Vikas Kumar and Jakob Svensson (eds.)

Proceedings of

28–29 February, 2012
New Delhi, India

Vikas Kumar and Jakob Svensson(eds.) Proceedings of M4D2012
28-29 February, 2012, New Delhi, India

Karlstad University Studies 2012:3
ISSN: 1403-8099
ISBN: 978-91-7063-407-9

Distribution
Karlstad University
Faculty of Economic Sciences, Communication and IT
SE-651 88 Karlstad
+46 54 700 10 00

www.kau.se

Publishing Consultancy
EXCEL INDIA PUBLISHERS
61/28, Dalpat Singh Bldg., Pratik Market, Munirka, New Delhi-110067
Tel: +91-11-2671 1755/ 2755/ 3755/ 5755 • Fax: +91-11-2671 6755
E-mail: publishing@excelpublish.com
Website: www.excelpublish.com

Typeset by
Excel Publishing Services, New Delhi-110067
E-mail: prepress@excelpublish.com

Printed by
Excel Printing Universe, New Delhi-110067
E-mail: printing@excelpublish.com

Foreword

The 1st international conference on Mobile Communication for Developmer (M4D) was held in Karlstad, Sweden, in 2008 and set the foundation for platform supporting research practice and development in the emergin field of M4D. From the beginning, the conference encouraged academi discourse as well as disseminating practitioners' experiences. The conferenc managed to gather participants from all over the world. The 2nd conferenc held in Kampala, Uganda in 2010, continued with the successful formul of the academic/practitioner two-tier structure and also transformed M4I into a regular event in the academic calendar. For the 3rd conference it wa our determination to bring the conference to India, a country with exitin developments in many different kinds of areas such as economy, democrac and not the least in ICTs. Here we would like to express our deep gratitud to the host of this year's conference SERD (the Society for Education an Research Development) who were willing to make the efforts of organizin this event and hence assure the M4D trajectory set by the previous tw conferences. SERD entered the stage at a time when the conference wa facing difficulties; hence the M4D community will always be grateful fc SERDs courage and determination to make M4D2012 happen. After man meetings, numerous phone calls, long distance travels and endless e-mail conversations it is our profound pleasure to welcome you to the excitin Indian Capital, New Delhi and to introduce these conference proceeding selected from a collection of more than 125 contributions representing 3 different nations.

This years conference contributions cover a wide field of mobil technology uses, from mHealth to mAgriculture, from mCommerce an mGovernance to mLearning and m-Empowerment. The papers encompas aspects from ICT developments in sub-Saharan Africa to mobile telephon in Latin America, from oral telemedicine in Botswana to privacy issue in Bangladesh, from traffic management in India to mobile money use i Uganda. These few examples from the rich diversity of papers in this volum bear witness to the prominence and importance of mobile technology fc development. The present volume will certainly be of great use to th researchers, practitioners, academicians, policy makers, developmer agencies, industry leaders & Start-up and everyone who wants to contribut and lean from the M4D field.

On behalf of the conference committee we would like to express ou sincere thanks to all the paper, poster and demo presenters, who in thi volume share their works and ideas with all of us. We would also like t express our gratitude to all the reviewers who have dedicated time fror

Political Conflict, Microblogging and the Changing Role of the Citizens: Examples from Germany, Tunesia and China

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Abstract— *Partly driven by social media, the mediatisation of society has spawned new forms of political communication in the public sphere, accompanied by high hopes for more participation by citizens, and a more democratic political structures, along the Habermasian model of deliberative democracy (Habermas, 1996). Critical voices, however, have categorized the internet as a means for the fragmentation of society, for a digital divide, and have shed doubt on the idea of the internet as a means for deliberative discourse. With the increasing number of smart phones, this negative perspective might, however, change. One of the most recent positive developments in terms of citicens' participation is the micro blogging system Twitter. Twitter is based on a 140-character exchange and has been publicly acclaimed for supporting the "Arab spring" revolution. It is this brief format and ist within functions, which make Twitter relevant for the global exchange. „Though the 140-character format is a constraint, it need not be seen as a limitation; while participants often shorten and otherwise modify tweets to fit into 140 characters, this characteristic of Twitter can also be seen as an advantage" (boyd/Golder/Lotan 2010:10).*

This paper explores political participation through microblogging in three different countries on the basis of empirical research (Germany, Tunesia, China), and shows, how patterns of interaction and argumentation in political discourse on twitter or other microblogging systems have changed political discursive practices.

