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A Mobile App for Citizen Participation

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ABSTRACT

Mobile apps for urban participation are a rather new development. The literature provides certain potentials of mobile apps in this context, as well of mobile participation (m-participation) in general. While developing a mobile app for the specific purpose of geo-referenced, instant polling in urban development contexts, the question rose: is m-participation different from e-participation or face-to-face participation? As there is not much empirical data available yet on m-participation, initial research focused on who are the users and how do they use mobile apps.

As the urban development context emphasises the interaction between (public) institutions and civil society, it was of additional interest to learn not who are the civil society users – but also who are the people in public institutions that would use a mobile app?

From an urban planning and participation research perspective, the paper addresses potentials and challenges of introducing smart phones and tablets. The preliminary findings from an ongoing research project that are presented in this article also raise the question to what extent findings from research on face-to-face participation are related to e-participation and mobile participation.

1. Introduction

Mobile apps for participation in urban development are a recent, but growing segment in the landscape of mobile participation.

The term m-participation is used to describe participation via mobile devices such as smartphones and tablets [1], quite similar to e-participation which is defined as “the use of ICT to support … democratic decision-making processes” [2].

General potentials of m-participation listed in the academic literature include

- the facilitation of instant communication, interaction and support between groups and individuals and thus being more productive and responsive [3 [4].
- the provision of better quantitative and qualitative data on individual lifestyles and choices [5] – and
- the strengthening of the role of citizens (“citizen planners” [6].

In the context of urban development, where in many cases participation is considered as participation in political decision-making [8], focus of academic attention is on the interaction of civil society and administrators, politicians (figure 1). Consequently, focus of the research presented here is on this aspect as the most innovative assets of m-participation – compared to face-to-face and e-participation can be seen in it’s potential to .„amplify participation in a spatial and temporal dimension and … widen the range of possible uses for urban planning and design“ [6].

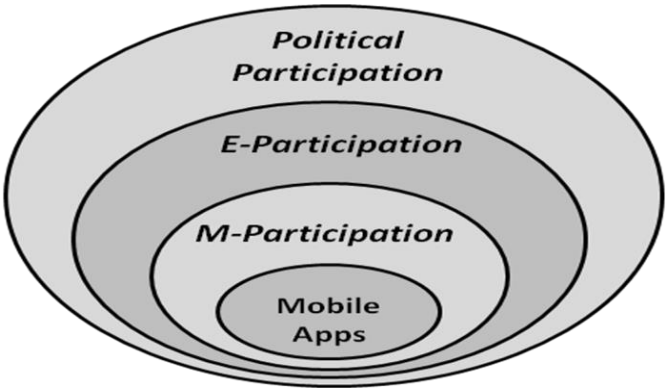

Figure 1: Framing m-participation

Most existing mobile apps that relate to participation in urban development simply provide information [3], many of them allow for social interaction, mapping or education; others combine different features such as the quite popular and successful issue management apps, or offer education on various urban development topics [3; [4]. Polling apps, on the contrary exist for almost anything, except for the field of urban development [7].

2. Research Question and Methodology

Regarding academic reception, it has to be stated that “mobile participation has so far not reached wide attention as a concept” and that “mobile features are not so extensively exploited in e-participation contexts” [1]. In a first step, it was most interesting for the team to understand during the test stage who is using this specific polling app, why and how. These questions allude to usability criteria mentioned in the literature such as: Which Methods and Technologies are being used? How do they relate to the target groups? How and with what to engage citizens, with which objective(s)? (see table 1). Insight was gained via short interviews with 10 randomly chosen municipal administrators as well as with 11 members of civil society who took part in tests in 2013 and 2014. A total of twelve tests has been carried out so far of which six are relevant for this contribution.

Table 1: Criteria for describing and analyzing face-to-face participation and e-participation [2]; [9], [10].

Criteria	Description
Level of participation	What level of detail, which degree of participation and decision-making (how much influence for citizens)?
Stage in decision-making	When to engage (early enough, at the right time), for what period of time?
Context sensitivity	Political, legal, cultural, economic, technological factors at the respective level
Accessibility	Who should be engaged, and by whom, how many, from where?
Skills & Resources needed	Who needs which (media interaction) skills/ resources in order to participate? How may s/he get them? Which options are there?
Usability	Which Methods and Technologies are being used? How do they relate to the target groups? How and with what to engage citizens, with which objective(s)?
Transparency/ Privacy/ Control	Which information is given, what are limits and restrictions, what personal information will be needed/collected, will there be an evaluation, how to find out about outcomes/ results, costs?

