Beyond technology

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Beyond Technology: Identifying Local Government Challenges for using Digital Platforms for Citizen Engagement

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Abstract

Previous research has highlighted that there is a lack of advanced technological solutions able to foster government-citizens collaboration. We argue that many examples of digital participatory platforms are already available and also ready to use for governments and citizens. Hence, causes for ineffective citizen engagement and collaboration with local government should not be sought in the lack of advanced technology. Thus, we focus on the issues and challenges that local governments face in fostering online and offline citizen engagement. We also provide a classification of challenges into six categories as a prerequisite to identifying actions and solutions for local governments.

Keywords

Digital participatory platforms; Local government challenges; Citizen engagement; Civic technology

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Introduction

For decades, urban planners across the world have tried to improve participation and involvement of ordinary citizens in policy-making (Evans-Cowley & Hollander, 2010; Gaventa and Barrett, 2012). In this era of almost ubiquitous Internet accessibility, increasing attention and resources are devoted to new technologies in the search for meaningful and democratically legitimate citizen engagement. This search is especially pertinent at local levels, such as cities and neighbourhoods. Previous research has claimed that there is not enough technology and that we need more interactive web and mobile apps for actual collaboration and citizen engagement in local government activities (Desouza & Bhagwatwar, 2012; Williamson & Parolin, 2013; Zavattaro & Sementelli, 2014; Ertiö, 2015). However, considering the latest advances and the innovation pace, we argue that one of the main causes for limited or ineffective citizen engagement should not be sought in the lack of advanced technology. Quite the contrary, technology has advanced considerably over the past years. This is evidenced by the rise of many ad-hoc digital platforms that enable interaction, collaboration, and engagement of citizens in various government activities and public service delivery.

Here, we consider **Digital Participatory Platforms** (DPPs) as a specific kind of collaborative social media. In fact, DPPs include all the features proper to 'conventional' social media (such as Facebook and Twitter): they are based on Web 2.0, allowing for user generated content, and sharing of such content. However, compared to conventional social media, DPPs also include different and more elaborate technological features, as will be explained in detail further on. We will provide many examples of DPPs that claim to be fit for collaboration. We will also briefly highlight their distinctive technological features and their real world applications. It follows that achieving engagement and meaningful collaboration through digital technologies requires a better understanding of what hampers local governments and citizens from being able to effectively collaborate, both online and offline.

A range of issues have been identified in the literature regarding the use of both conventional social media and DPPs in government-citizen collaboration. Many studies identify challenges, risks and other barriers that range from organizational to technology-related aspects (Evans-Cowley & Hollander, 2010; Bertot *et al*., 2012; Kavanaugh, 2012; Picazo-Vela *et al*., 2012; Mergel, 2013; Williamson & Parolin, 2013; Afzalan & Evans-Cowley, 2015; Bonson *et al*., 2015). Through an extensive literature review, this research note provides a clear categorization of challenges. The research note aims to understand the nature of these challenges and to identify what actually hinders collaboration through digital platforms. Based on the literature review, we identify and review the most common challenges that constitute the basis for a better understanding of the next steps for local governments. Only after a clear identification and categorization of challenges can we determine the requirements for local governments to advance the use of digital technologies for Government to Citizens (G2C) and Citizens to Government (C2G) collaboration purposes.

Abundance of platforms, main features and use cases

Even a simple and basic search in Google immediately shows an abundance of online platforms. Searching with the keywords [citizen engagement], [collaborative mapping] and [public participation platform] allows us to easily find dozens of online platforms that claim to engage citizens and foster collaboration with local government (without taking into consideration more common and generalist options such as Google Maps API, Open Street Map leaflets). Interesting examples are: *Accela*,