1. Communication Model

We propose a communication model for Twitter, which focuses on six main functions of microblogging for political participation:

1. News Medium: Sharing Information on the level of simultaneous reporting of events ("eye-witness medium")
2. Organisational Medium: Activating others (followers) to engage in real life activities
3. Publishing: Informing the world about political events
4. Discussing: Engaging in discussions with politicians, supporters or adversaries
5. Personal Sharing: Seeking comfort and support for private matters
6. Social Interaction: Keeping in touch with friends, family

These diverse functions are being realized by the semiotic structure of twitter as "discoursive universe". We have developed a structural discourse model, which identifies four main communication strategies of interaction and participation in twitter (Thimm et al., 2011).

Microblogging Communication Strategies:

The communicative functions of

1. Addressing (@),
2. Tagging (#),
3. Linking (http://),
4. Republishing (RT)

Constitute a multi-referential system, in which tweets and their authors get related to one another. By addressing other users directly or by just mentioning them within a tweet (@-symbol + Username) twitter users can build contacts and initiate wide spread discussions with several participants who are either involved actively or just read along. The @-function helps establishing interactional "cross-turn coherence" (Honeycutt/Herring 2009: 2) and creates new options to participate in the political online discourse (e.g. @-initiated interaction between citizens and politicians).

The #-symbol is used to mark keywords or topics in a twitter message and helps categorizing tweets semantically. Twitter users can follow conversations regarding a certain topic more easily and get a better overview of what is being discussed within the certain field of interest (content mapping). This communicative function of hashtagging stands for discourse organization and content contextualization.

Hyperlinks (each string headed by http://) help expanding the 140 sign-limit of a tweet and sequence the content. The communicative function of linking allows users to substantiate their argumentation within a discussion by inserting multi-modal content, such as photos, videos, or other websites. They can link to online articles or blogpostings in order to provide some background information or context for their argumentation or give some "proof" of a claim by uploading a photo or video. Some of the visually stimulating hyperlinks like inserted photos are also used as narrative elements within a deliberative discourse in twitter.

The fourth main communicative strategy is retweeting (RT). A user can resend another user's tweet by either clicking the retweet-button (automatic retweet) or by putting "RT"+@+username of the original sender at the beginning of the reposted tweet. The retweet function serves as a quick opportunity to share and distribute messages with a lot of people at the same time. Once retweeted, a tweet gets retweeted almost instantly on the 2nd, 3rd, and 4th hops away from the source, signifying fast diffusion of information after the 1st retweet. The more important a person on twitter is considered, the more often her messages get retweeted and referred to. This often also relates to a large number of followees. Huge interest is especially shown in tweets that suggest closeness to politicians or other decision makers. This „closeness-potential" is becoming a strategic factor of personalizing election campaigns on twitter. The following table offers an overview over operational and functional levels:

Table 1: Operator Model Twitter

Operational Level		Functional Level
@ addressing,mentioning	→	addressing
	→	interaction
	→	coherence
	→	contacting
# hashtagging	→	specification of topic
	→	discourse organisation
	→	contextualisation
http:// (Hyperlinking)	→	distribution of information
	→	argumentation
RT (Redistribution)	→	diffusion
	→	referencing
	→	citation

The microblogging system is a complex, highly condensed platform for information diffusion, interpersonal exchange, argumentation and mobilisation (Kwak et al., 2010). These four functional signifiers offer new opportunities for citizens to participate in political discourse via twitter. Especially the diffusion function of micro blogging comes into focus when looking at its political impact. As Twitter's structure disperses conversation throughout a network of interconnected actors rather than constraining conversation within bounded spaces or groups, many people may talk about a particular topic at once (boyd/Golder/Lotan 2010: 1). The stream of messages provided by Twitter allows individuals to be peripherally aware without directly participating.