In a second step of the research process, a discussion started on how these findings are related to research results on face-to-face and e-participation. First observations on that behalf will be presented in the final part of this contribution.

3. Developing a mobile app for Urban Participation

FlashPoll (flashpoll.eu) is a mobile app aiming at a qualitative better integration of civil society in municipal decision-making processes through location based, instantaneous polling and opinion-giving. The original impulse to start the project was a hope to overcome shortcomings of face-to-face participation and to develop a tool that

- facilitates instant, location-based interaction between individual members of civil society and urban planning administrators and politicians
- makes participatory processes in urban development more productive and responsive while avoiding high coordination and transaction costs,
- provides a neutral, inclusive platform for dialogue, deliberation and decision-making.

Basically, FlashPoll works as follows: After downloading, users can take part in instantaneous, geo-located polls. Thus, polling is possible within a specified physical space such as a building, a neighbourhood, a city or a region. Results are visible via the app immediately after polling and after a poll is finished. In general, polls do consist of an introduction text, several questions and a final remark. Polls can have different lengths, allow for single, multiple, scaling and open text answers. At this stage, several small-scale tests have been conducted in Germany, France and Sweden where polls were set up by the research team for the institutions, but the final product will enable (public) institutions to run their projects independently.

Who is using such a mobile app?

One aspect of the research was to understand who are the users and what motivates them to use this specific app. Implementing widely accepted participation structures in practice, the main targeted user groups are (1) public institutions that would provide polls and receive public opinion and (2) members of civil society who would give their opinion and interact.

Both public institutions and members of civil society may consider participation as a fundamental activity for the political success of municipal measures [11] – and demand for effectivity of administrative action in consequence [12]. Yet - a successful mobile app has to serve differing expectations: institutions need apps that are easily to integrate in political and administrative processes [9] [13]while civil society members might rather focus on information, communication and interaction [4] [14].

According to a German study, conducted in 2011, the introduction of e-participation still struggles with very practical problems: While 75% of German municipalities see e-participation as a means to create more opportunities for participation, only every second municipality considered their offers and services successful or very successful [15]. Quite problematic for the introduction of e-participation, municipalities expressed doubts regarding the quality and

representativity of the contributions, even more so if they were not experienced with e-participation and qualified (regarding technical or communicational skills) – which in some cases led to not offering any e-participation at all [15].

Regarding the potentials of mobile apps in urban development, a randomly chosen sample of eleven municipal administrators during our tests all agreed that mobile participation has some potential, and that the specific FlashPoll app might be of good use. But a major challenge was seen, by nine out of the same eleven interviewees, in handling specific ICT infrastructure and to provide resources for dealing with quick responses and instant interactivity.

In order to get an idea of "the average" user, members of the project team took part in public events and talked to potential testers. While "technology aficionados" who enjoy new technologies and know how to use them were usually easily convinced to download the app and take part in a test, other population groups seem more difficult to reach. Contradictory to hopes formulated in the literature [4], people that participated in testing the app were mostly male, middle-aged, politically and technically interested and already actively participating in society. This goes along with the general visitors' structure of the events where we tested (Science and ICT fairs). Future tests will be conducted in neighbourhoods with a comparatively large number of young people, where more insight will be gained regarding potential users of this app.

A good poll is nothing without people answering it. The biggest challenge during the development process was to find out how to make the app's existence known to institutions and to members of civil society. Given the fact, that it is being developed for an urban development context, the number of potential users is somehow limited: they must be professionally or individually interested in either urban development in general or the topic of the respective poll – or be curious about the new app.

So far, the team tested several means of communication: Website announcements only proved in the two cases applied not very successful as people that got information about the app via a website on their computer, there were not immediately able to download and test the app. Additional announcements of a test in event brochures proved successful in all four cases as people became aware of the test and the project team while they were where the geo-located polls were available. QR codes which we added to those brochures in three of those four tests provided a direct access to the download store.

