirky, 2011), new media was thus seen to liberate citizenry with political power for change and freedom.

Optimism on the new “power to the people” was necessarily tainted with caution, though to a lesser degree. The most notable critique was Morozov, who coined “slacktivism” as the delusion of the supposed freedom that the Internet brings to social movements (Morozov, 2012). Social media was seen to possess limited real life impact while enhancing the feel-good factor of its participants. Worse, the easy arm-chair activism afforded online may actually reduce actual, off-line mobilization and cripple the social movements it purport to serve (ibid). In the following case study, the power of Facebook for liberation and the limited mobilization is observed and discussed.
2. Method

The data for this project included all reader responses to news stories, blogs, and Facebook posts that occurred between August 8-30th, 2011, that addressed the events surrounding the Curry Day event in English.

Riffe et al (2005) note that content analysis that is systematic, replicable, and hopefully theory driven, has two goals: to describe “communication and to draw inferences about its meaning or infer from the communication its context of production or consumption” (p. 33). It has been used to examine new media and the dynamic environment of the World Wide Web. It has been found to be a stable research technique to apply to online communication (McMillan, 2000). It has been used in online discussion groups to examine the content of asynchronous discussion boards (De Wever et al, 2005; Chen & Looi, 2007). Content analysis' acceptance of unstructured material, ability to cope with large volumes of data, unobtrusiveness, and the fact that it is content sensitive are all advantages noted by Krippendorff (1980). As such, this method of analysis is well suited to analyzing online posts left by commenters on online news articles.

The August 8, 2011 article will be referred to in this research as the catalyst event. Open coding was used to analyze 320 posts. For purposes of this research, those who commented on this news article will be referred to as commenters, and each commenter’s total comments will be referred to as a post. Within each post there were various comments that were labeled according to themes. Due to the fact that posts themselves vary in length from one word to several paragraphs and contain multiple separate and overlapping ideas, posts were not a suitable unit of analysis. This research will use “idea as a unit of analysis instead of the complete message itself” (Chen & Looi, 2007, p. 22). The term idea will be used interchangeably with the term concept.

3. Finding

Shoemaker and Reese (1990) as cited in Riffe et al (2005) notes that most content analysis “lacked a theoretical framework linking the content studied to either the antecedents or consequences of the content” (p. 12). McMillian (2000) also advised that future researchers need to move past simple descriptive research to make inferences as to the antecedents and effects of communication. This study attempts to address this concern by linking the content of the catalyst event to what commenters considered the cause of the problem (antecedents) and the reactions by commenters and their proposed solutions (consequences).

3.1. Antecedents

Three categories provided answers to the first research question regarding commenters’ reactions to the initial mediation event: emotions, criticisms and support. First, explicitly verbalized feelings and exclamations were categorized as strong feelings in order to form a general impression as to the tone of the commenter’s posts. Second, open criticisms and defense of the two families involved in mediation were grouped into one category to allow easier identification of specific targets of negativity in many of the posts. Regardless of where their frustrations were directed, it was clear that the individuals who chose to comment did so because they had a strong emotional reaction to the mediation event as described.

The primary target of negative comments was Master Mediator Madam Marcellina Giam, because the catalyst article stated that “Mdm Giam got the Indian family to agree,” directly
implicating Madam Giam as the culprit. Eight days after the initial event, Singapore's Minister of Law K Shangmugan clarified that "parties involved in the mediation of the "curry" incident were not given a recommendation nor forced into settlement. Instead, they are encouraged to work out a solution that both are comfortable with." (Chan, 2011). He also noted that the case in question happened in 2004 or 2005, though did not elaborate as to why the case was released to the news just days prior to Singapore's National Day and one month prior to Singapore's Presidential Election. It must be emphasized that these negative comments were made prior to the correction of misinformation.

After filtering out criticisms of Madame Giam and the CMC the targets of negativity in the remaining posts were the PRC family. It is important at this point to distinguish criticisms of the PRC family's complaint and criticisms directed at all mainland Chinese families or immigrants in general. Many commenters specifically criticized the PRC family involved in the mediation event, accusing them of being "out of their minds" or having bad attitudes toward their neighbors. Others felt the PRC family were behaving "above their station" and acting superior to their native Singaporean neighbors. This implies a clearly defined hierarchy of status, with local or native Singaporeans occupying a higher status than immigrants of any kind. Deeper analysis and further discussion is warranted regarding the perceived lower status of immigrant families and foreign workers.

Many commenters defended and supported the Singaporean Indian family involved in the mediation event specifically, and felt they deserved an apology from the PRC family as well as the CMC for being treated unfairly and without respect. The Singaporean Indian family was called "generous" and "highly commendable" for being willing to accommodate their neighbor's request. But some commenters criticized the Indian family for agreeing to the mediation decision, or settling on an unfair decision. They felt that the affected party, if in the right, needed to stand up for their rights.

Table 1: Antecedents

<table>
<thead>
<tr>
<th>Category</th>
<th>Concept</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feelings</td>
<td>Shock</td>
<td>The response from CMC in the curry dispute is shocking!</td>
</tr>
<tr>
<td>Feelings</td>
<td>Disgust</td>
<td>It is simply disgusting to hear that such a complaint was made and even more sickening to hear the final judgment posed by CMC.</td>
</tr>
<tr>
<td>Feelings</td>
<td>Shame</td>
<td>Really shameful that Singaporean Indians are brushed aside like nothing, with no value whatsoever.</td>
</tr>
<tr>
<td>Feelings</td>
<td>Disappointment</td>
<td>Real disappointment. Are these the kind of standards that CMC adopt in order to close cases?</td>
</tr>
<tr>
<td>Criticisms</td>
<td>Mdm Giam</td>
<td>She is NOT FIT to work at such establishments... no wonder the public sector gets bad review because of employing such characters.</td>
</tr>
<tr>
<td>Criticisms</td>
<td>Mdm Giam's decision</td>
<td>I'm sorry but Madam Marcellina Giam your solution to the problem is shocking and smacks of unfairness,</td>
</tr>
<tr>
<td>Criticisms</td>
<td>CMC generally</td>
<td>This case really undermines the professional argument for having Community Mediation Center because of the lack of professional handling of this response.</td>
</tr>
<tr>
<td>Criticisms</td>
<td>PRC family</td>
<td>Who does this NEW chinese family think they ARE - KING/QUEEN from CHINA?</td>
</tr>
<tr>
<td>Criticisms</td>
<td>Indian Singaporean family specifically</td>
<td>I also wonder how come the Indian family can put up to such unthinkable and non-culturally sensitive resolution.</td>
</tr>
<tr>
<td>Support</td>
<td>For Indian Singaporean family specifically</td>
<td>The Indian family has been most accommodating by shutting their doors and windows when they are preparing the dish to prevent the curry aroma from &quot;attacking&quot; the complainant's flat</td>
</tr>
</tbody>
</table>
Reflection Papers, Work-in-progress and Ongoing Research Papers

3.2. Consequences

Four categories provided answers to the second research question regarding commenters’ proposed solutions to the problem; simple solutions, education solutions, dramatic solutions, and calls for action. Simple solutions included recommendations for more education or training for foreigners and neighbors in order to prevent disagreements from escalating to the point of needing mediation, and also simple solutions that commenters felt could have prevented this problem from escalating.

The simplest solutions involved the immigrant family being more tolerant of their neighbor’s cooking habits, and instead of asking the neighbor, who was local, to adjust and adapt to the immigrant family’s requests, that the immigrant family should instead try to adapt and adjust to the cultural norms of Singapore. In particular, commenters suggested that the PRC family close their doors and windows, turn on a fan, or go for a walk when their neighbors were cooking, as opposed to asking their neighbors to do so. Some also suggested relocating to another flat or neighborhood where there were less offensive smells, though this is easier said than done. Both of these examples place the responsibility for change on the shoulders of the immigrant as opposed to the citizen parties.

Several commenters felt it was the mediator or CMC’s responsibility to educate the complainant instead of agreeing to mediate for them. Several commenters also suggested that the foreign family should be sent to a class on Indian culture, to a tour of Little India, or to an Indian cuisine appreciation class in order to “educate the PRC immigrants about the various practices of our multi-racial country that have made Singapore what it is today.” Emphasis was repeatedly placed on the immigrant family being taught about local Singaporean culture, but very few comments encouraged reciprocity of cultural knowledge, i.e. Singaporeans learning about the culture of the large immigrant communities in residence.

Many more dramatic solutions can be considered more negative and punitive, and warrant further exploration regarding topics such as xenophobia, ethnocentrism, and hate speech laws in Singapore. Some commenters suggested that the PRC family should voluntarily leave Singapore and return to their home country if they found the smells or other cultural practices in Singapore unbearable. Another batch of commenters felt that whether or not the PRC family wanted to leave, they should be kicked out of Singapore with their immigration passes revoked. Many of these statements involve strong negative stereotypes of immigrants in general and immigrants from mainland China specifically.

Calls for action should give some indication as to what commenters wanted to see happen as a result of all of the attention being paid to this event. Several commenters called for the CMC or Madame Giam to apologize to the Singaporean Indian family, while others wanted the CMC mediation decision nullified or reversed, and others still just wanted the CMC to do something to address the commenters’ concerns. Another group of commenters specifically called on the Singapore government in general or the ruling People’s Action Party parliament members specifically to make changes on a systemic level to prevent problems like this from occurring again. Many commenters seemed specifically frustrated feeling that Singaporean citizens’ lives are being dictated by foreigners in Singapore. “You can bring in all the foreign talents, but please don’t alienate us for your own greed.” This last comment addresses the concern that foreigners are being recruited to work in Singapore in order to strengthen the economy which may result in more wealth for specific individuals.
4. Conclusion

The new media platform has provided citizens a virtual space for self-expression. Within the constraints of policies around race and freedom of speech, Singaporeans were able to create a grass root movement to express solidarity and concerns for social issues. Despite inter-ethnic relations being considered a sensitive topic in Singapore, it does not appear to have dissuaded commenters from speaking out online and indirectly or directly addressing issues of racial harmony, assimilation, multiculturalism, and foreign policy. However, the use of new media does not warrant an escape from the larger institutional force. It was observed that the tendency to rely on government policy and initiatives to solve social issues was strongly expressed. Furthermore, Cook and Share a Pot of Curry has become an annual celebratory event, shifting its initial momentum for self-expression and participation for public affairs. Future research can look into the long term use of effect of social media in grass root movement.

References


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Differential Opinions among Hong Kong Online Social Media, Traditional News Media, Opinion Polls and the Government Consultations on Methods for Selecting Chief Executive in 2017

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Abstract: The purpose of this study is to compare the opinion among Hong Kong online social media, traditional news media, opinion polls and the government consultations on methods for selecting chief executive in 2017. (Electoral reform) Data collected from the following four sources will be compared: 1) news article collected from major online news outlets; 2) online opinion expressed in popular social media sites such as Facebook, forums and micro-blogs; 3) Public opinion polls; 4) comments collected from the government consultation. Data collected from the four sources will be operationalized into supporting or not a list of agenda such as supporting civil nomination. The distribution of these agenda among the four sources will be compared. The current study is still a work in progress.

Keywords: online opinion, media studies, political participation

Hong Kong is globally top-ranked as a well-developed society in the use of information technology (International Telecommunication Union, 2009) and has a high penetration of personal computer ownership and Internet connection (Census and Statistics Department, 2012). According to the Census data, computer and Internet penetration of the 10-24 years Hong Kong citizens are virtually 100%. Moreover, Hong Kong people are well known to be sophisticated technology users. According to the Communications Authority in Hong Kong, there were over 11 million 2.5G and 3G/4G mobile subscribers by May 2013, i.e. 1.5 mobile subscribers per inhabitant on average.

With such a large population of sophisticated users of new media technologies, Hong Kong has been experiencing a drastic change in the ways in which citizens engage with the socio-political environment, particularly via novel ways of online political engagement and opinion expression.

In recent years, mass political activities, such as protests against the financial approval of the express rail link project (Jan 2010), the 2012 political reform proposal (Jun 2010), and the 2011 “Occupy Central” campaign (Oct 2011) and the 2012 anti-national education campaign (Sep 2012),
have triggered much local and global attention over the ways in which young people—the so-called “post-80s” or even “post-90s” generations—and many “critical citizens” (Norris, 1999) become active participants in policy debate on a variety of new media platforms and through which they are mobilized to join the political activities. These modes of civic participation can broaden the conventional meaning of public opinion and establish a new avenue for enriching political discussion and societal debates, increasing diversity of opinions and promoting pluralism (Organization for Economic Co-operation and Development, 2007).

Moreover, the emergence of public opinion on the new media has posed challenge to the government’s existing modes of public engagement and political deliberation. Taking one recent Hong Kong example, discontent against the introduction of national education curriculum was found widespread on the Internet in 2012 summer (triggered by a controversy national education textbook) after a long due process of formal consultation and legislation. Under the pressure of wave of protests, in October 2012, Hong Kong government decided to revise the mandatory three-year plan and allow schools to decide their implementation progress.

Conventional way of public opinion collection is done through telephone survey, which is commonly used by government and organizations to track public opinion, which include values, attitudes, comment on social policy, or approval rating (Lavrakas, 2008). This research methodology is typically undertaken by using probability based sampling, and the result obtained from randomized samples is, theoretically speaking, a representative snapshot of the population. Despite its popular use, pollsters are struggling to obtain good quality phone survey result because of decreasing domestic phone utilization in the household population (due to growing use of mobile phones), increasing nonresponse rates, and growing response bias caused by self-reporting (Kempf & Remington, 2007; Kreuter, 2009).

Many studies attempt to investigate the relationship between traditional media and political participation in Hong Kong (see review by Lee & Chan, 2009). These studies routinely found positive relationships between traditional media use (newspaper and television) and political knowledge about elections (Guo, 2000) or between media exposure and the likelihood of voting (Cheung, Chan, & Leung, 2000).

1. Online opinion, public opinion and traditional media

Our previous study raises a theoretical question that is important to the understanding of the interaction between media and politics in Hong Kong: How can we account for the correlation between population-based opinion and the non-representative samples of online expression? What is the role of mass media in shaping public opinion, online opinion, and/or both concurrently?

Previous study has indicated a set of theoretical explanations on the interplays between online opinion, offline public opinion, and mass media (Fu & Chan, 2013). Three plausible explanations are suggested: 1) both online and offline opinion are mainly driven by same group of opinion leaders; 2) their relationship is confounded by the mass media impact; 3) both results are caused by same sources of systematic error.

First, if we draw on the two-step flow of communication model (Katz, 1957), opinion leader is a group of people who comment on social issues publicly and are interviewed regularly in radio, television, newspaper, or magazine. Opinion leader’s view is important to the formation of public discourse, and consequently can direct the general population’s opinion. This group of elites can
extend such process of opinion formation from offline to online environments and reinforce their influential power across a variety of offline and online media. Their online opinions can therefore be used for estimating overall population’s view.

The second explanation is that the correlation of public opinion (primarily from surveys) and online sentiment is confounded by mass media impact. Media research, such as agenda setting and media framing research, has well established evidence to support that public opinion is profoundly shaped by news media (Kepplinger, 2008). But on the other hand, news information are one of the main sources of the social media content in Hong Kong and online content can set news media’s agenda (Fu & Chau, 2011). Therefore, we would suspect that if normal citizen as well as online news user are both exposed and strongly influenced by news media, both phone survey results and online sentiment may be then two different indicators of the same underlying variable: attitude of the news media.

Third, there may be methodological and sampling biases in both research designs. Both phone survey results and social media content may be imperfect operationalization in public opinion measurement, i.e. deviated from the “true value” systematically, therefore both are outcomes of systematic error.

2. Research questions

• RQ1) What are the pattern and characteristics of the Hong Kong online opinion on some selected policy areas?
• RQ2) Based on the observed pattern and characteristics (e.g. time trend, keyword analysis, and social network analysis), how are the formation of online opinion associated with the policy development and the government-society interaction?
• RQ3) Using the developed online opinion indicators (e.g. time trend and sentiment analysis), what is the empirical connection between online public opinion and the public incidents?
• RQ4) Do mass media and online opinion sphere in Hong Kong share same group of opinion leaders?
• RQ5) How to explain the interaction between online opinion, public opinion (phone survey-based), and mass media?