To analyse the communicative effects, functions and impacts of Twitter for political discourse, three studies were carried out for comparative analysis. A quantitative study on political participation during state elections in Germany, a qualitative study on Twitter topics in Tunesia and a qualitative study about Sina Weibo in China.

5. Comparative Studies

To follow up the model and to include a global perspective, three countries ere selected for analysis: Germany, Tunesia and China.

5.1 Twitter participation in German State Elections

The basis of analysis are tweets of local politicians, citizens, and news media portals, which were collected during state elections in Germany in 2010/2011. State elections form an important basis for governmental ruling, as a multi-level political system supports a situation of checks and balances between the local level, the state level and the national level. Therefore in state elections candidates are trying to get in touch with the citizens, in their constituency as well as statewide. A selected sample of the interactions on twitter was collected during four state elections during the years 2010 and 2011. These tweets include: (1) tweets by selected candidates of each party, (2) by print media twitter portals, and (3) by regular citizens posting about the election. Taking all studies into account, the following types of tweets were obtained:

Tab. 2: Twitter Participation German State Elections by Selected Social Groups

	North Thine Westphalla	Baden-Wilrttemberg	Rhineland-Palatinate	Saxony-Anhalt
	Election Day: 9.5.2010 Enquiry Period: Explorative	Election Day: Enquiry Period: 6.3-3.4.2011	Election Day: 27.3.2011 Enquiry Period: 6.3.-3.4.2010	Electioin Day: 20.3.2010 Enquire Period 27.2.-27.3.2010
Public Sphere	8.769	21.288	21.055	15.089
Politicians	3.080	981	1.610	1.833
Parties	1.316	1.829	1.682	1.109
Media	5.496	1.997	2.749	1.434
Total	18.661	26.095	27.096	19.465

The overall methodological process applied for the data analysis can be characterized as triangulation, combining qualitative measures (interpersonal interaction (@replies and @retweets), semantic analysis (#hashtags) and speech acts (e.g. meta communication) with quantitative measures (content analysis, frequency profiles, topic profiles).

The following methodological steps were taken:

1. Quantitative Analysis: Tweet-profiles according to the operator-model (types of activity, interactive styles)
2. Qualitative analysis, content analysis: speech act patterns and argumentation patterns as well as interaction structures (e.g. types of reference, topic management).

The multi method approach allows for a semantic, syntactic, and pragmatic analysis of the tweets to identify the social exchange between the participants.

Firstly, the hashtag based topic analysis shows the main topics discussed on twitter during the elections.

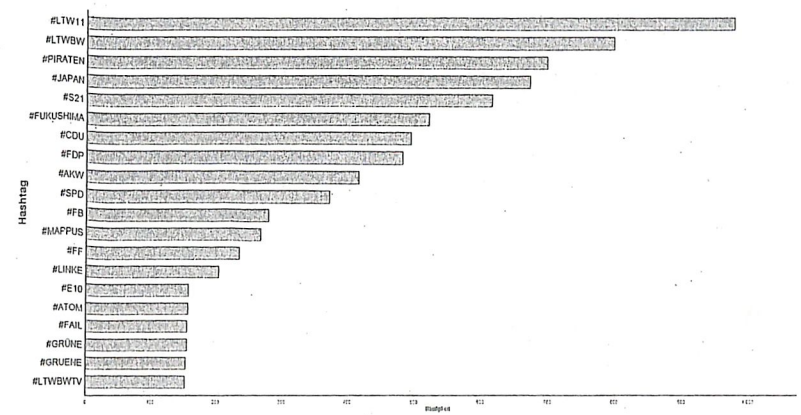

Fig. 1: Topics Discussed during the Elections in Baden-Württemberg (2011)

Whereas the high frequency of hashtags like *LTW11* or *LTWBW*, which both refer to the German abbreviation for the election in question, is not surprising, the high amounts of references to "Fukushima" and "Atom" give a clear indication to political issues at the time of the election. Even more interesting is the high frequency of the hashtag *S21*, which refers to billion dollar local traffic project, which was highly contested by local citizens' groups. This group used Twitter for organizing local protests and demonstrations, watch police activities and recruit new supporters (see examples below).