CitizenLab, *CollaborativeMap*, *Crowdbrite*, *Dialogue Apps, Free-Map, Geojson, Platformadigjitale*, *Umap, Urban Interactive Studio*, and *Zeemaps*. Previous academic research (Desouza and Bhagwatwar, 2014; Babelon *et al.* 2016; Ertiö and Bhagwatwar, 2017) has also identified interesting examples such as: *Carticipe*, *Block by Block*, *Bang the Table – Engagement HQ*, , *CityPlanner*, *Commonplace*, *coUrbanize*, *Creative Citizens Sticky World*, *Crowdgauge*. All such platforms share technological features that are the basis for citizen engagement and collaboration. A wide variety of features allows for different user behaviours such as:

- Collection and sharing of ideas, solutions, local knowledge;
- Discussion and collaboration through opinion maps, surveys, commenting, forums;
- Simulation tools such as budget allocation and 3-D design;
- Voting and ranking of ideas;
- Analytics features of comments, votes and general user activity on the platform.

Particular features of many platforms are also: geo-located inputs for collaborative mapping (e.g., comments, pins, and other geographical features); crowdfunding; exporting in different formats for further analysis (shape files, csv, kml); importing and media uploading; and sharing on conventional social networking sites.

These are all widespread features within DPPs. Their real world application is systematically linked to urban and natural environments and to those parts of the city that constitute mainly the "public" city. Thus, from the platforms' websites, we are able to identify many use cases and examples of place-based collaboration: the design of a university campus, bus stations, neighbourhood parks, zoos, city markets, new sporting villages, playground renovation, redevelopment of empty factory buildings and so on. Cases also concern more policy-oriented and long term planning efforts such as: municipal and metropolitan master plans (e.g. Lille, Grenoble, and Avignon in France and Las Vegas in the USA); location of new affordable homes; development of neighbourhood plans in England, in a national framework of local spatial planning.

Therefore, taking into account the availability of DPPs, it is of paramount importance to understand the issues and challenges that local governments face in the adoption of new technology for the purposes and cases highlighted above.

Challenges to government use of digital participatory platforms

Despite the abundance of functionalities in DPPs, their use and actual take-up is not as widespread as it could seem. Local governments seem reluctant to engage and use such platforms in their public policy and service delivery efforts. This requires us to clearly identify challenges that local governments face, for two main reasons: i)to understand what hinders their use of DPPs; ii) to be able to tackle them and make the most of the available technology.

In this context, Poba-Nzaou *et al*. (2016: 4011) define challenges as "any issue an organization may have that may prevent them from adopting social media." We can extend this definition to the challenges to adoption and use of DPPs for collaboration between government and citizens. On the basis of this definition of challenges, we have conducted a review of the literature on empirical applications of DPPs and social media use in government. This review has resulted in the identification of six categories of main challenges that (local) governments are confronted with.

We decided not to employ a systematic literature review method because of the extremely high number of articles on social media and digital platforms use. This approach would have included too many irrelevant sources. Instead, we decided to employ a snowball approach and built our body of literature through this latter method. We started with a Google Scholar search via the keywords [digital platforms challenges], [social media challenges] and [government social media] in order to identify the most relevant research articles. We included social media in the keywords since DPPs are a specific kind of social media. Many issues related to social media in general appear to be relevant for DPPs too. We have mainly reviewed studies that focus on the application of social media in government and which highlight challenges specific to their case studies (e.g. Evans-Cowley and Hollander, 2010, Landsbergen, 2010; Kavanaugh et al., 2012; Casey & Li, 2012; Picazo-Vela et al., 2012; Mergel, 2013; Williamson and Parolin, 2013; Alasem, 2015; Bonson et al., 2015; Haro-de-Rosario et al., 2016; Jukic & Merlak, 2017). The snowball approach used the reference lists of studies collected from thesesources. The subsequent literature review resulted in various challenges that concern three main aspects: contextual, technological, and organizational. We then identify six categories of challenges within these three aspects and discuss them in more detail below.