3. Methodology

The current study is still a work in progress and the full result will be presented in the conference if accepted. This study will use the text mining to study opinion on electoral reform in 2017 collected from the following four sources:

1. news article collected from major online news outlets;
2. online opinion expressed in popular social media sites such as Facebook, forums and micro-blogs;
3. Public opinion polls;
4. comments collected from the government consultation.
The topic of electoral reform is selected because it is the most polarized issue in Hong Kong. Data collected from the aforementioned four sources will be operationalized into supporting or not a list of agenda such as supporting civil nomination. The distribution of these agenda among the four sources will be compared.

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Social Media and Red Tape in Japan

Administrative Interruptions in Building Civil Society Online Communities in Japan: The case of the Tsukuba Civic Activities Cyber-Square

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Abstract: This paper examines how the following four types of administrative delays affects online community development: 1) circular letters for sanction within local governments, 2) neighborhood association related concerns, 3) “Act on the Protection of Personal Information” related privacy concerns, 4) annual personnel reshuffles/reassignments. Delays and interruption in administration by these four types of “red tape” have been observed from January 2012 through May 2014 in the Tsukuba Civic Activities Cyber-Square. This paper suggests that these four types of “red tape” may inhibit growth of online communities and lower the level of public engagement in those environments.

Keywords: Social media, local government, public administration, public sphere, red tape

Acknowledgement: This study was supported by JSPS KAKENHI Grant Number 25330394.

This paper examines how rules, regulations and procedures that are common in Japanese local governments may delay the development and maturity of online communities aimed at promoting the benefit of society. Through itemizing the rules, regulations and procedures of the local government that interrupt the development of the Tsukuba Civic Activities Cyber-Square Facebook page, this study attempts to explain how ‘red tape’ affects public engagement in online communities.

1. Government and Social Media

1.1. Why Should Governments bother with Social Media?

In tandem with the developments of information technology and new social media, many governments are trying to keep pace in implementing newer platforms to engage in communication, especially with citizens because actions of governments make grand impact on the lives of citizens. The Habermasian concept of the public sphere in connection to social media adoption is an attractive option for renewing government interest to implement participatory democracy. The Habermasian idea describes how citizens that have the facilities of speech and action can take part in discourse and challenge assertions or introduce new agenda, express thoughts free from internal and external influence (Habermas, 1989).
Social media is gaining momentum in Japan as a platform to restore opportunities for communication among the government and citizens, and may possibly promote and extend the public spheres as claimed previously with the Internet over a decade ago (Wilhelem 2000; Sassi 2000; Keane 2000; Dahlberg, 2001). The criticism by Poster (1995) on the apathy among citizens and how the public sphere does not apply to Internet due to changeable virtual identities is partially resolved because social media such as Facebook endorses users to make accounts with their real names and not aliases.

The option of connecting governments to citizens via social media is an attractive platform of creating a partial public sphere and also provide an avenue for information and knowledge of public affairs and issues that impact citizens. This democratic stance will allow direct access to information from both inside and outside the government to the public and gradually allow for an agency-centric or citizen-centric model that is tailored to the needs of the citizen (Dawes et al., 2004). Social media may create an environment favorable for citizens to participate virtually and more actively, leading to a more open government (Lee & Kwak, 2012). Ideally, citizens can become the producer of public services through social media (Linders, 2012). Social media can also be used in crisis management (Kavanaugh et al., 2012) and assist governments when large-scale disasters may temporarily paralyze government responses.

1.2. Government Rules Regulations and Procedures

In order to have an institution function properly, many rules, regulations and procedures are defined within the entities. However, these rules, regulations and procedures sometimes conflict with organizational objectives. Governments also create many rules, regulations and procedures for management purposes, however, these sometimes result in becoming a burden and are referred to as red tape (Kaufman, 1977). The definition of red tape by Bozeman (1993) suggests that these rules, regulations and procedures “entail a compliance burden for the organization but make no contribution to achieving the rules’ functional objectives”.

Research on red tape exists in the field of public administration and empirical attempts in collecting evidence or measuring red tape have been made (Feeney, 2011; Bozeman & Feeney, 2011; Feeney, 2012; Riccucci, 2012; Borry, 2013). Bozeman & Feeney (2011) divide the administrative delays by red tape into two categories: rule-inception red tape (bad rules, regulations and procedures from the outset) and rule-evolved red tape (rules, regulations and procedures that turn bad over time). The problem of red tape is evident in Japan, as Tsuneki (2012) describes how bureaucracy contributes to the incompetence of hindering recommending appropriate public policies that maximize social welfare.

Red tape can be found at every government level in Japan, and although the initial intent of these rules and procedures can be considered benign or positive, the results may be otherwise. Tsuneki (2012) has used the label “harmful” in the arguments for bureaucracy, however, in terms of considering red tape, one can define the results as delays or interruptions of administration.

2. Managing Online Communities and Administrative Conflicts

2.1. Identifying the Main Administrative Interruptions in Online Communities

This objective of this study is to itemize the rules, regulations and procedures of the local government that interrupt the development of the Tsukuba Civic Activities Cyber-Square
Reflection Papers, Work-in-progress and Ongoing Research Papers

Facebook page. This study attempts to explain how ‘red tape’ affects the level of maturity of openness of government and public engagement in the Tsukuba Civic Activities Cyber-Square Facebook page.

One underlying trait of local governments in Japan implementing new initiatives, such as the adoption of social media to communicate with citizens, is the avoidance of claims and complaints from local citizens. Claims and complaints may vary, ranging from direct opposition towards policies devised by governments, to concerns of protection of personal information. The following four administrative interruptions (1) Circular letters, 2) Neighborhood association related red tape, 3) privacy concerns, 4) annual personnel reshuffles/reassignments) may have affected various aspects of development of Tsukuba Civic Activities Cyber-Square Facebook page, and have been documented through quarterly meetings with the Tsukuba Municipal Hall workers from December 2011 and also cross-verified through multiple confirmations through having one graduate student (gender male, age 24) work part time in the Tsukuba Municipal Hall from June 2013 – March 2014 and from June 2014 onwards.

2.2. Circular Letters for sanction/approval

Any information that is posted on social media needs prior approval by having a circular letter (document circulated among managers) stamped by all involved. Any comment that is found to be too casual or deemed to be inappropriate for the appearance of the municipal hall is not allowed or edited and re-edited for appearance’ sake. The delay in response causes interruptions or inhibits activity in the online community and slows down public engagement.

2.3. Neighborhood Associations related Complaints

As in other nations, Japanese civil society consists of organizations such as NPOs and citizens that are enthusiastic of contributing to the community, however its strength is in the neighborhood associations that participate in local governance in Japan (Pekannen et al., 2014). Neighborhood associations (jichikai that are known as chonaikai or kukai, depending on the naming of the district) were once the pillars of local communities, however, the members in these associations are aging, and participation has dropped in many districts. Local governments would like to see more participation by younger membership, however, such rejuvenation attempts have been difficult.

Having participation by the neighborhood associations in the Tsukuba Civic Activities Cyber-Square has been challenging due to the refraining of municipal hall workers to engage neighborhood associations due to complaints that come from members of the neighborhood associations, and also comments by citizens who have been denied access to the neighborhood associations because of domestic related disputes between members and non-members. The Tsukuba Municipal Hall has reacted and solved these complaints by requesting the parties involved to come to the municipal hall in person, however the municipal hall workers are required to be extra sensitive in dealing such matters, and require circular letters as well.

2.4. Privacy Concerns

As Cullen (2008) indicates, a strong tendency of attributing problems of information privacy in Japan towards government employees may exist among citizens, where the trust in the government’s ability to protect private information is comparatively low. The results of Cullen’s study may coincide with the start of the 2003 Japanese Act on the Protection of Personal
Information and the opposition towards the implementing and initial problems of protecting information of the basic resident register for local governments. This low level of trust has resulted in the hesitancy of implementing open information technology environments for building online communities and instead, closed, secure local SNS systems protected by passwords and encryption were implemented in many communities and eventually go out of use. Such privacy concerns creates limits and barriers for online communities, because creating a list of people/Facebook users that “like” a specific page, such as the Tsukuba Civic Activities Cyber-Square becomes problematic due to the Act on the Protection of Personal Information and compliance that the local government needs to uphold.

2.5. Annual Personnel Reshuffles and Reassignments

The beginning of the fiscal year in Japan is April and therefore, local and national governments routinely shuffle personnel annually or bi-annually.

The reason for these shuffles is to avoid any collusion or “back-scratching” occurring by the workers. Although this may be a reasonable rationale for the annual personnel reassignments, this custom creates lapses in efficiency, because new people are introduced to new tasks every April. This results in the temporary or permanent loss of expertise or know-how at the operation level in local governments and ministries.

![Figure 1: Trend of Decline of Engagement (the total number of actions made by Facebook users) among users from March 1, 2013 – May 7, 2013](image1)

![Figure 2: Trend of Decline of Engagement (the total number of actions made by Facebook users) among users from March 1, 2014 – May 7, 2014](image2)
As one can observe from Figure 1, 2 and 3, one can observe a recurring decline in the trend of engagement in April for 2013 and 2014 into May in the Tsukuba Civic Activities Cyber-Square. Engagement shall be operationalized in this study as the total number of actions made by Facebook users inclusive of clicking the like icon, writing comments, sharing entries, and viewing movies by playing through clicks per day. Due to awareness of this decline in the month of April among the workers in 2014, the initial trend is less drastic that year due to the efforts of workers doing overtime work during April and May, however, the recurring trend is evident and with transition of personnel completed in May.

3. Slowing Open Participation, Transparency and Red Tape

This paper has indicated how red tape in the form of 1) circular letters for sanction within local governments, 2) neighborhood association related concerns and red tape, 3) Act on the Protection of Personal Information related privacy concerns, 4) annual personnel reshuffles/reassignments, negatively affects public engagement. Table 1 illustrates how each type of red tape is inhibiting the growth of this specific online community and how in combination of red tape and inhibition of growth, public engagement is negatively affected (Lee & Kwak, 2012).

Lee & Kwak (2012) proposed a five-stage maturity model with details that sufficiently define government related usage of social media to create online communities. The 1st stage of initial conditions describe one-way broadcasting information and static interaction, the 2nd stage of data transparency has limited feedback, the 3rd stage of open participation allows input that can be used for policy decisions, e-voting and e-petitioning. The 4th stage of open collaboration allows various levels of sharing and 5th stage of ubiquitous engagement tries to encapsulate the image of total integration of social media and decision-making processes.
Table 1: Red tape inhibiting growth of online community

<table>
<thead>
<tr>
<th>Type of Red Tape</th>
<th>Inhibiting Growth of Online Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>circular letters within local governments</td>
<td>Contribution and Commitment (Hurting Visibility and feedback, inhibiting contribution)</td>
</tr>
<tr>
<td>neighborhood association related concerns</td>
<td>Commitment and Newcomers (lack of transparency, inhibition of joining)</td>
</tr>
<tr>
<td>Act on the Protection of Personal Information related privacy concerns</td>
<td>Contribution and Newcomers (visibility, inhibition of joining)</td>
</tr>
<tr>
<td>annual personnel reshuffles/reassignments</td>
<td>Regulating behavior, Contribution Commitment</td>
</tr>
</tbody>
</table>

By comparing Table 1 which attempts to connect how each type of red tape is inhibiting growth of online communities by affecting elements of online community building suggested by Kraut & Resnick (2012) and the five stages proposed by Lee & Kwak (2012), one can identify that Tsukuba Civic Activities Cyber-Square is being blocked at the second stage of “transparency” due to the four types of red tape, and has a long way to achieve the third stage of “open participation” which is the current objective. The administrative delays by red tape might be hurting transparency in this specific case by lowering visibility and inhibiting contribution and commitment among users. Although the Tsukuba Civic Activities Cyber-Square is steadily growing as a community to support civic activities (Kaigo, 2014), one can suggest that any one of the four elements stated in this paper can impede development of new online communities aimed at nurturing civic activities.

References


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The Mechanisms of Twitter Audience Reach

The Case of the French Political Twittersphere

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Abstract: This article examines the mechanisms of Twitter audience reach in the particular case of the French political twittersphere. In order to determine the level of concentration of the audience and its distribution across different accounts, we compiled a comprehensive database of 147,420 accounts that we classified according to an audience index based on the account’s number of followers and average number of retweets. The analysis shows that only about a hundred accounts draw the bulk of the audience on the network, and that these accounts belong to major media outlets or to figures holding top positions in fields that receive extensive media coverage. Twitter thus proves to be an area where amassed media fame capital can be converted into a new type of digital audience capital.

Keywords: Twitter, audience, influence, media field, media fame capital, digital audience capital

Acknowledgements: This article presents the findings of a collaborative research project - ImagiWeb - funded by the French National Research Agency. We would like to thank Julien Velcin and all the researchers involved in this project.

Academic research on measures of online influence has gained new impetus with the emergence of the Twitter social network (Bakshy et al., 2011, Cha et al., 2010, Kwak et al., 2010). The very structure of the site, which is based on a ranking of posted messages (tweets) according to the number of times they are picked up by other users (retweets), helps explain Twitter’s appeal as a “laboratory for the study of diffusion processes” (Bakshy, 2011). Indeed, Twitter materializes data (number of followers, number of posted tweets, number of retweets, etc.) that, depending on the definitions and concepts used, can be likened to a “diffusion”, “visibility”, “audience” or “influence” index. While most of the research emphasizes the concept of influence, with reference to Katz and Lazarsfeld’s work (1944, 1955), here we propose to interpret this data as indexes measuring the audience of accounts. Indeed, we find it difficult to infer a relationship of influence from a retweet or a following. These metrics alone are not empirical evidence of a relationship of influence, that is, a relationship where an individual changes the behaviour or opinions of another individual. However, we can consider the data as indexes measuring an account’s audience. An account’s number of followers corresponds to the potential number of accounts likely to see this account’s posted tweets in their timeline; a message’s number of retweets indicates at the very least the number of times a message has been read and shared. Each Twitter account can therefore be measured in terms of its own audience.
This article proposes to analyse the distribution of this audience across the various accounts that make up the social network and to explain the mechanisms for building a large audience on Twitter. We will specifically focus on French accounts that somewhat regularly post political tweets, that is, messages referring to the political sphere and its actors, institutions and activities. Do the different accounts engaging in public debate on Twitter all have the same ability to make their voice heard? Or, to the contrary, does the audience cluster around a small set of accounts? These questions are part and parcel of the debate between cyber-optimists and cyber-realists (Monnoyer-Smith, 2011) on the ability of the Internet — here, of Twitter — to democratize political speech. We seek to contribute to the discussion through an empirical analysis of the French political twittersphere that supports the hypothesis of a trend towards an oligarchic concentration of hubs spreading political signals on the network.

1. Methodology

In order to scientifically analyse the social network we created a panel including the 1,116 accounts with the largest audience in the French political twittersphere. This panel was developed through the classification of a comprehensive database of 147,420 accounts that we ranked according to an audience index.

1.1. Creation and classification of a comprehensive account database

Using AMI Opinion Tracker web-tracking software we collected and filed all the tweets referring to the main French political figures and parties throughout 2012. The software identified 147,420 accounts. This can thus be considered a comprehensive database of the French political twittersphere’s population, assuming optimal software performance.

The following five pieces of information were systematically provided for each of these accounts: the number of tweets posted, the number of people followed, the number of followers, the number of political tweets, and the total number of retweets of political tweets posted by the account.

We then classified this comprehensive database of 147,420 accounts according to the following audience index:

\[ A = X \times \frac{Y}{Z} \]

X: number of followers; Y: number of political retweets; Z: number of political tweets

This index combines an account’s potential audience (measured by the number of followers, that is, the number of accounts that might read the tweets posted by the account) and its active audience (measured by the average number of retweets of its political tweets, that is, by the number of accounts that read and shared its political messages).

The classification of this comprehensive database according to this index follows a power law that has already been observed in other areas of the web such as the blogosphere (Anderson, 2006) and Google search engine (Cardon, 2013).
Once the number of followers reaches 2,000 the curve “takes off”. We therefore chose to create a panel of accounts over this threshold and to more precisely characterize each of them.

1.2. Makeup of the “Twitter audience” panel

In order to qualify for the “Twitter audience” panel, the accounts in our comprehensive database had to meet the following three criteria:

1. Have at least 2,000 followers
2. Have had a political tweet retweeted at least two times
3. Have an audience index above 5,000

1,116 accounts met these three criteria. We then sought to more specifically characterize these accounts by drawing on manual online research. For each account we added the following four pieces of information: the nature of the account (media, journalist, minister, local official, blogger, etc.), its author’s social position in his/her field, the highest position the author has held in this field and his/her number of appearances in the mainstream media, measured on the basis of the number of videos available on YouTube about him/her.