In a second step of analysis, the individual twitter interactions of the politicians were analysed for personal style and political discourse with the public. Applying the operator model we can analyse types and styles of discourse by the individual politician:

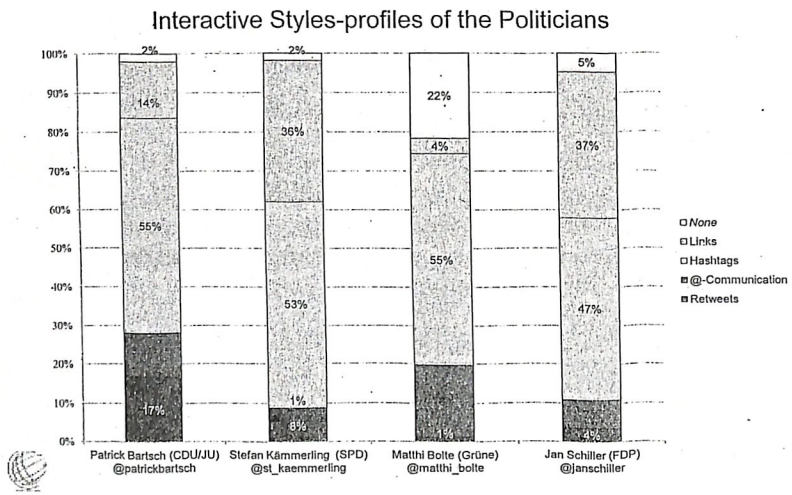

Fig. 2: Interactive Styles of Selected Politicians

The results show an unusual mix of private and political topics on the part of the politicians, a mix, which is only partly accepted by the wider public. Profile analysis revealed different strategies on the level of interaction and responsiveness - some politicians mainly went ahead with their personal agenda ("presentational type"), while others engaged directly and intently and used twitter as a dialogical tool ("interactive type"). The results show that politicians don't interact a lot with their voters – they mainly use hashtags and links to refer to other or related topics. Only a minority refers directly to citizens and their comments or questions.

Citizens, however, use twitter quiet differently, especially during political conflict. The above mentioned highly contested local traffic project called "S21" (Stuttgart 21), generated thousands of tweets. When looking at the communication patterns used by the citizens in this context , some clear patterns evolved. The main strategies were being "documenting/

informing" (by videos and fotos") and organizing. The Tweet below gives an example for a series of images ("tweetpics"), which document police activities at the construction site.

Apart from this "watchdog" function, which Twitter enables by its added functions, tweets are often used to call supports to join the demonstrators. A second tweet illustrates this function, this tweet calls for supports to join the gathering:

The results shows that Twitter is especially effective in political conflicts, as a means to share local informations and organize groups. Other than that it should be noted that German politicians have started to use Twitter for personal marketing purposes. Whether Twitter is a tool for deliberation online will be tested in upcoming studies.

5.2 Study 2: Twitter in Tunesia

The hypothesis of Twitter as a means of participation in conflict situations was followed up by a study on Twitter usage during the Arab Revolution, namely in Tunesia. The amount of tweets was impressively high: the total number of tweets with the hashtag "Tunesia" was 196 million, tweets with the hashtag #sidibouzid, the province were the unrests started, accounted for over 103 million.

The types of tweets differed from the German ones in some respects, most noteworthy was the global reach of tweets, see examples below:

@monaeltahawyMona Eltahawy Every #Arab leader is watching #Tunisia in fear. Every Arab citizen is watching Tunisia in hope and solidarity. #Sidibouzid. January 13, 2011 11:39 am via web

@alfarhan

Fouad Alfarhan الجزيرة تقول أن بن علي متجه لدولة خليجية! ريتويت إذا كنت سعودي وترفض تقذير وطننا بإستضافة فرعون تونس الفار #sidibouzid #tunisia #BenAli

January 14, 2011 1:40 pm via Twitter for iPad

Tweets with the hashtag "Tunesia" were collected from January to March 2011. Using Backtype, a service tool for twitter analyses, it could be shown, that the hashtag "Tunesia" reached its peak with 28 Tweets per second at the 14th of January 2011, at 9:27 local time in Tunesia, only a short time after first reports about Ben Ali trying to leave the country 9:21.