How are people using such a mobile app?

The screen size of a smart phone or tablet visually limits the length of texts, the number of answer options (unless one wants to keep scrolling), the degree of detail of pictures and maps as well as the general amount of information provided within the app. In consequence, the research team wanted to find out how polls could be presented on small screens in order to

make sense for the users. This included questions on the ideal length of a poll, the visibility of the answer options, and the added value of pictures.

While we tested all features first within our interdisciplinary, multinational team, public tests focused first on the practicability of different answer options (single, multiple choice, ranking, scale, open text). All ten civil society members interviewed didn't mind having an open text answer as an option, but while taking a look a their actual answers given, it turned out that testers skipped questions more often if there was an open text answer option than a single or multiple choice answer option.

Further research had been done on different lengths of content in order to find out about the adequate amount of information that could be exchanged via the app: Results of the tests with civil society members indicate that the descriptions of polls on the start interface should be as short and precise as possible. Consequently, the also preferred short questions, but rather precise than short answer options: Single-word answers were not very popular as they left too much in the uncertain.

Regarding the overall length of a poll - five to ten questions, depending on the number of answer options, were considered adequate. They should also provide different, carefully chosen ways of answering which means not only single and multiple choice questions, but also – where suited – scales, or pictures.

4. Discussion

While trying to understand who are the users and how they are using this specific app, it became apparent that a mobile app for participation in urban development has to serve different practical needs of public institutions and members of civil society. Major challenges on the municipal side are specific existing organizational, political and ICT structures - and limited resources and knowledge. Both aspects also apply to processes of face-to-face and e-participation [14] [16].

Another challenge is to introduce the app to a large variety of population groups. Participants of the tests with the mobile app mirrored participants' structures in face-to-face participation processes, but not those in e-participation processes [17] [18]. Given the unsystematic testing in different contexts, this aspect is interesting, but needs further exploration.

Reaching a large variety of people or population groups is heavily dependent on their access to recent smartphone or tablet models – and on their individual access to information about such a process. Most successful at this stage seems to be to relate face-to-face participation to m-participation processes. This could either be running a poll via different media, such as paper forms, computer and smart phones – or to integrate an m-participation tool into a series of thematic or place-related participatory processes. This may vary from neighbourhood to

neighbourhood, and from city to city – and should be considered when using a mobile app in an urban development context.

The number of participants that can be reached seems to be higher if a test is either coupled with a specific event or an ongoing face-to-face participation process – but this is much more resourceful than the other options in terms of time and personnel involved. On three occasions the poll results were presented instantly via a large screen to the public as part of an ongoing event These combinations of mobile and face-to-face interaction was welcomed by all people involved in the tests, but raises the question whether standalone apps are the best m-participation solution for urban development.

5. Conclusion

Developing a usable mobile app for urban participation means to combine technological knowledge with participation knowledge. While many statistics suggest a quick growth rate for smartphones as well as growing familiarity with the use of mobile devices in all age groups, it is unclear whether all these smartphone users are willing to participate in urban development.

But if users indeed prefer clicking prepared answers to writing open text, and if the screen size of a smartphone or tablet has an effect on the general structure of a poll, this might indicate that m-participation with apps allows on the one hand for (instant) interactivity, for fast, ubiquitous collection of opinions and for quick public visualisation of answers. On the other hand, it may indicate that there are limits to the qualitative understanding and voicing of the participants as motivations, reasons, lines of argumentation may not be explained via single or multiple choice answers.

While several authors state that the concept of m-participation is closely related to that of e-participation [1]; [14] – especially when it comes to the facilitation of communication, productiveness and responsiveness, the preliminary results presented may also lead to questioning if m-participation really just “e-participation with mobile devices”? [19].

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6. References

[1] Wimmer, MN. A., R. Grimm, N. Jahn, J. F. Hampe. 2013. Mobile Participation: Exploring Mobile Tools in E-participation, in: Electronic Participation. Lecture Notes in Computer Science Volume 8075. 1-13.

[2] Macintosh. A. 2004: Characterizing E-participation in Policy-Making, in: http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan038449.pdf. 2013-10-27.