We thereby tried to place the authors of accounts with a large audience in the "real" social world, working from the hypothesis that their social position has much more bearing on the size of their Twitter audience than their level of activity on the network (Cha et al., 2110).

2. Key findings

Analysis of the Twitter audience panel reveals that only about a hundred accounts draw the bulk of the audience on the social network, and that these accounts belong to major media outlets or to figures holding top positions in fields that receive extensive media coverage. Twitter thus proves
to be an area where amassed media fame capital can be converted into a new type of digital audience capital.

2.1. High audience concentration even within the audience panel

One of the main findings of our research concerns the extreme audience concentration even within the “Twitter audience” panel which, it should be recalled, already consists of the 1,116 accounts at the top audience of the French political twittersphere.

Thus, while the 10% of accounts with the largest audience in the panel have over 52,608 followers, the 10% with the smallest audience (in the panel) have less than 3,269 followers.

Table 1: Distribution by decile of audience of the panel accounts’ number of followers and audience index

<table>
<thead>
<tr>
<th>Decile of audience</th>
<th>Number of followers</th>
<th>Audience index average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top decile</td>
<td>52,605 followers</td>
<td>4,738,751</td>
</tr>
<tr>
<td>Median</td>
<td>8,452 followers</td>
<td>25,373</td>
</tr>
<tr>
<td>Bottom decile</td>
<td>3,269 followers</td>
<td>7,445</td>
</tr>
</tbody>
</table>

These results are even more remarkable when the audience index of accounts is considered: the bottom decile alone accounts for 88.7% of the panel’s total audience. Very few accounts – around a hundred at most – thus really have the means to spread digital signals on Twitter on a broad scale.

Furthermore, these accounts have properties that are extremely rare in the panel.

2.2. A panel dominated by figures holding top positions in the most media-covered fields

Almost one third (29%) of the accounts that make up the Twitter audience panel belong to journalists or media figures, 18% belong to media outlets (television, radio, newspaper, etc.), and 14% belong to politicians. Most of these figures therefore come from media-covered fields and generally hold top positions in these fields.

Also, the greater these figures’ media fame capital, the greater their chances of being at the top of the audience panel. In other words, the audience of figures on Twitter is directly correlated with their level of media fame capital.

Table 2: Distribution by decile of audience of the percentage of accounts authors having appeared in a major media outlet

<table>
<thead>
<tr>
<th>Decile of audience</th>
<th>Appearance in a major media outlet</th>
<th>No appearance in a major media outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top decile</td>
<td>81,9%</td>
<td>18,8%</td>
</tr>
<tr>
<td>Median</td>
<td>60,7%</td>
<td>39,3%</td>
</tr>
<tr>
<td>Bottom decile</td>
<td>18,1%</td>
<td>47,4%</td>
</tr>
</tbody>
</table>
We note that the 10% of accounts authors with the largest audience in the panel (and therefore in the French political twittersphere) have overwhelmingly (81.9%) appeared in the mainstream media, versus 18.1% of accounts in the bottom decile of audience.

3. Conclusion

Very few accounts have the ability to distribute signals to a wide public: of the whole network, only around a hundred accounts draw the bulk of the audience. These accounts belong to major media outlets or figures holding top positions in fields that receive extensive media coverage. Far from allowing for a shared audience among agents of civil society, the social network Twitter appears to enable a hyper-concentration of the audience and thus to magnify the influence of figures who already have a preliminary audience. Except for a minority (approximately 20%) of “pure” twitterers and bloggers in the Twitter audience panel (but not in the panel’s top decile), Twitter appears to be a platform where amassed media fame capital can be converted in a new type of digital audience capital.

References


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Jean-Yves Dormagen is a professor of political science at the University of Montpellier and an expert in voting behaviour and digital inequality.
Why and How to Create a Panel of Twitter Users

A Hybrid Method for Measuring Opinion

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Abstract: Like surveys, Twitter is a new means of observing public opinion, and even a predictor of election results according to some authors, but the messages posted on the network are often not associated with the socioeconomic characteristics of their authors. Researchers are therefore limited to studying the network’s opinion as a whole, without separating the various social subgroups involved in the debate (students and professionals, left-wing and right-wing activists, etc.). In order to overcome this limitation, we created a panel of 1,228 political twitterers whose socio-demographic characteristics we identified through a questionnaire. The analysis reveals that the number of political tweets posted by the panel is strongly determined by the sociological and political makeup (age, profession, level of interest in politics) of twitterers, but also by the degree of politicization of the news.

Keywords: Twitter, panel, web-tracking, political opinion, public opinion

Acknowledgements: We would like to thank all the ANR ImagiWeb project teams.

In line with academic research asserting the existence of correlations between the analysis of tweets and of other social phenomena offline – such as American box office results (Asur, Huberman, 2010) or stock exchange values (Bollen, Mao, Zong, 2010) – several studies have suggested that observation of Twitter might also help predict election results (O-Connor et al., 2010; Tumasjan et al., 2010; Jungherr, Jürgens, Schoen, 2011). Thus, Andranik Tumasjan (2010) posits a positive correlation between the number of tweets mentioning candidates and parties who participated in the 2009 German legislative elections and their actual election results: the more a candidate or party was mentioned on Twitter, the greater his/her/its chances of winning the election. While Brendan O’Connor (2010) does not believe the volume of tweets is a sufficient indicator – the tone of posts must also be taken into account – the correlation between tweets and election results also holds in the U.S. case.

While these new research technologies share and even challenge the predictive claim of surveys and the assumption that opinions are quantifiable and measurable, they also introduce two significant epistemological breaks. The first concerns the method for collecting data and the substitution of a passive position of observation for active questioning. Indeed, on the Internet opinions are not artificially elicited by a researcher’s questions but rather present themselves as raw and authentic material for the researcher to analyse. This a priori attractive set-up for the
social sciences makes it possible to overcome one of the main biases of declarative surveys: the imposition of a problem. The second break concerns the level of analysis and the transition from sampling to a comprehensive analysis of the study population that is enabled by the digital nature of the field and the development of software able to process very large amounts of digital data.

However, by giving up population sampling and questioning this type of research has also lost the power to socially place the opinions studied. Researchers are therefore limited to studying the network’s opinion as a whole, without separating the various social subgroups involved in the debate (students and professionals, left-wing and right-wing activists, etc.). This article proposes a hybrid method for measuring opinions on Twitter that combines the advantages of web tracking with those of survey approaches.

1. Methodology

This method for creating a Twitter social network panel has a double objective: to analyse the opinions of twitterers without ever interacting with them while being able to place them socially and politically.

1.1. Creation of the “respondent” panel

The first step in creating our panel was to establish a comprehensive list of French political twitterers and form a representative sample of accounts from it. To do this we conducted a keyword search using the AMI Opinion Tracker software to gather all the tweets referring to the spring 2012 French presidential campaign – more than 2,800,000 tweets from 248,628 accounts. We then took a random sample of 20,000 accounts that we tested for eligibility. In order to qualify for the panel the account had to meet two main criteria: be held by only one individual (not an organization or news outlet, for example) and be drafted in French. We then administered a short questionnaire including around twenty socio-demographic questions to the 10,299 eligible accounts. 608 individuals agreed to answer the questionnaire and be part of the panel (that is, 5.9% of the eligible population). Thereafter we had no more interactions with these respondents. We simply gathered and analysed all of their tweets using our software.

In order to verify that the individuals who agreed to answer were representative of the eligible population we also created a “non-respondent” panel.

1.2. Creation of the “non-respondent” panel

For this purpose we randomly took a sample of 620 accounts from the database of the 9,641 non-respondents. We then sought information on their socio-demographic and political characteristics through a manual analysis of their account (profile photo and description, tweet content, etc.) and through data profiling on various blogs and other social networks to which some of the twitterers belong.

We were able to identify the gender of non-respondents in 95% of cases, their profession in 52%, their political leanings in 43%, their education level in 36%, and their age in 39% of cases.

We were then able to see that there were few sociological differences between the individuals who responded to our questionnaire and the individuals who did not respond and on whom we had socio-demographic and/or demographic information. For example, with regard to the
profession of twitterers, in both panels students and professionals are vastly overrepresented in relation to the French population, while workers and employees are underrepresented.

Table 1: PCS* of respondents and non-respondents for whom the PCS could be identified

<table>
<thead>
<tr>
<th>PCS</th>
<th>Respondents (N=608)</th>
<th>Non-respondents PCS identified (N=308)</th>
<th>French population 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>0,2%</td>
<td>0,0%</td>
<td>1,1%</td>
</tr>
<tr>
<td>Craftsmen, shopkeepers and business owners</td>
<td>1,2%</td>
<td>2,5%</td>
<td>3,4%</td>
</tr>
<tr>
<td>Managerial and professional positions</td>
<td>27,5%</td>
<td>33,9%</td>
<td>8,8%</td>
</tr>
<tr>
<td>Intermediate professions</td>
<td>14,6%</td>
<td>10,7%</td>
<td>13,2%</td>
</tr>
<tr>
<td>Employees</td>
<td>5,9%</td>
<td>2,1%</td>
<td>16,4%</td>
</tr>
<tr>
<td>Workers</td>
<td>1,3%</td>
<td>0,6%</td>
<td>12,8%</td>
</tr>
<tr>
<td>Retirees</td>
<td>3,6%</td>
<td>0,6%</td>
<td>26,5%</td>
</tr>
<tr>
<td>Other people not engaged in active employment</td>
<td>45,7%</td>
<td>49,6%</td>
<td>17,9%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* PCS is a French acronym referring to profession and socio-professional category

It should be noted, however, that we do not know if the non-respondents whose profession we were not able to identify (N=312) share the same characteristics as the other non-respondents. This is one of the limitations of our method.

2. Key findings

We analysed the activity of both the respondent and non-respondent panels for 11 months, from 1 March 2013 to 31 January 2014. During this period the respondent panel posted 840,251 tweets, including 81,606 political tweets (9.7%) and the non-respondent panel posted 1,120,896 tweets, including 42,940 political tweets (3.8%). Our key findings are that the political tweet output of our panels is highly concentrated and socially determined on the one hand, and very uneven over time and correlated with the level of politicization of the news on the other hand.

2.1. A concentrated and socially determined political tweet output

The political tweet output of our panels is extremely concentrated. For example, 3% of respondents alone accounted for over half of the political tweets posted during the period. This phenomenon of concentrated posting activity by a minority of users has already been observed in several studies on political forums (Jansen, Koop, 2005) and even on Twitter (Tumasjan et al., 2010). Harold Jansen and Royce Koop (2005) refer to these individuals who very regularly post very large numbers of political messages as “political junkies”. Data from our questionnaire give us a fuller picture of these top posters. They share the three following traits: they are elderly, professionals or retired professionals, and very political.
In general, these same three variables (age, occupation and level of interest in politics) are correlated with the political tweet output of the individuals in our panel. For example, the occupation of twitterers clearly determines their political message output level.

Table 2: PCS of respondents and number of tweets posted (ANOVA)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Groups</th>
<th>N=</th>
<th>Averages</th>
<th>F</th>
<th>P value</th>
<th>p &lt; 0,05 =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of political tweets posted</td>
<td>Private sector professionals</td>
<td>87</td>
<td>133.40</td>
<td></td>
<td>6.355</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Public sector professionals</td>
<td>68</td>
<td>161.65</td>
<td></td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Employees and workers</td>
<td>42</td>
<td>84.29</td>
<td></td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Retirees</td>
<td>32</td>
<td>694.88</td>
<td></td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>University &amp; high-school students</td>
<td>244</td>
<td>66.63</td>
<td></td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>558</td>
<td>146.25</td>
<td></td>
<td>0.000</td>
<td>*</td>
</tr>
</tbody>
</table>

While retirees are a minority in our panel (see Table 1), the number of political tweets they posted over the whole period (695 tweets) was tenfold the number posted by university and high school students (66.63) tweets. By enabling the social and political placement of tweet authors, the method we used to create a French political twittersphere panel provides greater insight into the sociological mechanisms of posting on the network. But the longitudinal analysis of our panels also revealed a very large disparity in the timing of this output.

2.2. An uneven output over time, linked to the politicization of news

The distribution of political tweet output over time shows large daily fluctuations. The peaks in output seen in the chart consistently correspond to political events that made the political news in the French media. For example, the peak of 23 April 2013 occurred on the day of the French parliament’s final adoption of a law on gay marriage, and the peak of 2 April corresponds to the revelation of tax fraud by the French budget minister.

Figure 1: Daily distribution of the number of political tweets posted by respondents

The socio-demographic and political data on panel members also allowed us to verify that these peaks in tweet output encompass all twitterers, and not just the least politicized ones. The most
politically savvy individuals who regularly post political tweets, post significantly more tweets when the news is highly politicized

3. Conclusion

Creating a Twitter panel allowed us to define the social and political characteristics of twitterers and thus to better understand the social mechanisms behind political message output on the network. While this article focused on demonstrating that these sociological variables determine the quantity of political tweets posted, future research might study the relationship between these variables and the content of tweets posted by the different social groups on the network.

References


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Flooded Country, Flooded Internet

Analysis of Facebook Use in Bosnia and Herzegovina in Times of Emergency

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Abstract: In May 2014, Bosnia and Herzegovina was hit hard by severe flooding. The floods not only brought damage, but also caused a shift in the use of Facebook as it served as one of the main channels for seeking information. In order to examine the type and frequencies of information posted on this SNS during this period, 628 posts, retrieved from four pages and two groups, were analyzed. Facebook was used as a “backchannel” of communication that enabled the formation of online communities which translated into social support via self-help, relief assistance, and solidarity.

Keywords: Facebook, information channel, Bosnia and Herzegovina, floods, community self-help

In mid-May 2014, a wider area of the Western Balkans was hit by the powerful low-pressure system named “Tamara,” causing unprecedented floods and landslides. One of the most affected countries in the region has been Bosnia and Herzegovina. Torrential rain engulfed the country for days causing damages measured up to 1.3 billion Euros, which could reach 3% of national GDP (Arnautović M., 2014). The Council of Ministers of BiH stated that approximately 950 000 people left their homes due to the floods and 1.5 million were somehow affected by this natural disaster (Arnautović M., 2014), while at the same time state does not have plan how to help affected citizens (Dugum A., 2014). To put this in perspective, it is important to note that Bosnia and Herzegovina has a population of 3.8 million people (Agencija za statistiku BiH, 2014).

1. Introduction

Floods in Bosnia and Herzegovina not only caused damages but also generated substantial media attention. An interesting aspect of media trends during this period was the high use of social media, in particular Facebook and Twitter. Previous research (Palen et al., 2009; Sutton et al., 2009; Kaigo, 2012) demonstrated that social media played a significant role as “backchannels” during disasters and emergencies by providing information and relief that would otherwise not reach affected population. Similarly, the floods in Bosnia and Herzegovina brought an increase in the use of social network sites (SNS) as communication tools which facilitated citizens’ response to the crisis by enabling them to provide information and lifelines. At the same time, traditional media and the state were criticized for their poor performances. The governments were condemned for the inadequate response to the crisis and for the previous mishandling of anti-flood projects which additionally aggravated the situation (Padalović, 2014; klix.ba, 2014a). Local TV and radio stations
were the most trusted and timely information providers in the affected regions, whereas the three biggest PBS TV stations missed the opportunity to warn citizens or to offer up-to-date information (Arnautović A., 2014; Vukobrat, 2014). Bosnia and Herzegovina, once considered a laggard in Internet use and penetration, now has almost 2 million Internet users or 59.96% of population (RAK, 2014) with 1.4 million Facebook users (RSE, 2013).

1.1. Research Questions

Considering the above, this exploratory paper probes the following research questions: How did Internet users in Bosnia and Herzegovina use Facebook for emergency response during the floods in May 2014? and What were the main differences between pages/groups created during this event?

The objective is to look into what kind of messages Facebook users posted within this period, with an intention to make inferences into how different online communities, which represented both directly and indirectly affected citizens and one governmental institution, used social network sites during an emergency event. The paper aims to fill a lacuna in the literature, since there is little, if any, research on SNS and citizen participation in the context of Bosnia and Herzegovina.