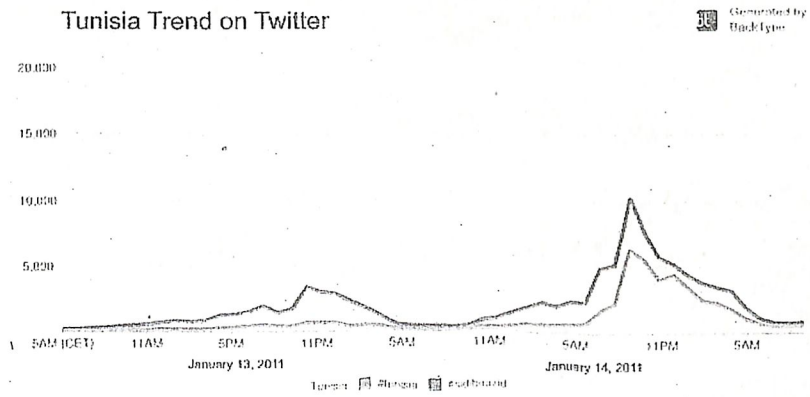

Fig. 3: Tweet Distribtion Tunesia

Overall the functions of diffusion and organizing, which were found in the German data, could be confirmed for the Tunesian data.

5.3 Study 3: Sina Weiba in China

Sina Weibo is a Chinese microblogging site, which has started playing an important role in watching political conflict in China (Xia 2010). Technically being a hybrid of Twitter and Facebook, it is one of the most popular sites in China, in use by 90% of the market. With 9,588,870 fans, Yao Chen, a young actress, is the most popular 'Weiborer' in China and has third most followers next to Lady Gaga and Justin Bieber. Sina Weibo was launched by SINA Corporation in August 2009, and now has more than 140 million users (at the same time Twitter has 175 million users worldwide). While Weibo is essentially the same concept as Twitter, there are a few differences:

1. Blog-like comments.
2. Focus on verified accounts
3. The backing of a Chinese giant.
4. Embedded picture & video attachments.
5. Stringent self-censorship

Although the Chinese government employs strict censorship on internet media, it could not control Weibo totally. Especially the documentations of self immolation due to property evictions, child abductions and corruption are increasingly being reported through Weibo.

One of the most recent cases, which used Weibo for the publication of a political conflict, were the Shanghai train accidents. Thousands of users

posted images on Weibo, sharing their stories and calling out for better safety regulation. Many Chinese were outraged and voiced harsh criticism, like Li Fashi in the following post on Weibo:

Fig. 3: Critical Posts on Sina Weibo

Overall the "eyewitness function" of Weibo is even more prominent in Chinas as in other countries. It is this very function which leads to continuing efforts to suppress free speech on Sina Weibo. The company announced in the fall of 2011 that it is developing a credibility rating system to curb users who spread „false online information" that could pose „potential threats to social stability". But with 200 million users and 75 million microblog posts a day, the service's reviewers can only delete so many at time, allowing embarrassing posts—such as those questioning the high-speed rail crash's official death toll, wishing to overthrow the communist regime, or ridiculing the regime's latest propaganda film—to roam around the service and attract much attention and support among fellow netizens.

6. Summary and Outlook

More and more people worldwide use mobile phone applications to share informations and social meaning. It is the mobile phone, which enables citizens to watch their governments more closely by reporting news to the global public. Many are now using Twitter or its equivalents, employing the interactive functions to voice their interests and concerns Overall, Twitter can be conceptualized as a "social news diffusion" medium, which not only has a control and information exchange function, but enables citizens to keep track of the political events, share and document them and thereby influence politics.

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