[3] Evans-Cowley, Jennifer S. 2011. There's an App for That: Mobile Applications for Urban Planning (October 29, 2011). Available at SSRN: http://dx.doi.org/10.2139/ssrn.1951069.

[4] Zeile, P., G. Kebbedies, B. Streich. 2012. Städtebauliche Methodenentwicklung mit GeoWeb und Mobile Computing, in: Editors: Manfred Schrenk, Vasily V. Popovich, Peter Zeile, Pietro Elisei: Proceedings Real Corp 2012 Tagungsband, ISBN: 978-3-9503110-2-0 (CD-ROM); ISBN: 978-3-9503110-3-7 (Print).

[5] Höffken, Stefan, and Bernd Streich. Engaging the Mobile Citizens–How Mobile Devices Offer new Ways of Civil Engagement. na, 2011.

[6] Drohsel K. M., P. Fey, S. Höffken, S. Landau, P. Zeile 2010. Mobile Applications in Urban Planning, in: Jens Geelhaar, Frank Eckardt, Bernd Rudolf, Sabine Zierold, Michael Markert (Eds.) MediaCity. Interaction of Architecture, Media and Social Phenomena, Bauhaus Universität Weimar, 499-523.

[7] Bohoj, M., Borchorst, N.G., and P.-O. Zander. 2011. Public Deliberation in Municipal Planning: Supporting Action and Reflection with Mobile Technology. C&T'11 Brisbane, Australia. Accessed October 21, 2011: http://mkorn.binaervarianz.de/pub/ct2011.pdf.

[8] Geißel B. 2008. Zur Evaluation demokratischer Innovationen – die lokale Ebene.

[9] EU 2012. e-participation Best Practice Manual: in: http://e-participation.eu/wp-content/uploads/2012/10/eCitizeni_manuaal_A4_ENGLISH-1.pdf. 2013-10-18.

[10] Schröder, Carolin (2013): Evaluation von Beteiligung als Theorie-Praxis-Aufgabe, in: pnd/online 2-3 2013, www.planung-neu-denken.de.

[11] Weith, T. 2007. Stadtumbau und Evaluation, in: Weith, Thomas 2007 (ed.): Stadtumbau erfolgreich evaluieren. Waxmann Verlag. Münster. 11-25.

[12] Bussmann W. 1997. Evaluationen und intensive demokratische Beteiligung: Ergänzung oder Ersatz? Swiss Political Science Review 3(2): 1-101.

[13] Knudsen, A-M. S., Harder, H., Simonsen, A.K., T. K. Stigsen. 2011. Employing Smart Phones as a Planning Tool: The Vollsmose Case. 4th Nordic Geographers Meeting, Roskilde, Denmark.

[14] Lahti, P., J. Kangasoja, and P. Huovila. 2012. Electronic and mobile participation in city planning and management. Accessed on 14.11 (2006): 2012.

[15] Materna 2011: E-Partizipation in der Öffentlichen Verwaltung, in: http://egov.hs-harz.de/attachments/article/101/ePart-Studie2011_web.pdf. 2014-06-13.

[16] Rowe G., L. J. Frewer 2000: Public Participation Methods: A Framework for Evaluation, in: Science, Technology, & Human Values, Vol. 25 No. 1, Winter 2000 3-29, in:

http://cooptools.ca/sites/get.cooptools.ca/files/Rowe%20frewer%20public%20engagement.pdf . 2013-07-13.

[16] Granberg, Mikael, Åström, Joachim. 2010. From Citizen Participation to Interactive Decision-making?: A case study of Urban Renewal. In: Amnå E. (ed.). New forms of participation: Normative implications. Nomos Verlagsgesellschaft. Baden-Baden.

[17] Boyle R., J. D. Breul, P. Dahler-Larsen (ed.) 2011. Open to the Public: Evaluation in the Public Arena, Transaction Publishers.

[18] Oser, J., M. Hooghe, S. Marien. 2013. Is online participation distinct from offline participation? A latent class analysis of participation types and their stratification. Political Research Quarterly 66.1 (2013): 91-101.

[19] Wernecke, F. 2007: Mobile Partizipation: Schnelle Beteiligung per SMS am Beispiel der Initiative Mindestlohn. In. E-Partizipation. Beteiligungsprojekte im Internet. Stiftung Mitarbeit. 297-307.