2. Literature Review

Previous studies on SNS and emergency events provide theoretical insights for this paper. This paper uses the term SNS as defined as: “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (Boyd and Ellison, 2007, p. 211). Crisis situations are non-routine events that lead to non-routine behaviors and social arrangements including the self-response of the public (Palen and Vieweg, 2008). Previous research shows that SNS serve as a backchannel communication tool (for definition see Sutton et al., 2008) and “virtual destinations” (Palen and Vieweg, 2008) which enable a wide-scale interaction among members of public, as well as a primary emergency communication tool (Palen et al., 2009; Palen and Vieweg, 2008). SNS have been deemed a grassroots source of rescue and response information, a tool that enables local groups to improvise informal relief efforts, and a tool for expressing emotions and evaluation (Palen et al., 2009; Hughes and Palen 2009; Palen and Liu, 2007; Sutton et al. 2008). Recent crisis events in Japan demonstrated that Twitter, Facebook, and Mixi were the most effective channels for information distribution, serving as “people-finders,” tools to match needs and supplies, and sources of first reports on radiation (Slater et al., 2012), while being mostly beneficial to the users during the 2011 Earthquake and Fukushima accident (Kaigo, 2012). Furthermore, Twitter played a prosocial role and became a basis for building social capital during the disaster (Kaigo, 2012).

3. Methodology

Content analysis, both qualitative and quantitative, was employed to answer the research questions. Initially, the researcher searched for Facebook pages or member groups, by using the combination of words “poplave” (English translation: floods), “Bosna i Hercegovina” (Bosnia and Herzegovina), and/or names of the most affected communities, e.g. “Doboj,” “Banja Luka,”
“Maglaj,” “Odzak.” The initial search returned 67 pages/groups all “Joined Facebook” in the period of May 14-19 and which were archived as a PDF documents. After reading through all retrieved pages and groups, six were chosen for analysis. The group titled Poplave opcina Odzak i okolina. (English translation: Floods Municipality of Odzak and Surrounding Areas.) was selected as an open group with the highest number of posts which, at the time of archiving, had 1003 members. The municipality of Odzak represents one of most affected areas in the country. Page titled Ванредно стање ДОБОЈ (State of Emergency Doboj, more than 11k “likes”) was created to cater to the needs of the population in an urban area that was completely cut off by the floods. Doboj was the only municipality in BiH, where the entity government appointed temporary military governance due to the inadequate municipal response to the crisis. The group Poplave Banjaluka -Nudim-trazim pomoc u namjestaju i tehni (Floods Banja Luka - I Offer - I Seek Help in the Form of Furniture and Appliances, 432 members) reflects the crisis response among the inhabitants of one of the most developed communities in the country, the second biggest city. Two pages, Mapa poplava BiH (Floods Map BiH, 11k “likes”) and Poplave u BiH (Floods in BiH, 20k “likes”), were selected since the initial reading indicated that these pages provide information related to the entire country. Finally, the page Poplave Republika Srpska (Floods Republika Srpska, 11k “likes”) was selected as it appeared to be one of few pages created by any government institution or official, at any level, solely for the purposes of addressing the crisis situation. The main coding units were “posts” on “timelines” either pages or groups (for definitions see Palen and Vieweg, 2008), excluding comments or shared information after the initial post. Qualitative analysis and initial media commentary in the media indicated that all posted information could be categorized in the following themes: (1) emergency and information on current situation and damage (2) posts asking for help; (3) posts asking for information on people’s whereabouts; (4) posts addressing false information and rumors; (5) donations, volunteering and humanitarian aid from abroad; (6) posts related to a politician, political party, or government; (7) shared news; (8) photos/videos of affected areas; (9) other information previously uncategorized.

4. Results

The total number of posts on the previously introduced four Facebook pages and two groups during the period of May 14-20, 2014, was 628. Frequency of posts per page or group is presented in Table 1.

<table>
<thead>
<tr>
<th>Facebook Page/Group</th>
<th>No. of posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poplave opcina Odzak i okolina. / Floods Municipality of Odzak and Surrounding Areas (G)</td>
<td>290</td>
</tr>
<tr>
<td>Ванредно стање ДОБОЈ / State of Emergency Doboj (P)</td>
<td>114</td>
</tr>
<tr>
<td>Poplave u BiH / Floods in BiH (P)</td>
<td>75</td>
</tr>
<tr>
<td>Poplave Republika Srpska/ Floods Republika Srpska (P)</td>
<td>62</td>
</tr>
<tr>
<td>Mapa poplava BiH / Floods Map BiH (P)</td>
<td>59</td>
</tr>
<tr>
<td>Poplave Banja Luka- Nudim-trazim pomoc u namjestaju i tehni / Floods Banja Luka - I Offer - I Seek Help in the Form of Furniture and Appliances (G)</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>628</td>
</tr>
</tbody>
</table>
Another important criterion when choosing the sample for analysis was the popularity of the page or group, expressed in the number of “likes” or members. The page titled Floods Municipality of Odzak and Surrounding Areas. had the highest number of posts 290, with almost equal frequency of posts during a three-day-period: May 17-19. The page State of Emergency Doboj had the second highest number of posts 114, with a peak on May 16th (43 posts). The analysis showed that individuals or group members who were actively posting information were mostly interested in providing and asking for photos of flooded and damaged areas, including roads and railroads, major intersections landmarks, houses, fields, livestock farms, etc. (192). Since the onset of the crisis, citizens used Facebook as quickest way to distribute information and emergency updates from directly affected areas (104), to identify communities or individuals which needed assistance or aid, and to organize the recovery assistance in a form of volunteering actions and aid distribution (102). Few posts addressed lack of media reporting about affected communities. Some members of the page from Odzak complained about media silence in terms of reporting about floods in their community, e.g. on May 19, a user appealed to other group members to send their photos to a public broadcast TV station in order to raise awareness on their problems. Table 2. presents the frequency of different topics.

<table>
<thead>
<tr>
<th>Posts - Themes</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency and information on current situation and damage (transportation;</td>
<td>52</td>
<td>20</td>
<td>0</td>
<td>17</td>
<td>15</td>
<td>0</td>
<td>104</td>
</tr>
<tr>
<td>water and energy supply; information from state agencies dealing with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>emergencies; emergency numbers, car insurance related info, house sanitation,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts asking for help (for oneself and/or others)</td>
<td>7</td>
<td>22</td>
<td>0</td>
<td>2</td>
<td>9</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Posts asking for information on people’s whereabouts (asking information</td>
<td>39</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>55</td>
</tr>
<tr>
<td>about people or their whereabouts; lists of missing people, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts addressing false information and rumors</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Donation, volunteering, humanitarian aid from abroad</td>
<td>29</td>
<td>22</td>
<td>8</td>
<td>10</td>
<td>25</td>
<td>8</td>
<td>102</td>
</tr>
<tr>
<td>Posts related to a politician, political party, or government</td>
<td>0</td>
<td>0</td>
<td>23</td>
<td>0</td>
<td>0</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>News (shared from other mainstream or online news outlets)</td>
<td>20</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Photos/videos of affected areas</td>
<td>101</td>
<td>16</td>
<td>64</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>192</td>
</tr>
<tr>
<td>Other</td>
<td>38</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>628</td>
</tr>
</tbody>
</table>

Note: Numbers 1-6 stand for group/pages titles: (1) Floods Municipality of Odzak and Surrounding Areas; (2) State of Emergency Doboj; (3) Floods in BiH (P); (4) Floods Republika Srpska; (5) Floods Map BiH; (6) Floods Banja Luka - I Offer - I Ask Help in Furniture and Appliances

Given that some media commentaries warned against the misinformation on SNS during the floods, posts were analyzed to identify potentially false information and rumors. In order to determine the genuineness of these posts, the researcher used examples previously identified by some analyses of media reporting published in the BiH media soon after the floods, e.g. photos identified as being related to disasters that occurred in other regions of the world (klix.ba, 2014b). One of the examples is a photo of a dog carrying a cat on its back posted by a user on May 20 on page Odzak and Surrounding Areas; this photo has been online since February 2014. In addition, the researcher looked for words directly addressing these issues, and posts addressing
the irregularities with aid distribution which were attributed to an individual, specific political
group, or government institution, e.g. post on page State of Emergency Doboj “aid not to be given
to the authorities!” which generate a lot of comments, likes, and shares - 408 in total.

5. In Lieu of Discussion and Conclusion

This paper looked at how citizens and one government institution used Facebook for emergency
response during the floods in Bosnia and Herzegovina, and what were the main differences
between pages and groups created during this event. Three types of posts were dominant. First,
individuals and group/page moderators mostly posted photos about floods and damages in their
vicinity, including few photos representing individuals in distress. Second, they regularly updated
their pages with information about disrupted transportation, and other emergency information
and practical advice, e.g. car insurance issues or house sanitization. Third type of posts dealt with
humanitarian aid and volunteering, where a significant number of posts addressed the issues of
donations from abroad. This may be explained with relatively extensive BiH diaspora and their
concerns for the safety of their families and relatives. There was a high occurrence of posts related
to volunteering. It may be speculated that some users did not feel immediate danger, so they were
able to focus not only on providing assistance in their vicinity, but in other affected areas as well.
Widely debated in BiH society and media was the issue of whether or not social media incited
panic. This research suggests that although some cases of misinformation were present, Facebook
users on analyzed pages/groups did not use this social network for the mass spread of false
information. Nonetheless, it has to be noted that in some instances Facebook was used to address
irregularities with aid distribution, and mistrust in local government(s). Since the researcher was
unable to verify these statements, these posts were included under the category of false
information. The page created by the government was mostly used to post press releases or to
promote its Twitter account (@poplavers), which was their main information channel.

It may be concluded that greater proximity to the crisis and more direct damage resulted in users
posting more diversified information. Pages that brought the most information were created by
online communities in Ozdak and Doboj. Both municipalities have been among those hit hardest
by the floods, while Doboj had been completely cut off by the floods and had poor crisis response
by town officials. Furthermore, community members in affected areas, and in Bosnia and
Herzegovina in general, used Facebook as a “backchannel” of communication, which in turn
enabled extensive interactions. These interactions were translated into a formation of online
communities which provided social support via self-help and self-reliance with a potential spill-
over effect to offline communities due to the nature of SNS. Collective action was facilitated among
people who previously did not know each other. Members did not only share information, and
organize relief assistance, but expressed a sense of solidarity, a feature rarely seen on this scale in
the country. Similarly, as it was concluded in previous research, the role of Facebook was
“prosocial,” (Kaigo, 2012). According to Kaigo (2012), in the case of Twitter, communication
network of social support was formed through a social network which made social interaction
possible.

Even though more research is necessary to enhance this discussion, it is safe to speculate that one
motive for Facebook use was the shared perception among members that they were abandoned by
the (failed) state and its authorities, as well as forgotten by some of the more traditional media,
which they usually rely on when seeking information. The limitation of this paper is that it presents only a fragment of posts produced by Facebook users during this event.

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I am a second year PhD student at the University of Tsukuba - Program in International and Advanced Japanese Studies. I have finished a master’s program at the University of Tsukuba with a research about US print media and the Fukushima accident. Research interests: media and emergency/crisis events; role of new media in in-group conflicts; media and democratization.
Information Construction during Crisis Events in China and Australia

Applying ANT to digital media environments

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Abstract: As social media has become an important source of news and information, the question of the value of online information has attracted attention from both commentators and researchers. Arguably, in times of crisis, these questions become even more crucial, since the accuracy of information may directly affect the effectiveness of disaster responses and relief efforts. With an emphasis on the constructed and interpretative nature of information, this research will explore the sociotechnical processes through which crisis information is created, disseminated, and evaluated on micro-blogging sites through the interactions among various participants. Actor Network Theory (ANT) will be deployed to analyze this social media-based crisis communication process, and to identify the actors—including technologies, people and institutions—that collectively shape the information environment.

Keywords: Crisis communication, social media, actor network theory

As social media has become an important source of news and information, the question of the value of online information has attracted attention from both commentators and researchers. Arguably, in times of crisis, these questions become even more crucial, since the accuracy of information may directly affect the effectiveness of disaster responses and relief efforts. There is considerable uncertainty about the significance of widely used social media platforms such as Facebook, Sina Weibo and Twitter in crisis situations. While there are some concerns that social media are vulnerable to rumours due to their informal structure and underdeveloped capabilities for verification (Sutton, 2008; Bunce, 2012), the optimists believe that the self-correcting nature of social media make them trustworthy (Crowe, 2012; Mendoza et al., 2010). With an emphasis on the constructed and interpretative nature of information, this research will explore the sociotechnical processes through which crisis information is created, disseminated, and evaluated on micro-blogging sites through the interactions among various participants. Actor Network Theory (ANT) will be deployed to analyze this social media-based crisis communication process, and to identify the actors—including technologies, people and institutions—that collectively shape the information environment. To understand how this process is entangled with the surrounding political and media systems in specific contexts, cases from China (focusing on Sina Weibo) and Australia (focusing on Twitter) will be analysed. The study will contribute to enriching theories of emergency communication, and will provide context-sensitive knowledge to improve the efficacy of communication in emergency situations.
1. Literature Review

1.1. Social media in crisis communication

Studies on public use of social media in crisis events and institutional use of social media for crisis management account for a large part of existing literature in this research area. In general, researches of public uses of social media in crisis is focused on individuals’ motivation for employing social media when crises strike. Academic have found how individuals use social media for variety of reason, such as emotional support (Sutton et al. 2008, Perng et al. 2012), or to maintain a sense of community (Reynolds & Seeger 2012; Lev-On 2011). Among these motivations, the search for information, especially timely information, is the primary factor driving people to use Facebook and Twitter. Researchers have reported a virtually instantaneous spike on social media platforms in response to crisis, while traditional media organizations lag behind. For instance, after the 2008 Sichuan earthquake happened in China, the first report regarding this disaster came out on Twitter (at that time Twitter was still available) (Mills et al. 2009). Keego’s (2013) study of 2011 Great East Japan Earthquake also documented that when traditional media broke down, and the Web became the primary means to obtain information.

Research also explores the public’s use of new media for organising emergency relief and ongoing assistance efforts. Gao et al’s study (2011), for example, documented how the affected deploy social media to make their needs heard after disasters strikes. In the comparative study of the role of Twitter in QLD flood and Christchurch Earthquake, Bruns and Burgess (2014) highlight the coordinating function of Twitter and point out that effective use social media can help the affected to reach attention and form an ad hoc public around the emergency events. Starbrid and Palen (2011) coined the term “voluntweeters” to describe people using Twitter to get involved in disaster relief efforts.

Prior studies of the potential of social media for emergency management are largely focused on two areas: outreach and intelligence gathering. In the first case, the contribution of social media in aiding emergency management department to disseminate information has been well studied. For instance, Bruns, Burgess, Crawford, and Shaw (2012) investigated the Queensland Police Service’s adoption of Twitter and Facebook in 2011 Queensland floods, showing the significant role played by social media in helping QPS spread situational information and official guidance to a wide audience. Similar work has been done by Procter et al. (2013) who analyzed tweets posted during the 2011 UK riots to demonstrate the ways the police used Twitter to engage with other groups to coordinate the clean-up after the riots. However, researchers have realized that the current state of government agencies’ employment of social media to engage with the public still remain at the stage of a traditional style of ‘broadcasting’, calling for more innovative way to employ social media by government agencies (Procter et al. 2013, Bruns et al. 2012). Intelligence gathering is another major institutional use of social media in crisis events. Palen et al. (2009) analyzed the intelligence-gathering capabilities of participants of Facebook groups set up to identify the victims of the Virginia Tech shooting before authorities publicly identified them. Coombs and Holladay's (2012) study suggested the potential of monitoring social media content in disasters to determine the public’s real-time sentiments. In the case of natural disasters, researchers use Twitter streams to assess the magnitude of an earthquake, and use the “aftermath” of a spike on twitter to analyse the natural disaster’s impact on people and structures (Sakkaki 2010).
1.2. Information credibility of social media content in crisis

The widespread use of social media in emergency situations has triggered concerns among emergency organizations and researchers that social media enables the rapid spread of rumours and misinformation, which may lead to serious consequences in crisis circumstances. Researchers have looked into factors affecting information consumers’ perceptions regarding content credibility as well as their information sharing behaviours. Morris et al. (2012) looked at how content and user profiles affected audience verification of information credibility through a large-scale survey study. Tan and his colleagues (2014) investigated how wording can affect the audience’s perception of information quality on social media. Shi and Whinston (2014) examined how tie strength moderate information sharing behaviour on Twitter, and found that information from weak ties is more likely to be shared on Twitter.