Contextual: Internet accessibility, digital illiteracy and the digital divide

Generally, one of the main challenges in the literature is related to Internet accessibility, digital illiteracy and the digital divide of the population. As many authors highlight (Norris, 2001; Bertot *et al*., 2012; Pizaco-Vela *et al*., 2012; Burkhardt *et al*., 2014) if we broaden our range of contexts, people and age groups, these factors of (in)accessibility and illiteracy can be a serious hindrance for the digital engagement of citizens in government activities.

Contextual: institutional framework

Challenges also relate to the institutional framework. Examples are regulations on: accessibility of social media by people with disabilities; privacy; data protection and security; availability of information in different languages (Bertot, *et al*. 2012). All of these regulations require further work and expertise from the local government to provide social media and participatory platforms that are accessible by all groups (e.g., applications for the visually impaired, language minorities) and guarantee privacy and security.

Technological: technological advancements and data management

Technological advancement challenges relate to the complexity and high speed of (global) technological change and the ability of government to keep up with the pace of innovation and new technologies. Data challenges in participatory platforms relate to the completeness and accuracy of data and information coming from the public. This information tests local governments' abilities as consumer of externally created data. The government agency also needs to guarantee the objectivity of its own data, quality, integrity and openness (e.g. accessible formats, complete, reliable and updated data) (Bertot *et al*., 2012; Pica-Vela *et al*., 2012).

Organizational: process-related challenges

This set of challenges refers to the preparation by the local government of a clear strategy and policy guidelines on how to engage citizens through DPPs. Such guidelines should include demographics,

target population and stakeholders, feedback, monitoring, and measuring activities on platforms (Heeks, 2006; Landsbergen, 2010; Bryer & Zavattaro, 2011). As Mergel (2013) stresses, there is little reflection to strategically plan out engagement activities. This category of challenges also includes necessary changes in the 'back offices' of governments to adequately react on citizens' inputs on the selected platforms, and to establish meaningful interactions among citizens (Baldwin-Philippi & Gordon, 2013; Lam *et al*., 2015).

Organizational: intra-organizational culture
As Farhoomand *et al*. (2000) and Voorberg *et al*. (2015) emphasize, overcoming an outdated organizational culture which underestimates the value of citizens' input constitutes a major challenge. Williamson and Parolin (2013) have emphasized that the most important factor for innovative communication is a genuine understanding (at the management level) of the benefits that could be gained through DPPs and social media in general.

Organizational: availability of human resources
Availability of expertise and trained personnel who are able to use DPPs also constitutes a challenge. Cost justification to retrain officials or hire new personnel to guarantee appropriate use of technology and collaboration with citizens is also an important challenge (Landsbergen, 2010; Bryer & Zavattaro, 2011; Bovaird & Loeffler, 2012; Kavanaugh *et al*., 2012; Lee & Kwak, 2012).

Conclusions

This research note has provided a clear categorization of challenges as a starting point for a better understanding of the factors hampering local government-citizens collaboration based on digital participatory platforms (DPPs). Advances in technology have brought about ad-hoc digital platforms and several technological features for collaboration purposes between local government and citizens. Identifying the main causes for limited or ineffective citizen engagement with local government activities requires us to look beyond the technology itself. Our categorization highlights that the six main challenges have to do with:

- Contextual factors (*internet accessibility, digital illiteracy and the digital divide; Institutional framework)*;
- Technological factors (*technological advancements and data management)*; and
- organizational factors (*process-related challenges; intra-organizational culture; availability of human resources)*.

For governments and citizens to be able to advance use of DPPs for collaboration purposes, future research should answer several questions. First of all, is there a need to, and how can we, distinguish these six challenges from other factors hampering collaboration between government and citizens (e.g. risks)? Secondly, how can governments overcome such challenges? Finally, are there any specific government requirements that can be identified? How should these requirements be fed into the practice of DPP use? Hence, we conclude that advancing limited or ineffective citizen engagement through DPPs is not a matter of further advancing technology but of addressing the aforementioned challenges.

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