Apart from these user-centred studies on information credibility issues, other researchers work on technical solutions to this problem. For instance, there is plenty of scholars working on technologies that can be applied to automatically assess information quality and detect rumours in crisis situations. Castillo et al. (2011) studied the dissemination of information on Twitter in the 2010 earthquake in Chile and concluded that online rumours have certain features: URLs tend to be positively correlated with credible news, tweets which include negative sentiment words are positively correlated with credible news. Furthermore, Gupta et al. (2012) have identified 50 variables that indicate information quality. Likewise, Procter and colleagues’ (2013) later study of Twitter use in London riots suggested a common lifecycle of rumours in emergency situations. Notably, similar research has been done with Weibo posts. Based on earlier studies on rumour detection, Yang et al. (2012) conducted a rumour analysis on Weibo, and identify certain new features - such as location, devices - that work effectively to identify false information in the Chinese Weibosphere.

Although prior studies on technical solutions have promise for the evaluation of social media content, at this stage it is equally, if not more, important to look into the dynamics underneath the surface, and to explore how crisis information comes into being in the first place. This will also benefit the future development of information quality detection tools. To do so, we will have to reject an information-as-objective point of view. Those researches I have mentioned above unitedly perceive information quality as objective, therefore can be assessed with objective standards of “truth” or “fact”. Like Shannon (cited in Gleick, 2011) famously declared, “meaning is irrelevant to the engineering problem”—that is, human psychology and subjectivity have long been neglected in the information science community. However, from a media and communication studies perspective, only after being received, interpreted and validated by the humans, can signal/content be called information (von Foster, ibid.; Potts 2013). While an objective perception of information may be appropriate for information science perspective, to view information quality as a perceptual and subjective variable accommodates my research task—to explore the collaborative, conflictual and constructed aspects of the communication exchange process. Such an information-as-subjective point of view is especially relevant to a situation where there is a huge volume of information. In tandem with information abundance comes an increasing sense of an absence of meaning (Dupuy, cited in Gleick 2011) and increasing difficulty in making sense from the “infoglut” (Andrejevic 2013). As concluded by Gleick (2011p.419) “as ever, it is the choice that informs us”, and this ‘choice’ is not necessarily by information consumers themselves, but could be...
made by traditional media agencies (White & Fu 2012), government agencies (Fu 2012), or the algorithms (Gillespie 2014).

2. Program and Design of the Research Investigation

2.1. Theoretical framework

The central objective of this study is to examine the making of disaster information, particularly to explore the role played by different entities to shape and value crisis information, so both information and information quality are perceived as constructed and interpretative terms. Actor Network Theory (ANT) perfectly fits into this research agenda.

First of all, ANT provides an excellent theoretical lens to study the information construction process which involves multiple participants, including individuals, government agencies, and the media platforms. ANT is a framework and systematic way to consider the progressive constitution of a network in which both human and non-human actors assume identities according to prevailing strategies of interaction. ANT suggests that all participants, referred to as actor or actant, whether they are human or nonhuman have equal agency to affect any given situation. By deploying these approaches, a social media-based communication can be conceptualized as a network in which individuals, media agencies, government entities, and even social media platform itself are actors who take roles in shaping the media environment. Communication, information, meaning or values are produced via the relations among networks of actors, and the power that emerges from dynamic configurations of these actors. Also, ANT makes a cross-platform analysis of crisis communication possible, because instead of being considered as neutral venues where communication exchange takes place, micro-blogging sites are perceived as equal participants that are constantly interacting with their users and with other technologies to collaboratively shape the media ecology.

In the second place, ANT provides analytical tools to trace how crisis information comes into being. ANT analyses negotiations between actors, and the most important of these negotiations is "translation" – a multifaceted interaction in which entities (1) construct meanings and definitions, (2) get others to accept definitions and meanings, (3) define representativities, and (3) co-opt each other in the pursuit of individual and collective objectives (Callon 1986). If we analyze crisis communication also as a set of negotiations, then the process of constructing meaning of crisis information can be conceptualized and systematically analyses through these translation stages. Liza Potts (2014), one of the first researchers to deploy ANT as a practical method to analyze web-based communication exchange in natural disasters, has applied this four-step approach to analyze how participants translate data into information - and then knowledge - through an extended process of network formation and mobilization. Potts’s study demonstrates the applicability of ANT to the translation of social media content.

2.2. Research question

The overarching task of this study is to explore the following question: How is disaster information on social media constructed by various participants that span different professional and organizational identities and contexts, such as traditional media, government agencies, individuals, and micro-blogging platforms themselves?
This constructed nature of crisis communication requires an investigation of the actors and their interests in this construction process, this leads to the second set of objectives to find out: Who are the major actors in shaping, evaluating and validating information during crisis situations? What kind of messages or narratives are they trying to create?

2.3. Data collection and analysis

Micro-blog data of two cases – Queensland Floods and Sichuan Earthquake – is collected through API. To examine the general features of micro-blog based communication in these two cases, content analysis of micro-blog data set will be used to examine key themes and topics. Burgess and Bruns (2013) have proposed a set of already-established metrics to guide comparative studies of social media’s role in ‘acute events’, particularly based on Twitter data. To use a standard analysis metric can improve the comparability of findings from difference cases.

To trace the process of information creation process in times of crisis, I will combine ANT with digital methods. More precisely, four-stages of translation from ANT will be harnessed as an analytical tool to map the process how micro-blog data is transformed into information through networking between actors. Various computational tools will be needed to materialise this process. The usefulness of digital methods for this study can be exemplified with Richardson Rogers’ IssueCrawler. IssueCrawler is used specifically to map issues, their key participants, and controversies.

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The Case of opendataportal.at


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Abstract: Open Government Data is focused around the idea that by opening up government data sources in an organized manner, the public will take advantage of these additional data sources, integrate them in products and services and will subsequently increase personnel and public welfare. However, the mechanisms of opening data as a mean for innovation are by no means restricted to the public sphere. In contrary, it was the private sector which was the precursor of open data and open information as a mean to spur innovation. In this reflection we present the motivations of private and public bodies to open up parts of their data sets and the project opendataportal.at, which serves as a portal to private sector data of companies, NGOs, academic resources and data voluntarily provided by private persons.

Keywords: open data, business data, innovation, data portal

Public administration has a long term arcane tradition to be restrictive when opening up data and information (Stiglitz, 1998). Data has a value, easily determined by the costs of creation, transmission and storage as well as billable costs. Besides these direct costs, data and information is also characterized by the information paradox: The value of information can only be determined after its creation (ex-post) (Arrow, 1962). Another unusual property of information is that it increases in value by sharing, unlike traditional goods, which deteriorate by usage (Bakos et al., 1999). However, this paradox nature of data and (digital) information is hard to fathom.

For a long time, line budgets have been the mean of choice for government departments, budgets which naturally grow over time as current year expenses are taken as the minimum budget for the next year, raising the incentive to demand more money than required. However, such a budgeting principle makes it very unlikely to consider detour profitability or to deliberately raise this year’s investments for greater savings in the next period. In this regard, the concept of opening up data according to open data principles sounds particularly strange: to give away a resource which is costly to collect and refine for a purpose and which may contain possible, yet unknown value.

Business is often viewed as a game or a gamble in which success is always at risk1. Releasing potentially valuable data sets with the hope, that indirect revenue will yield higher profit in the

1 http://www.managementguru.net/there-is-no-business-success-without-risk/, accessed 2014-09-29
future is part of business considerations. In this area of tension, precursors of openness can be easily identified in the private sector. Enabled by internet network effects, cheap connections to the home and increasing processing capabilities of personal computers (Thomas L. Friedman, 2005), around 2000 the idea of open innovation got viral. According to Chesbrough, at its core open innovation is the idea that firms use external ideas to advance their business. In order to support the inflow of ideas, usually data and information of the problem domain at hand has to be released.

In 2000, the Canada based mining company GoldCorp released a 400MB data file with geological survey information to the public. Usually, this sort of information of a mining company is treated as an invaluable asset: Knowingly interpreting the data is the guarantee for years of income. However, GoldCorp would have spent an unreasonable amount of time inspecting this amount of data and the digging situation was dire. Thus, in a much-noticed step, the company open sourced its survey data and called for the GoldCorp Challenge: The data analysis yielding to the highest exploitation of gold would be rewarded 575,000 USD. GoldCorp was able to perform this bold and unique step as exploiting the actual gold deposit still requires physical access to digging sites. The competition was won by an Australian consortium, which never visited Canada before and was actually specialized in visual analytics. The GoldCorp challenge is just one example of open innovation, prominently presented in the book Wikinomics by Don Tapscott & Anthony D. Williams (Tapscott and Williams, 2010).

Unlike the case of the GoldCorp challenge however, companies releasing data as a mean to spur innovation are rather the exception than the rule. While information is a good which increases in value by sharing, it is important to ask the question: Value for whom? Information is a precious good in the hands of the holder and the decision whether and which released information is likely to increase revenue through open innovation is risky and requires considerable efforts. In 2008, Pisano and Verganti presented a collaboration model which could serve as a framework for decision makers to decide which form of collaboration (and, as a consequence, which data to release) is right for them. They present four basic models of collaboration among which to choose, depending on the desired external participation governance structure and the participation level which may be open or closed (Pisano and Verganti, 2008). While, ideally, the pursued goal should influence the continuum of participation method and governance structure, decisions as such get also influenced by company culture and the enterprise-internal, pre-existing governance structure.
Despite some remarkable early success, open innovation in business is still not data driven - the idea of having a central data portal as a single point of access towards data sets has truly become popular within government. In the next section we will provide characteristics of open data in government vs. non-government as a motivator towards the feasibility of non-government data portals.

1. A Characterization of Open (Government) Data

With an ever increasing urge towards crowd sourcing as a mean to spur open innovation for more sustainable business, will a centralized data portal be beneficial to companies and SMEs? In order to narrow down that research question, we provide a comparison of government data portal characteristics and NGO operated data portals.

A non-government data portal is a data portal which is operated by a non-government organization. NGO data portals are by no means novel. The world-bank is one prominent example of an international organization, operating a data portal since 2010\(^2\). One motivation for international organizations and large NGOs to foster transparency through releasing open data is to legitimize their work. However, this article focuses on data portals containing data sets of diverse entities comprising of traditional companies, smaller NGOs and private persons. The term *traditional company* is certainly vague, but we understand it as a collection of individuals pursuing a common goal with monetary interest.

The motivation for open government data is to foster economic growth, to strengthen trust in the established institutions and to improve public services (Open Knowledge Foundation, 2012, pp. 4–5); NGOs instead seek to fulfill the stakeholder will which is likely to increase revenues by means of open innovation. With regard to the aforementioned Pisano und Verganti, only a very specific amount of data and information will be opened.

\(^2\) http://data.worldbank.org/
While the government releases (meta-)data sets according to well agreed principles (Sunlight Foundation, 2010; Tim Berners Lee, 2010) and embedded within a legal regimen (FOIA or licenses like CC-BY), non-government open data initiatives do so according to their very specific needs and according to existing good practice, possibly following industry standards or marketing needs.

Government open data is mostly provided on a centralized and dedicated open data portal, which either holds metadata and data, which enables powerful visualizations and analysis tools on a central web site, or merely serves as a metadata repository (Braunschweig et al., 2012). The rationale to this is that governments are constrained by budget and knowledge so they try to consolidate their IT-infrastructure at a higher level, which ultimately leads to a central (meta-)data portal. NGOs and especially business entities are defined by their USP and seek to maintain this USP by erecting very dedicated portals, conveying their very specific company culture, philosophy and ideology.

Government bodies may be forced to offer as much data sets as possible, imposed by eg. a freedom of information act. In absence of legal obligations, the open data principles apply. One of these principles demands completeness, “reflecting the entirety of what is recorded about a particular subject”. However, this only applies to certain data sets and not necessarily to the entirety of a government domain. On the other hand, NGOs and especially enterprise bodies will be much more restrictive and release only such data sets and information, which are likely to fulfill their envisioned goals.

Once government data is released to the public, it will be monitored both by government and the public in respect to the open data principles. One of these principles is timeliness: “Whenever feasible, information collected by the government should be released as quickly as it is gathered and collected”. Further, one often occurring metadata field is periodicity, i.e. the frequency at which a dataset gets (re-)published\(^3\). Once a published dataset gets older than the specified period, the obligation arouses to renew the data resources, regardless of actual usage, utility or generated welfare. Data sets of non-government portals are not constrained by such obligations: Suppliers are free to offer data sets at any rate they decide, which is likely to be only once or as long as the intended purpose has been fulfilled, an accompanying marketing campaign has come to an end or the goal could not be reached. Government bodies, on the other hand, with the historic obligation to care for public goods, are more likely to release data sets without the immediate need for revenue: Open data is a public good\(^4\).

\(^3\) http://dublincore.org/documents/2012/06/14/dcmi-terms/?v=terms#accrualPeriodicity

\(^4\) http://www.theguardian.com/commentisfree/2014/may/12/response-confuse-open-data-sharing-government
Table 1: A characterization of open government vs. non-government data portals

<table>
<thead>
<tr>
<th>What is the object of study?</th>
<th>Open Government Data</th>
<th>Non-Government Data and Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why is the data offered?</td>
<td>to foster economic growth and to strengthen the established institutions</td>
<td>to fulfill the stakeholder will, to foster open innovation, to raise revenues</td>
</tr>
<tr>
<td>Who provides the data?</td>
<td>Government entities</td>
<td>Business entities, NGOs, private persons, associations of international law</td>
</tr>
<tr>
<td>How is the data provided?</td>
<td>data is provided according to well-established and agreed principles</td>
<td>data is provided according to the needs of the issuing party and existing good practice</td>
</tr>
<tr>
<td>Where is the data provided?</td>
<td>dedicated open data portal, possibly shared among many entities</td>
<td>provided as part of an existing web site or embedded within a targeted marketing measure</td>
</tr>
<tr>
<td>How much data is offered?</td>
<td>Depending on legal backing: open by default, as much as possible, unabridged, uninterpreted</td>
<td>As much as necessary to fulfill a specific goal</td>
</tr>
<tr>
<td>Which data sets are offered?</td>
<td>data sets covering all areas of government action taking, produced or collected when fulfilling public administration tasks, devoid of data imposing a security risk or causing economic drawbacks</td>
<td>data and information seemingly suitable to fulfill a pursued goal</td>
</tr>
<tr>
<td>When is the data offered?</td>
<td>in a timely manner, recurring</td>
<td>one-time release of data and information</td>
</tr>
</tbody>
</table>

As has become clear, the characteristic properties of open government data publishers and non-government data publishers vary widely. With that in mind, the next section will present the case of opendataportal.at.

2. The case of opendataportal.at

Opendataportal.at is a non-government data portal, which is operated however in part according to the open government data characteristics, which are:

- Why is data offered: to foster economic growth
- How is the data provided: according to well-established and agreed principles
- Where is the data provided: on a dedicated open data portal, shared among many entities
- How much data is offered: unabridged, uninterpreted
- When is the data offered: in a timely manner, recurring
The project received cumulative funding of EUR 50,000 by Wikimedia Austria and a public grant by netidee.at, an association operated by the Austrian internet domain name registrar nic.at. The virtualized server hardware has been donated by Wikimedia Austria. After registering at the platform, companies, societies, private associations, research institutions, cultural institutions and private persons can upload data they have the rights for. The data platform uses the CKAN-software with plugins such as the data pusher and commenting on data sets enabled. CKAN itself is embedded within a Wordpress-powered CMS-system. The data has to be described according to the metadata schema already in use at the Austrian open government data portal data.gv.at (OGD Metadaten–2.2).5

The platform has been developed by the Austrian Federal Computing Agency (BRZ) which already operates data.gv.at and which, in turn, could re-use gained insights of the implementation of opendataportal.at to improve data.gv.at. The inception of the project started with a functional definition, assigning role members and duties, designing logos. Participation of team members was carried out using shared documents on Google Drive and communication happened using Google Hangouts and a dedicated, technic-oriented mailing list operated by Wikimedia.

Functional differences to data.gv.at are:

- Self-registration at opendataportal.at and upload of own data sets.
- Possibility to comment on data sets using CKAN-Disqus6
- Preview of tabular and geospatial data using the CKAN datapusher plugin7

The data portal went live on July 1st 2014. Within the week of going live, 10 press articles were published and private enthusiasts tweeted and shared the news on Facebook. As of now (Oct 1st 2014) 80 Datasets have been published by 17 organizations, which are constituted by advocacy groups8 (7), Business entities (6), Associations (3), and political parties (1). No data sets of private persons. Prevailing data formats are geotiff (26), CSV (26), jpg (25), rss (10), TXT (6), RDF (6). All data sets are published according to the Austria-ported CC-BY 3.0 license. Two applications make use of the data sets: One application simulating Austrian lottery results and another smart-phone app using diverse location based data sets of opendataportal.at and data.gv.at. On September 25, 25 persons attended the first public opendataportal (ODP) meeting, discussing concerns about data quality, accuracy and timeliness of data, and usefulness in general.

3. Discussion

Opendataportal.at is the first NGO-data portal which serves as a single point of access for sets of different parties. After three months of operation, it is too early to provide any conclusive remarks about success or failure, especially in the absence of a thorough evaluation framework. Companies

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5 https://www.ref.gv.at/uploads/media/OGD-Metadaten_2_2_2013_12_01.pdf  
6 https://github.com/ckan/ckanext-disqus  
7 https://github.com/ckan/datapusher  
8 Advocacy groups subsumes companies, whose majority shareholder is a public entity (direct or indirect) or a corporate body under public law.
have not yet seen the potential of a NGO data portal as a mean to provide data sets to spur open innovation and it is unlikely that this will ever happen in a substantial way.

For SMEs, which have understood the power of data and information as a mean for open innovation, opendataportal.at provides a free and easy to use platform on which those companies can share information for open data challenges or to crowd out competitors by giving away data on business areas they compete for market share. As such, opendataportal.at extends its original purpose of a mere data platform and fulfills a marketing need. Companies which are present on the platform are likely to be perceived as dynamic, innovative and approachable as customers can directly interact with company representatives. On the other hand, for large companies and advocacy groups, these benefits are only a minor incentive to share their data as they can provide a web space with very little effort. For example, if larger companies upload data onto a centralized data portal, they would potentially lose their USP of a tailored innovation platform, embedded within an overall marketing concept. However, larger companies and advocacy groups are increasingly forced to release data and information according to legal disclosure requirements such as the annual financial statement or product ingredients and composition. The disclosure of information like that might be regarded as an additional burden and in this respect opendataportal.at is a free to use platform to share this sort of information.

Concerning target groups, little effort has been made to engage private persons to share their data on opendataportal.at: Enthusiasts which upload their precious GPS tracks of clandestine paths through mountains, artistic and novel 3D-printing models or sensor-data of integrated circuits (IC) without open specifications. Data sets of this kind are available, but they get regularly shared via Dropbox, Google Drive or the iCloud. However, again, such data sets rise in utility, if they get shared on a dedicated platform which can take advantage of domain knowledge: GPS tracks laid over maps, 3D printing models with interactive previews and IC sensor data shared within a dedicated developer community, however none of these functionalities are provided at opendataportal.at. The main potential and long-term meaningfulness of opendataportal.at is, considering the above argumentations, thus with associations, societies and leagues.

From a technical point of view, the chosen technology (CKAN & Wordpress) was stable and meaningful, and the decision to support comments on data sets provided only little additional effort to fight against comment spam. The obligation to describe data sets according to the Austrian Government Metadata scheme 2.2 was worthwhile, a proof for the general applicability and domain neutrality of the scheme. One minor inconvenience though got noticed during the data import: pre-defined categories of public administration areas of action taking do not map seamlessly to NGOs fields of action. In this area the metadata scheme would profit from a domain-specific, pluggable category scheme. One unsolved issue is data quality. As there are no processes in place which would enforce quality checks, quality assurance is entirely ceded to the public. Their means to provide feedback are either the platforms discussion facilities or by getting directly in touch with the providers through the respective metadata contact point.

Finally, no ex-post metrics have been established which would help to determine success or failure of opendataportal.at. Such an assessment model should contain qualitative and quantitative measures to assess the portals efficacy: utility of released data sets, market penetration, news spread, uptake by developers and users, and a rationalized framework to gather feedback.
References


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A Structured Analysis of Austrian Digital Identity for e-Government Services


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Abstract: Digital identity is a set of data that represents a person or a subject in the digital world. As a key technology to realize identification, authentication, and access control in the cyberspace, digital identity is fundamental towards trustworthy and reliable online transactions such as e-Government and e-Commerce services. Meanwhile, digital identity is a complex topic entailing interconnected issues along the social, legal, organizational, and technical dimension. This paper is a reflection of an ongoing study to investigate and analyze the aforementioned issues in the Austrian as well as EU context. The study surveys the state-of-the-art in multiple dimensions and elicits the domain experts’ opinions by online opinion polls and direct interviews. We present the result of our structured analysis, which provides policy makers, social researchers, and technologists an insight into the concerns and potential solutions for successful deployment and acceptance of digital identity.

Keywords: digital identity; e-Government; eID; e-Signature, privacy; Austria; EU

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Digital identity (or electronic identity, eID) is a set of data that uniquely describes a person, an organization, or a thing (subject or entity) and contains information about the subject’s relationships to other entities in cyberspace (Windley, 2005). The information about the subject is the subject’s attributes, including characteristics such as nationality, data of birth, height and so on. Digital identity has been created to solve three challenges in the cyberspace, i.e. identification, authentication, and access control, which are necessary elements of e-Government and e-Commerce services (Camp, 2004). Digital identity benefits digital life in the following ways: individuals can conduct their personal business and access services online with less time and effort; companies can develop new and more efficient business models based on digital identity systems and enable more online transactions; the government can expand its online services to
serve more of its citizens for efficiency and transparency. The proper use of digital identity can increase online security and reduce incidents of misuses and abuses in the cyberspace.

In general, there are two main forces behind the digital identities used today: the public sector national eID programs and the private sector service and identity providers. Digital identities in the private sector are used in many online activities covering a lot of personal information (e.g. social media, web, email, and online retailer etc.\(^1\)). Among them, digital identity driven by the public sector is often regarded as the “official” digital equivalence of identification documents. Consequently, digital identities give rise to security, privacy, liability, and trustworthiness concerns. Since they are designed to represent a natural person, these types of digital identities become the de facto choice for identification and authentication to e-Government services such as tax declaration or online voting. Within the EU context, digital identity is related to two main topics: digital identities used as identifiers (e-Identity) and e-Signature used as a method of authentication for other electronic data (EU Directive, 1999). It is a common practice within the EU member states that the public administrations work together with Certified Service Providers (CSP) in the private sector to issue and manage digital identities (IDABC, 2009).

As an extension of our physical identities into cyberspace, digital identities are constantly evolving. The rapid technological development continuously challenges the status quo of society, raising a great variety of novel questions. This paper is a reflection of an ongoing study, which investigates social, legal, organizational, and technical aspects of digital identity and identity management in the Austrian and EU context. Based on the prior art (ENISA, 2011), (Elliott & Birch & Ford & Whitcombe, 2007), (Schunck, 2013), our study considers actual developments of digital identity, with a balanced focus on the social, legal, organizational, and technical aspects, as well as the their implications on social security and liberty within Austrian. The goal of the study is to identify the gaps and propose an actionable research and development agenda for digital identity in Austria.

1. **Methodology**

Our analysis entails the following high-level steps: First, social, legal, organizational, and technical requirements are elicited from stakeholders and other experts. We focus on the requirements of the approach and process for establishing and operating identity management in Austria. Second, we conduct a systematic review to gain a broad overview of existing standards, research and development projects, as well as industry trends. Third, based on the information gathered, we use questionnaires and interviews to collect experts’ opinion on various issues related to digital identity such as the use of biometrics, usability, security, and privacy. Finally, the information is further synthesized and analyzed to identify existing gaps and potential solutions. The gaps are identified along the categories of security, acceptance, dissemination, and usability.

Furthermore, in order to gain (i) a solid overview on the state-of-the-art – in Austria as well as in Europe – and to (ii) assemble the manifold aspects that have to be taken into account regarding eID in general and (iii) the specific Austrian conditions, namely the Citizen Card (“Bürgerkarte”) in particular; a comprehensive mixed-method research approach was taken. The various socio-scientific research activities are described as follows. We conduct an opinion poll focusing on the

\(^1\) See https://www.flickr.com/photos/fredcavazza/278973402/ for an overview of various digital identities associated with a natural person
technical aspects of digital identities. This survey is provided as a quantitative online questionnaire that targeted a Europe-wide audience of experts in the ICT and eID sector. We use direct expert interviews to gather opinions and knowledge on the legal, organizational, and social aspects of digital identities. These interviews are conducted as qualitative face-to-face consultations on the basis of a code of practice regarding the topics mentioned above, and have an emphasis on the current Austrian situation and conditions. Obviously, special aspects of “organizing” eID are highly interconnected with social and political aspects (i.e. citizen’s acceptability or the European framework). Finally, we set up a round table discussion in a joint expert workshop. Consequently, as the last step and milestone supporting the previous research, we use the interdisciplinary expert workshop to review and discuss the results. Based on a variety of possible developments, adequate measures are discussed with regard to possible scenarios and prospects for (state-provided) Austrian digital identity.

The mixed-method approach ensures a broad collection of experts’ perspectives on chances and risks in terms of the development of digital identity (in Austria) in a seminal and multidisciplinary manner. The excessive literature review and state-of-the-art analysis as well as the socio-scientific research conducted in the course of the study emphasizes the highly interconnected topics such as security, privacy and data protection, and end-user (i.e. citizens’) perspective and acceptance.

2. Survey of Digital Identity Landscape

2.1. Review of Digital Identity Usage in Austria and EU

Early implementation of digital identities in Europe was mostly based on Public Key Infrastructure (PKI) cards. Many countries encounter the problem of PKI cards, which are bad usability due to difficult installation and usage, and the costs of the card reader. Despite the problem, Germany developed their new national ID card, which includes an eID function based on the same system. One of the few implementations, which gained a lot of traction, was the Estonian eID. Although this implementation was also based on a PKI card and used the same techniques as other countries, the major achievement is that the benefits for their citizens outweighed the difficulties and costs by far. This was achieved by offering a multitude of applications right from the start. Another enabling factor of the Estonian eID is the fact that it can be used not only for e-Government services such as online voting in parliamentary elections, but also for public transport and as a banking card.

The Austrian eID framework “Citizen Card” was introduced around 2004. It is envisioned as a key enabler for the rollout of e-Government and other public and private sector online services. The Citizen Card is designed to be technology-neutral, and provides a digital identity token and secure and privacy-friendly signature-creation mechanism that enables (i) qualified electronic signature, (ii) "sector-specific" identification; and (iii) representation, whereby the holder can optionally carry out legal transactions on another person's behalf (OCED, 2010). The Citizen Card is originally a form of PKI card. However, because of the bad user experience with PKI cards, some countries started to implement mobile-phone-based solutions. For example, Austria introduced the “Handy-Signatur” (mobile signature), and Finland used their existing PKI card system and extended it with a central private key storage and mobile TANs. Because of the far better usability, these systems started to gain some attention. Many of them are still far behind the expectations. Among the main challenges are suboptimal user experience and lack of applications to let citizens get accustomed to using their digital identities.
Just recently, the EU adopted the regulation on electronic identification and trust services for electronic transactions in the internal market (eIDAS), which will repeal the 1999 eSignature Directive in 2016. The significance of eIDAS is that it pushes for mutual recognition of eID and determines the legal framework for e-Signature within the EU.

As a comparison, Table 1 shows the usage of eID in Estonia and Austria.

<table>
<thead>
<tr>
<th>Country</th>
<th>Inhabitants</th>
<th>Issued Cards/eID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>1,300,000</td>
<td>ca. 1,020,000²</td>
</tr>
<tr>
<td>Austria (card)</td>
<td></td>
<td>ca. 78,000³</td>
</tr>
<tr>
<td>Austria (mobile phone)</td>
<td>8,400,000</td>
<td>ca. 170,000⁴</td>
</tr>
</tbody>
</table>

2.2. Online Survey and Expert Interview

The online survey was conducted in March and April 2014 and was completed anonymously by 25 ICT experts, half of which were Austrian, the other half from other European countries. The survey includes technical questions concerning security tokens for user identification, biometric identifiers for eID, relevant criteria of eID from an end-users’ perspective, and approaches to secure personal data utilized by eID. It also includes legal questions aimed at the role of the EU and the member states regarding regulatory frameworks and the relations between governments and service and identity providers with a focus on responsibility, accountability and therefore legal certainty. Data protection is another key aspect. On a societal level, the emphasis of the survey is on the possible or desirable functionality and usability of state-provided eID, and the end users’ subjective opinions on their acceptability. The personal interviews were conducted with eight experts between February and April 2014, the timeframe per interview was between 60 and 90 minutes. The final expert workshop took place in early August 2014, in order to review and discuss the study results.

The majority of experts in the opinion poll placed the appropriate scope of regulatory frameworks for eID on the EU-level. Regulations on the national level are not considered sufficient in (legal) preparation for implementation, expansion, usability and interoperability of digital identity, at least not in the medium term. However, in the circumstantial expert interviews, doubts were expressed to which extent such regulatory frameworks on EU level are realistic in the nearer future. Consequently, opinions stating that Austria should follow and/or extend its innovative approach toward state-validated eID further, not holding back whilst ‘waiting’ for EU regulations, were expressed as well. The importance and responsibility of the EU along with the national governments for eID systems due to economic and user acceptance concerns was emphasized. To some extent service providers were seen as conceivable as well, as opposed to identity and technology providers. Digital identity that are accepted, or, respectively, provided by governments are widely considered as the appropriate authentication for the greater number of (economic)

² http://www.riso.ee/en/content/ten-years-eid-ecosystem#.U9-PEYCSyXo
³ http://www.parlament.gv.at/PAKT/VHG/XXIV/AB/AB_15141/fnameorig_322471.html
⁴ http://www.parlament.gv.at/PAKT/VHG/XXIV/AB/AB_15141/fnameorig_322471.html
⁵ Note that potential expert groups are identified and invited by emails.
online services, such as banking, shopping, telecommunication, and cloud services. The obvious exceptions were social networks. Social networking was basically considered as functioning on different societal levels following different parameters. As a result, social networking tools and services were rather seen as to be excluded from state concerns since they are not eID “matters” requiring “valid” authentication as in the cases of e-Commerce.

Austrian experts’ opinions on the specific Austrian Citizen Card varied quite widely, which seems partly to be due to the history of the intricate process of its implementation. The main positive and negative positions that were derived from our interviews can be summarized as follows: On the one hand the Citizen Card was considered a valid well-founded trustworthy eID (in terms of solid technical grounds, security and sustainability), and it was also said that Austria is a pioneer concerning state-provided eID. On the other hand, the usability – especially in terms of the provided functionalities – was not considered sufficient. Also, suboptimal public relations could be a reason for the rather dissatisfactory level of acceptance by the end-users so far.

In summary, the findings gained to date are focusing on these main areas that turned out to be of utmost importance: issues of security and privacy; questions aiming at the societal acceptance of such relatively novel forms of identity (and their management); and also practical aspects of the added value (in terms of efficiency, utility and functionality) eID is able to offer.

3. Analysis

The data is synthesized and analysed along a two dimensional matrix. The first dimension is the Legal (L), Social (S), Organizational (O), and Technical (T) aspect; the second dimension includes issues on Security (S), Acceptance (A), National/International Dissemination (ND), and Value (V). The analysis is based on the applicable intersections of the matrix, e.g. LS refers to the analysis intersecting Legal and Security. The analysis can be regarded as a consolidated view of domain experts with respect to various issues related to the concept of digital identity.

The details of the analysis are given below.

**LS**: The security of a digital identity has to fulfil the legal requirements.

**SS**: A digital identity must guarantee that it matches with a natural person.

**OS**: The security level of a digital identity should not be changed or compromised across organizational boundaries.

**TS-1**: A digital identity (including the identity token used) should have a strong link to the real person in order to provide a sufficiently strong protection against abuse. Existing technologies such as biometrics might be used.

**TS-2**: Technical methods (e.g. cryptography or authentication protocols) used for security must also provide a certain level of assurance.

**LA**: Data protection should be emphasized in the experts’ analysis of the legal frameworks and conditions.

**SA-1**: Digital identity should include pseudonym functionalities. This means that the user should be able to remain anonymous to a service provider, but in special cases (e.g. law enforcement) the real identity can be revealed by an authorized party (i.e. qualitative anonymity).

**SA-2**: Digital identity should include attributed-based access functionality, in which citizens can decide which attribute can be accessed by a service provider (e.g. only e-mail address or only age).
SA-3: It is beneficial to raise awareness of eID in the public. This should help to reduce the fear of a “transparent citizen”, and to reduce psychological barriers regarding new methods and techniques for eID use.

OA: Government-issued digital identity must be accepted by all public authorities.

TA: The technologies and technical process used for eID authentication must take into account privacy protection, and avoid giving the user an impression of being a “transparent citizen”.

LND-1: Further study should be conducted to identify gaps in the legal framework and conditions related to digital identity.

LND-2: eID solutions must take into account compatibility to existing e-Government procedures. If not, an adaptation of the e-Government Act must be made.

LID: The EU member states must closely follow future developments at EU level when developing country-specific eID programs.

OID: The compatibility in the context of a possible future EU-wide eID solution should be considered. Thus it is unclear whether in the current state, pure national solutions should be implemented in the near future.

SV: There should be a wide range of possible use cases and services available for digital identity, in order to make citizens accustomed to use them.

OV: There should be enough defined interfaces and procedures for identity verification for different organizations in the public and private sector.

TV-1: Technical tools for eID use must be available to service providers.

TV-2: The eID identification and authentication methods must be easy to use for citizens.

4. Conclusions

This paper is a reflection of our ongoing study to investigate and analyze issues related to digital identity for e-Government services in multiple dimensions in the Austrian and EU context, with a goal to identify gaps and propose an actionable agenda for digital identity in Austria. In order to analyze the complex topic of digital identity, we divided the problem into four dimensions: social, legal, organizational, and technical. We surveyed the state-of-the-art and elicited experts’ opinions by online opinion polls and direct interviews. The gathered information was analyzed along two dimensions in a matrix structure. Our analysis shows that despite the progress, there are still gaps and problems in the current legal, social, organizational and technical landscape. Solving these problems requires a clear and coordinated strategy and close collaboration of the stakeholders from the public and private sector at national and international level.

References


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Why Electronic Voting?

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Abstract: Scientists have been studying electronic voting for 30 years, and some countries have been using it for almost 20 years. Yet, arguments in favor of its adoption or against it usually take into account only a limited subset of the issues at stake. As we show in this paper, no study has ever tried to draw a comprehensive picture of the interplay between social and technical aspects of the voting process. We claim that this kind of interdisciplinary research is needed for the scientific community to be able to exert its positive influence on stakeholders. We propose some urgent research questions that to our knowledge have no clear answer.

Keywords: e-Voting, security, trust, electoral process;

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Electronic voting experiences already span a significant period of time. Computer scientists have been working on the subject of exploiting cryptography to secure elections for the past 30 years, and computer-aided real-world elections have been running for more than 20 years, since the deployment of DRE machines for binding national elections in the Netherlands in the late ‘80s. Even at the first look, there is an evident divergence between theory and practice over the critical issue of security. The academic literature proposes complex solutions to deal with the peculiar and often contradicting requirements of this application, whereas public bodies are barely taking into account the most basic design principles (Schryen & Rich, 2009; King & Hancock, 2012).

In addition to the technical gap, there is another issue that still requires investigation from a social sciences perspective: trust in e-voting system is a crucial element when it comes to the actual use of electronic system within the political process. There are very few analyses of the broader social implications of a technology-driven paradigm shift in the electoral process (Oostveen & van den Besselaar, 2004), and none about the effective awareness of voters about its possible consequences, especially if we acknowledge that technology is more than a set of neutral tools assisting the satisfaction of preexisting normative criteria (Witschge 2008, 79). Voting is a specific social practice, crucial in a democratic regime, because it represents a ritual expressing power relations and political values (Kerzter 1989). Changes in the ritual of voting (with its symbols and
Reflection Papers, Work-in-progress and Ongoing Research Papers

meanings) might lead to changes in the outcome of the electoral process, such as legitimization and accountability of the representative democracy. In the following sections, we review the available literature to the best of our knowledge, and we highlight some unanswered questions that we deem important to the adoption of electronic voting in political elections.

1. Security

"The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures." (United Nations, 1948)

Simplifying to the extreme, the two broad categories of technical requirements for a voting system come directly from the Universal Declaration of Human Rights. Universal and equal suffrage must be supported by accessible systems. Equality and freedom come from security measures guaranteeing that eligible voters are able to anonymously cast a single vote.

On the issue of accessibility, electronic voting is often waved by its supporters as the only way to reach the totality of voters, yet there are studies that confute this thesis (Oostveen & van den Besselaar, 2009). Better user-centric design processes and the progress in narrowing the digital divide could, in principle, lead to the solution of accessibility issues, since there are no contradicting requirements to satisfy at once. Thus, we will not discuss this aspect any longer.

Security issues are completely different. Equality can be guaranteed only if voters are properly identified to prevent unauthorized or double voting, and if cast votes cannot be modified without leaving traces or ignored in the count. Freedom can be guaranteed only when voters cannot be linked to their cast votes. For all practical purposes, the traceability and accountability processes that usually satisfy the former set of requirements clash against the latter.

2. Trust

Trust is an essential element of the democratic process especially regarding the secrecy and freedom to express a vote that will legitimate the choice of rulers for a whole country. Trust is also inherently linked to the idea of delegating power in a healthy representative democracy. Studies dealing with the key issue of measuring the “correct amount of trust” that e-voting systems deserve are progressing (Volkamer et al., 2011) although it is clear that technology is not a remedy for broken institutions, as the Brazilian case showed (Avergou et al. 2013). Still, taking trust into account might lead to further improvements in the knowledge of barriers or drivers for users’ acceptance of e-voting systems. In this domain, trust has a twofold meaning: it is a property of a technology and it is an attitude of the citizens. As we previously saw, it relates to the security of the system preventing frauds and guaranteeing the secrecy of ballots and the privacy of vote; it also relates to the amount of confidence citizens store in the electronic system. Trust as an attitude relates to the overall political and electoral process as well as to the trust towards institutions that guarantee fairness in the execution of the electoral process (Xenakis & Macintosh 2005). Another important factor affecting users’ perception of e-voting systems is the confidence with ICT and the related culture (eg. the symbolic and practical meanings of ICT). Summing up we can state that trustworthiness as a property of the system is influenced by ease of use, accuracy, and convenience conveyed by a certain level of perceived usefulness of the e-voting system (Schaupp and Carter 2005). On the other hand, trust as an attitude relies on the general confidence in the political
system and in the national ICT culture (Leidner and Kayworth 2006). How the properties of a technology and the attitude of citizens interact in building a robust and trusted e-voting machine is an open topic.

3. The computer science approach vs. real-world experiences

Cryptography provides the mathematical foundations for secure communication, processing, and storage of data. Over the last 30 years, scientists have proposed various cryptographic protocols (too many to cite), some with excellent features, but all with a common weakness: the system is a black box that has to be blindly trusted by the users. More recently, there has been a strong interest in solutions providing end-to-end verifiability, in which cryptography is cleverly used to allow voters to verify that their vote has been correctly recorded, and even correctly tallied, without harming privacy. The most successful proposals are Helios, Scantegrity, and Prêt à voter. While not completely devoid of weaknesses (Prandini & Ramilli, 2012), they represent the state of the art in security. However, their actual level of security is directly linked to the effective voters’ will to verify the correct execution of the electoral process. Is this an acceptable technical trade-off? Up to now, it seems this trade-off has not even been taken into account. Many countries started to test or even to massively deploy e-voting solutions, mainly based on two paradigms: Direct Recording Electronic (DRE), or online systems. DRE is the epitome of the black box approach, and has shown serious issues in almost every place it was used (Balzarotti et al., 2008; Oostveen, 2010, Gonggrijp and Hengeveld, 2007), leading to massive decertification in the U.S. and to their dismissal in The Netherlands1 and in Germany2. Online systems have been used for political elections in various countries in Europe, again showing various vulnerabilities (Schryen & Rich, 2009), caused by such issues as designs conceived under unrealistic adversarial models and poor coding. Furthermore, pure online voting systems are intrinsically vulnerable to vote selling, family voting and coercion threats, which among other concerns convinced Norway to abandon online voting (Nestas & Hole, 2012).

4. The peculiarity of electronic voting in political elections

Less-than-perfect technologies are routinely used for important tasks. It is a sensible choice especially when their negative effects can be somewhat easily reversed (e.g. financial transactions) or when there is no better alternative anyway (e.g. modern surgery).

As for any other social and technical process, not every deliberation calls for the same level of security. Evaluating risks and benefits, it is easy to imagine scenarios where electronic voting is an appropriate tool for decision making: for example when frequency and timeliness are fundamental, and/or the results of the deliberation have limited effects or can be easily reversed.

Political elections, however, present a very different situation. We claim that the conditions to deploy electronic voting do not hold. Risk is proportional to opportunity, motivation and damage inflicted by an attack. We believe that each of these factors is present.

2 http://www.bundesverfassungsgericht.de/pressemitteilungen/bvg09-019en.html
• **Opportunity:** many elections are won by narrow margins. It is not necessary to take control of a large number of votes to completely overturn the results. While with paper ballots this must be done vote by vote, complex systems where traceability must be limited to ensure vote secrecy are the perfect environment to mount a stealth attack, which could prey on the (relatively few) easiest targets and the most effective vulnerabilities, with no need for ultra-high impact actions.

• **Motivation:** even taking into account the difference between campaign promises and post-elections actions, some economic effects of having one party win over the other are quite easy to foresee (e.g. the attitude towards public spending in big infrastructures). With less-than-perfect systems, cybercriminals will be able to achieve almost any objective, given the right budget.

• **Damage:** the effects of a hijacked election are long lasting and affect a whole population. Reverting them could require decades; it could be outright impossible.

In short, we believe that before considering electronic voting systems for political elections, they should exhibit a set of security features not currently available in any existing proposal. Current efforts seem to be directed towards the development and adoption of metrics to evaluate the adherence of voting systems to the basic democratic principles, so that public trust is based on scientific data rather than emotional factors (e.g. biased media campaigns). But what if scientific measurements prove, as it would currently happen, that perfect security is not achievable? Should we stick with technical trade-offs between security and usability or should we consider social trade-offs before anything? By social trade-off we mean the autonomy for different actors (voters, politicians, policy makers, etc.) to state whether a voting system is acceptable. Different actors may have different imaginaries and agendas for using an e-voting system. Yet, there is a moral obligation to guarantee the democratic process, and again this moral attitude may differ from actor to actor. The role of the scientific community is to support an informed discussion taking into account the different positions and to make a decision on the democratic process considering both technical and social trade-offs.

### 5. Open questions

Some questions that could drive future research are stated here.

#### 5.1. Is electronic voting inevitable?

While pencil and paper voting has its own long record of vote fraud, it continues to provide a solution which is hard to compromise on a massive scale without anyone noticing, and easy to verify without any particular skill or tool. Moreover, real-world experiences have contradicted the claimed usefulness of e-voting in terms of addressing declining voter turnout, exclusion of some social groups, and high cost (Simons & Jones 2012);

#### 5.2. Is e-vote different from other social processes related to new technologies?

Commerce and payments are two processes profoundly changed by technologies (e.g. credit and debit card, online bank transfer) that are often compared to e-voting. Although confidentiality is also fundamental in the consumer decision of finalizing an Internet transaction, it is substantially

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different from an e-voting context (Choi and Kim 2012). Economic transactions require disclosing selected information in precise moments; political vote requires secrecy and total privacy.

5.3. Does e-voting lower the perceived importance of voting?

Voting via SMS or mobiles has been proved to be perceived as less urgent and important (Local Government Association 2002) but the population’s growing ease with ICT (especially among younger citizens) with online public consultations or e-petitions cannot be ignored, paving the way for the next generation of e-voting systems.

5.4. Do citizen perceive the link between elections and their own lives?

If political disaffection is a feature of contemporary democracies, can e-voting reverse it? The young participate less and less in the political life but are said to be those who benefit the most from ICTs, especially when it comes to political and electoral participation. Yet, there is little evidence to substantiate this claim (Local Government Association 2002; Payne et al. 2007). On the other hand, older generation have higher levels of trust in political and democratic institutions, leading to higher confidence in e-voting systems. Should we fear that both disaffection and trust could lead citizens to underestimate the risks associated with the hasty adoption of e-voting?

5.5. Is an “open box” verifiable process more valuable than a black-box-based one?

From a user perspective, an extensive survey combined with more fine-grained qualitative work is required to understand whether an open or black box process is more valued and trusted and what the implications are for democracy. Should the technical evaluations show that the only viable solution is one that requires strong user cooperation, how do we ensure that citizens understand and appreciate it? Trust has to be cultivated both at the technology’s security level and at the citizens’ level. A first move is to understand that a voting technique is a socio-technical system that has to be designed taking into account specific technology features as well as users’ perceptions and needs. A second step could be to adopt a social constructivist approach in order to grasp how power relations expressed and exploited within the traditional electoral process are affected by e-voting and their implications for the political rituals and social structures.

References


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E-Voting Development in Mongolia

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Abstract: This paper reviews e-voting development in Mongolia and presents analysis based on the lessons learned for further development. The presented findings are based on the implemented e-voting and smart NID card projects, research papers, observation of political parties interests and public opinions from thematic discussions and all forms of media and a wide range of government documents including unclassified documents of General Election Commission, Mongolia. This paper is important because much of analysis has not yet appeared in academic literature. In this research statistical data was presented in order to understand some challenges that might affect e-voting environment in Mongolia.

Keywords: e-Voting, Election Automation System, Smart NID card

The new Constitution, adopted by the Parliament of Mongolia in 1992, proclaims multi-party political system to build civil and democratic society. Mongolian election cycle is 4 years of parliamentary and local government elections, followed by presidential elections with one year interval. In last 2 decades, there were 19 elections each with lessons learned. The Mongolian People’s Revolutionary Party (MPRP) won the first multiparty election in 1992. The first election wins for Democratic coalition parties came in Presidential elections of 1993 and in Parliamentary elections of 1996. Election system has underwent tremendous evolution in terms of voting systems and procedures with the pressure from major political parties. The Mongolia introduced e-voting system in Parliamentary elections in 2012 and Presidential elections in 2013. We will analyse e-voting system of Mongolia using theoretical framework by proposed by Leenes and Svenson (2003).

1. Political Willingness

When Parliamentary elections results were publicly announced in 2008, it originated mass protests against MPRP, winning party accusing it in vote buying, inaccurate voter lists and vote counting (Ulziikhutag, 2009). After social and political devastation, major political parties decided to implement Election reform. A number of reforms were deliberated in 2010 and final amendments passed by Parliament of Mongolia in December 2011 only 6 months before the Parliamentary
elections (UNDP, 2013). There have also been many discussions about further Constitutional and Election system changes.

Furthermore, the political parties have demonstrated willingness and strong leadership in Citizen Registration and Election reform. Without political support and leadership, General Authority for State Registration (SAGR) and General Election Commission (GEC) of Mongolia could have difficulty in introduction of smart National Identification (NID) card and e-voting system in short time. It was a remarkable progress in introduction of new smart NID card within a year as previous plastic NID card was introduced in 10 years.

2. Legal Reform

The GEC proposed the package of laws namely Law on Election Automation System (EAS), amendments to Parliamentary Election Law, Presidential Election Law, Local Government Election Law, Civil Servant Law, Auditing Law, and Criminal Code. After one year of multi-stakeholder’s discussions, Parliament of Mongolia passed the Law on EAS in November 2011 and approved package amendments in December 2011, which is roughly 6 months before the actual Parliamentary elections (Toriin medeelel, 2011)

Major legislative changes include a) hybrid election system with 48 seats by first-past-the post system and 28 seats for proportional representation list on one ballot b) voter’s list based on new citizen registration system by GASR, b) voter registration with smart NID card c) increase use of ICT and automation in election related processes such as automated counting through vote counting machines due to new law on EAS d) out-of-country voting for eligible citizens. (UNDP, 2013) In addition, e) control hand counting was introduced in order to set trust for opposers of e-vote who blamed it for vote fraud using software configuration f) enhanced training for electoral staff including IT specialists and voter education and j) clear guidelines on election campaign, especially regarding media advertisement should be highlighted.

Furthermore, GEC conducted study on international experiences in e-voting system among 16 countries including US, Canada, Republic of Korea and Philippines. This study covered legal framework, election procedures and type of elections, coverage or number of voters, advantages and disadvantages of the proposed system (GEC, 2010). The next section will concentrate on the technical issues relating to e-voting system in Mongolia.

3. Technological Solution

Based on law on EAS, GEC has implemented e-voting project. The EAS consists of registration part with fingerprint recognition machines and printers for registration page; the server computers and connected workstations; and vote counting machines and network. The GEC has purchased 2,500 vote counting machines from Dominion Voting Systems with several billion MNT in 2011 (Dominion Voting Systems, 2014). Furthermore, three days before the elections the final trial for vote counting machines and merge of election results from local polls have been tested.

During Parliamentary and Ulaanbaatar city representative (Local government) elections, more than 3,000 registration and monitoring equipment, 2,446 vote counting machines and voting pages were distributed all electoral sections. However, out of 2,446 vote counting machines around 10 machines were broken and transferred to manual operation during these elections (Sukhbaatar,
2012). When the designated election time expires, the organizers each vote section commit the e-voting machine and it prints the summary of votes.

OSCE (2013) recommended that the GEC, in co-operation with the company providing the electronic vote-counting equipment (VCE), should ensure that the VCE accurately reports election results, including the number of invalid ballots cast. Consideration could also be given to establishing a formal certification process for the VCEs to be evaluated well in advance of Election Day by an independent and competent third party so that possible errors could be corrected before the equipment is dispatched to polling stations.

4. Social Aspects

The traditional culture of Mongolia is pastoral nomadism, which predisposes the people to high values of individual autonomy (Sumaadii, 2013). For centuries, Mongolian nomadic culture stimulated to adapt quickly to ever changing environment with open and flexible mentality. But, a market economy in democratic society required not only institutional and legal transformations, but also adaptation of new social values, attitudes and cultural patterns.

Numerous voter education activities were conducted before elections. These are a) GEC conducted public awareness activities on electoral essentials such as importance of voting, registration, time and addresses of polls, method of correct filling the electoral form, etc., b) commercial TV demonstrations dominated where the candidates promoted themselves in the electoral form filling and d) printed promotional materials were distributed to households where electoral form filling posters were included.

In the past, the voter list was not public information, inaccessible by political parties and civil society watchdogs. SAGR organized a nationwide campaign for citizen registration system during 2009-2011 and introduced smart NID card including biometric data in 2012. According to the SAGR news, 96 percent of voters received their free smart NID card before the Local Government Elections in November 2012. During Parliamentary, Local Government and Presidential Elections, voters arrive in person to local polls with NID card and can be read this card and check their biometric data (fingerprint) in the polling station (Toriin medeelel, 2012).

The voter turnout for Mongolian Parliamentary election in 2012 was 67.28 percent. Low voter turnout could in fact have related to procedural factors such as a) voting on a weekday and only until 8pm, whereas polls were open until 10pm in previous elections, b) the reduced period to thirty days for the election campaign, and c) registration and voting processes (UNDP, 2013). Empirical observation shows that number of voters that tend to arrive close to deadline is high. The voter turnout is decreasing in many countries (Wattenberg, 1998). This trend is same for Mongolia, voter turnout steadily dropped in elections (to see Table 1). Prohl & Luvsandendev(2008) found that a correlation between belief in voter’s influence and satisfaction with the political system, which corresponded with election cycles. In the future, other reasons that effect the personal choice to vote shall be explored in detail. In overall, it was a successful deployment of ICTs in election process there was no recorded invalid vote page.
Table 1: The results of Parliamentary and Presidential elections 1992-2013

<table>
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<tr>
<th>Years</th>
<th>Invalid votes</th>
<th>Voter’s turnout</th>
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<tbody>
<tr>
<td></td>
<td>Parliamentary</td>
<td>Presidential</td>
</tr>
<tr>
<td>1992</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>3.54%</td>
<td></td>
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<tr>
<td>1996</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>2.5%</td>
<td></td>
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<tr>
<td>2001</td>
<td>1.74%</td>
<td></td>
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<tr>
<td>2004</td>
<td>1.45%</td>
<td></td>
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<tr>
<td>2005</td>
<td>1.29%</td>
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<tr>
<td>2008</td>
<td>1.65%</td>
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<tr>
<td>2009</td>
<td>1.23%</td>
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<tr>
<td>2012 (e-voting)</td>
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<td>2013 (e-voting)</td>
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In general, the new e-voting system received the positive response from Mongolian public. This is because the registration of voters was conducted without disputes. On the other hand, nomadic cultural factors influence the quick adoption of new technology. However, the some political parties and candidates who did not get parliamentary seats blamed the e-voting machine and insisted the votes to be hand counted for verification purposes (Dierkes & Miliate, 2012). The Parliamentary elections and Local elections laws of 2012 did not have specific rules and regulations on hand counting. The political parties and civil society urged to conduct hand counting.

Therefore, the law on Presidential election, Mongolia was amended inclusive of random selection of local polls for hand counting. The decision to conduct control counting by hand was elaborated in the Presidential election to be held June 26 of 2013 year. There were randomly chosen 2 local polls from each section. The results of control counting by hand in selected electoral districts were identical to than that of vote counting machines. OSCE (2013) recommended that in order to ensure transparency and maintain trust in the use of new voting technologies, consideration could be given to establishing procedural guarantees for random selection of Presidential Election subject to manual re-counts and to specifying in law the course of action in the event that the results of the automated and manual counts differ.

One of the major highlights of 2012 and 2013 elections is the fact that Mongolian citizens residing abroad could exercise his/her election rights. However, out of 70,000 eligible voters only 2,779 citizens have participated in Parliamentary elections. The Law of Presidential Election also provided for out-of-country voting. Of a total of 6,494 voters who filed a request to vote abroad, 6,233 were registered by the legal deadline. A total of 4,242 voters voted between 14 and 16 June, 2013 at 39 polling stations established at Diplomatic missions, Mongolia (OSCE, 2013) . One of
reasons of low attendance of out-of-country voting is that some citizens were not involved in citizen registration process to apply for new smart NID card.

5. Conclusion

To conclude, Mongolian public and political parties consider the EAS as a trustworthy. It helped to minimize the human effect in vote counting and made a substantial improvement in fair elections. However, there are several challenges:

First, the sustainability of the electoral legislation shall be encouraged. There were instances of changing election system by taking advantage of Mongolian parliamentarian majority just 6 months ahead of elections. It has number of adverse effects such as limited time to adopt into new system, lack of preparedness and comprehension among voters and political instability. Political parties shall endeavor to make change that will come into effect for the next election cycle. The sustainability of electoral legislation is critical to build a trust in representative democracy.

Second, the privacy and security of personal information shall be enhanced. It remains to be one of the major challenges. Even though the law on digital signature was passed by Parliament in 2011, it has negligible application except taxing. For the next elections, digital signature shall be effectively used in e-voting. In order to protect privacy of voters personal information, special hardware, software with encryption techniques shall be effectively introduced.

Third, voters education shall be promoted. It is not mere instruction how to operate machines and fill forms. To combat shrinking voter turnout, GEC shall cooperate with media and educational organizations to make understand the public of advantages of voting.

Forth, training for election staff shall be conducted effectively. In some cases, IT specialists were not given instructions and electoral staff had limited preparatory time for equipment handling for 2012 parliamentary elections. For the coming elections, other effective and efficient types of training such as blended learning can be used to train electoral staff.

Fifth, voter registration system shall be improved. The new smart NID card can prevents address discrepancies of voters, promote e-government services. However, random cross check for citizen personal information and voters list shall be encouraged.

References


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Panels

Not Peer Reviewed
Open Data Asia
Moving Beyond First Principles

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Keywords: Open data, E-government, Transparency, Social Innovation, Asia

Open data is increasingly advocated as an important public policy device to meet demands for enhancing government transparency and better enabling collaboration and civic participation in matters of public concern. Concurrently, while there is growing momentum behind the open data movement, as yet, the various drivers, barriers and commitments shaping open data provision and utilization have received comparatively little critical attention. In particular, competing governmental and commercial imperatives for the generation and release of open data, along with variable uptake and public understanding of open data provision, challenge the ideal that it is always necessarily viewed as a positive public good for all. Such variability accordingly raises doubts that open data will inevitably lead to significant social innovation, promote accountability, enhance legitimacy and build social cohesion and trust.

At the same time, pragmatic approaches to the use and generation of open data, even within less than ideal democratic circumstances, also indicate its immense public benefit and potential. For example, the use of open data has offered new and unforeseen solutions to existing problems and helped to address deficits in public service provision that might otherwise have been forestalled following conventional governmental mechanisms, procedures and resourcing. However, it is not always clear how and why open data achieves success. Given the current gaps in academic, policy and stakeholder understandings of these issues, it is therefore paramount to move beyond first principles to examine the concept and practice of open data more carefully.

This Panel Discussion will underscore how different concepts and expectations of ‘good’ open data, and commitments to its provision and use, often vary with respect to different institutional, political and cultural contexts in Asia that thereby impact on its purpose, character and quality in different ways. Such considerations should help illuminate how different types or varieties of open data utilization can address different governance issues and deficits within different contexts, while recognizing open data initiatives are not problem free.

Addressing these issues, the Panel Discussion brings together speakers, including open data researchers, practitioners and advocates working in Hong Kong, China, Taiwan, and Indonesia, to consider the ‘state of the art’ of open data in Asia with presentations and debate adding much needed first-hand practical insights. Particularly, the Panel Discussion speakers will draw from a
range of international examples and perspectives on the generation and release of open data from across Asia, looking back at what lessons have been learned in their personal experience so far, and offer further suggestions for navigating the road ahead. The Panel Discussion will therefore help to identify for instance the public value of different open data projects in Asia, highlight what barriers still need to be overcome, and put forward views and recommendations for improving future open data practices and benchmarking its provision. This will be followed by a chaired interactive debate between panellists, including questions and discussion with audience members.

Key questions informing this Panel Discussion will include:

- What is the current state of open data in your region?
- What would you consider to be the main successes of open data and what are the main drivers of that success?
- How aware and engaged are government, industry, citizens and other stakeholders about the provision and added value of open data in your region?
- What problems are commonly encountered with opening data, and what barriers need to be overcome for its greater utilisation?
- What key changes could improve the open data landscape in your region and what is needed to support that change?

About the Authors and Panelists

Dr Jamie K. Wardman, Panel Chair
Jamie is a Research Fellow at the Journalism and Media Studies Centre, The University of Hong Kong, researching the sociocultural and technological aspects of health and environmental risk reporting and communication. His work has addressed the public and policy impacts of transparency, openness, public engagement and trust and how these issues are interpreted, mediated and acted upon in risk governance across such areas as nuclear safety contingency planning, crime, food hazards and terrorism.

Cikao, Panelist
Cikao (Chia-liang Kao) has been an active open source software developer since 2000. He co-founded the g0v.tw initiative in 2012. g0v.tw is an online community that advocates information transparency, focusing on developing tools for improving citizen participation. Following the model established by the Free Software community over the past two decades, g0v.tw transformed social media into a platform for social production, with fully open and decentralized cultural and technological framework.

Dr Lei Zheng, Panelist
Lei is an Associate Professor and Assistant Dean at the School of International Relations and Public Affairs, Fudan University. He is also the Director of the Lab for Digital and Mobile Governance at Fudan University. His research interests include cross-boundary information sharing and integration, government use of social media, open data and open government, transnational knowledge and information sharing, and E-government Readiness Assessment. He also serves as the director for international cooperation and a member of the E-government Advisory Committee of China Information Association.
Gao Feng, Panelist
Feng is an Open Knowledge ambassador for China and a co-founder of Open Data China, a network to bring different stakeholders together to advance the open data movement in China. Currently living in Shanghai, he is working with Fudan University to build a local partnership to unlock open data values.

Darcy W. Christ, Panelist
Darcy is an Information Architect, Web developer and eLearning specialist at the Journalism and Media Studies Centre, The University of Hong Kong. His research has spanned many aspects of digital technology. He is the technical lead on the OpenGov Project and the Hong Kong Transparency Report where he works on issues of open government and open data. He is also an active member of Open Data Hong Kong.
Crowdsourcing Logistics OR the Role of Open Data, Citizen Participation and Social Media in Enabling Ethical Food Systems and Reducing Food Waste

*Surplus Food Practices as Commons*

Organized and moderated by:

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Keywords: food waste, the commons, crowdsourcing, logistics, ethical food practices

The food system in Hong Kong has shown itself to be inequitable: everyday, we throw away over 3300 tonnes of food while 1.5 million people go to bed hungry. The question of what to do about surplus food, hunger and waste is an ethical issue that has direct impact on the environment, urban health and social justice. Current efforts that address this issue through tackling food waste are undertaken by different sectors of society which have established separate spheres of information, knowledge, resources, networks, and relationships, thus limiting the potential for local or global change. This micro case study is indicative of the larger framework of city planning and the management of resources.

This workshop aims to reconnect these spheres by situating surplus food as a practice of the commons. What would the food system look like if the recovery, distribution and consumption of surplus food (also understood as food waste) are no longer proprietary practices, but one of collective action? By bringing together community organizers, NGOs, technical experts and researchers, this discussion panel workshop takes food recovery as the empirical case study to explore dimensions of the practice of the commons.

Open data practices, social media and technological platforms offer a way that such efforts can be consolidated, but practical and pragmatic concerns need to be detailed and articulated in order to make it a workable, usable, open source portal. Examples of current problems and concerns include: 1) logistical organizations of food rescue operations and their data collection tools vary wildly – how could a tool be designed so that it does not create more work for NGOs and allows them to benefit directly from it? 2) Food donation practices are to be commended, but in reality most donors do not wish to be exposed, shifting the pressure onto NGOs. This “accountability” culture creates an atmosphere that is not conducive to sharing, especially without policy changes such as the implementation of a Good Samaritan Law. 3) Once the data sets have been collected,
current practices rely heavily upon volunteers to enter/scrape/parse the data in order to make it usable (since the culture of collecting data does not have sharing in mind).

Essentially, this workshop asks how to enable a commons practice within the domain of surplus food recovery and redistribution using an open data model which enables citizen participation through social media and other technological platforms. Garrett Hardin’s Tragedy of the Commons challenged the presumption that the benefit of a group is sufficient to generate collective action. How could we imagine a practice that is collective, self generative and also bottom-up?

This workshop welcomes three “types” of participants: community organizers and NGOs who are in need of better tools and methods to collect, distribute or reduce surplus food; technical experts working to improve open data practices and/or on open source software development; and funding bodies and government agencies who can support and enable the development of these tools and practices. Please join us for what promises to be a lively discussion about the role of open data, citizen participation and social media in enabling ethical food systems.

About the organizers/moderators:

Melissa Cate Christ

The founding director of transverse studio, Melissa Cate Christ is also a Research Assistant Professor in Design at the School of Design at the Hong Kong Polytechnic University (PolyU) and a registered landscape architect (Ontario, Canada). Melissa’s design research and practice explores mechanisms of critical intervention at the juncture of landscape, culture, urbanism, infrastructure and social and environmental justice. Prior to teaching at PolyU, Melissa was an Assistant Professor of Landscape Architecture at the University of Hong Kong, and a designer and project manager at Gustafson Guthrie Nichol Ltd, where she was the project manager for CityCenter DC, a 10 acre mixed use development in downtown Washington DC which includes a public plaza and alley over structure, a public park, and extensive and intensive green roofs on four residential buildings. Melissa has a Master of Landscape Architecture from the University of Toronto and a Bachelor of Liberal Arts from St. John’s College. A selection of her recent work can be found at transversestudio.com.

Daisy Tam

Daisy Tam is a Research Assistant Professor in the Department of Humanities and Creative Writing at the Hong Kong Baptist University. She received her Ph.D in Cultural Studies from Goldsmiths, University of London and MA in Comparative Literature from University College London (UCL). She is an ethnographer who is interested in environments which enable ethical practices and she has done research in food markets, migrant communities at the intersection of everyday life. Her latest publications include “Towards a Parasitic Ethics” in Theory, Culture and Society Sage (forthcoming); 不速之客?香港的菲律賓人口 in Lo (2014) 再見亞洲 - 全球化時代的解構與重建 Hong Kong: Chinese University Press; “The Hidden Market: The Alternative Borough Market” in Evers, C. & Seale K. (eds) Informal Urban Street Markets: International Perspectives New York: Routledge. [accepted and forthcoming].
The Conference for E-Democracy and Open Government Asia 2014 presents papers that cover the latest developments in digital governance and politics. The integration of digital information and communication technologies in citizens’ everyday lives will sustainably change the interaction with governments. Politics already embraces digital and mobile technologies and governments are about to follow. These conference proceedings reflect on the impact of a permanently connected society on forms of governance.

The CeDEM Asia 2014 brings together experts from academia and practitioners as well as representatives of business and policy makers. The conference provides a forum for transcontinental exchange and inspires the audience to consciously change and broaden their perspectives on their research.