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Redefining Citizenship and Civic Engagement: political values embodied in FixMyStreet.com

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Abstract

This article argues that citizen-driven local public service improvement systems raise not merely technical issues, like efficiency or ease of use, but also political ones. It focuses on an example from the UK, *FixMyStreet.com*, which enables citizens to report physical problems in their neighborhood and to track their resolution by local councils. Its analysis suggests that the website produces a form of political culture (through its design features that are guided by certain values) that promotes an immediate, clickable, fleeting, problem-focused and individualized form of civic engagement. Since it is built on an open source code, many other websites in different countries follow this certain civic engagement model without necessarily addressing the politics of the design. In response, this study argues that civic values that are concerned with the interests of a local community rather than individual or institutional ones should guide such technologies so that those technical systems could lead to community action, thereby empowering citizens. To illustrate how civic values can be incorporated into design, the related literature and methodology on value sensitive design guides the analysis while relying on the measures of deliberative participation for betterment of design features as well as the designing process.

Keywords

values in design, citizenship, civic engagement, participation, local government

When assigned to public service use, technology not only offers efficiency and effectiveness, but also provides a vast opportunity for disseminating public information that can enable citizens to partner with, or sometimes to replace, governments. Thanks to free and open source software and data.gov initiatives, citizens can have access to more public information and face lower barriers to report their issues/stories as well as engaging in conversation with authorities. One prominent use of such opportunities is Ushahidi from Kenya which is a collaborative project created by volunteers from different African countries. Originally built to gather crisis information from the public and channel it to the mainstream media, now Ushahidi covers various human rights cases, political issues as well as crisis reporting by crowd-sourcing information through multiple channels like SMS, email, *Twitter* or the web[1]. Another use of similar technology has emerged at a rather (hyper) local level to report non-emergency issues in neighborhoods, like a broken street light or potholes. These platforms, either run by social entrepreneurs, non-profits, private companies or even local governments, offer citizens to spot and report problems in their neighborhood and, in some cases, to contribute to the solution through voluntary action or collaborating with governments. They have become quite popular around the world and seem to be growing since one example from the United States (US), *SeeClickFix.com*, completed $1.5 million of funding led by a couple of tech-investors while another one from the United Kingdom (UK), *FixMyStreet.com*, received government funding for a couple of times as well as winning prestigious *New Statesman/New Media* award in 2007 (Duval, 2010). U.S. Chief Information Officer Vivek Kundra (2011) calls these citizen-driven systems for local public service improvement "we-government", which replaces "e-government", to emphasize the partnership between governments and citizens[2]. While the primary focus is on how these systems provide efficiency, effectiveness or ease-of-use in public services, how they respond to and/or promote certain political and social values through user experience deserves equal attention. Whether they displace or complement traditional local governance models, empirical connections made between such technologies and civic experience have the potential to produce a particular online/offline participatory culture. This potential political influence should be addressed while these technologies are designed.

This study takes a closer look into citizen-driven local governance systems within the context of one of the earliest examples, *FixMyStreet.com* (FMS). Launched in 2007 by a non-

[1] http://www.ushahidi.com/ [07.01.2011]

[2] http://techpresident.com/short-post/pdf11-vivek-kundra-reiterates-open-government-cost-savings-importance-cloud [07.01.2011]

profit social entrepreneur, mySociety.org (mySociety), FMS allows citizens to publicly report (non-emergency) issues in their neighborhood. These reports are delivered to the related local councils and citizens can track their cases through the website. All reports and replies are in public so that citizens can easily follow what is going on in their local government's area or in other neighborhoods. FMS does not play an active role in resolving problems other than mediating between citizens and governments, however through the design of the website it (re)produces a certain political culture. This study aims to address the politics of FMS through the values expressed by and embodied in its design, assuming that technologies not only interact with social groups and influence social behavior, but also comprise substantive political values. Through its affordances and limits for users, the FMS design represents a broader struggle between certain political values of relevant stakeholders in a we-government project. As a non-profit website that aims to serve local communities, it grants an opportunity for researchers to discuss what civic values mean and how they can be incorporated into technology to better local public services. This study aims to contribute to that discussion from a deliberative democracy perspective with a values at play approach in mind.

Values in Technology

Taking a sociotechnical stance towards analyzing technology requires understanding it as "the combination of artifacts together with social practices, social relationships with arrangements, social institutions, and systems of knowledge" (Johnson, 2010, p. 39). This paper derives its theoretical framework from a certain standpoint which argues that artifacts and technical systems do actually have systematic political values that come into play through enabling or constraining what can be done with or through them and their design can actually have an impact on social behavior (Winner, 1986; Latour, 1992; Introna & Nissenbaum, 2000; Flanagan, Howe, & Nissenbaum, 2008). Recognizing that artifacts and technical systems embody values -not only functional but also political- calls for attention to the deliberate attempts of incorporating values in design to create better systems for society as Flanagan, Howe, & Nissenbaum (2008) argue, "… those who design systems have a responsibility to take social, moral, and political values as well as technical ones into consideration as they work" (p.322). However, as they point out, even when designers attempt to integrate values into systems and artifacts, they are challenged by confronting a diverse array of knowledge that is not normally part of the technical design process (Flanagan, Howe & Nissenbaum, 2008). Their challenge is exacerbated by the lack of information on how to incorporate values in design

given that there are different stakeholders with particular interests as well as technical limits/possibilities that might sometimes be at odds with each other. Thus, a set of literature emerges to explain in what ways one can approach the design process with value-centered concerns in mind.

'Value sensitive design' consists of conceptual, empirical, and technical investigations in an attempt to shape technological systems with certain political or moral values in mind. It starts with exploring certain philosophical concepts and issues relevant to a given project (Friedman, Kahn, & Borning, 2006). Which values should be upheld to promote a certain social behavior or which values might come into conflict with another at the time of implementation are examples of questions that can be discussed at the conceptual phase. Empirical and technical investigations focus on the relationship between users and the artifacts as well as the performance of design in relation to the objectives set in the beginning. As much as technical artifacts can shape social behavior; social relations, practices and groups influence the design of artifacts (Bijker, 1992). Hence, value sensitive design, most of the time, allies with a *participatory design* perspective that reflects the contribution of the values and skills of relevant groups/individuals involved in the process (Sengers et al, 2005; Flanagan, Howe & Nissenbaum, 2008). These relevant groups are not only the direct stakeholders who have a certain interest in design. There are also indirect stakeholders who can be influenced by the design effects and it is important to make sure their interests or concerns are channeled to the design process. In some cases, that may not happen. Hence, 'reflective design' comes into play with an alternative perspective that assumes a value-centered approach is not a one-time attempt to incorporate values, thereby requiring constantly monitoring the design and how values are translated into features. It, thus, couples the design process with an ongoing research/understanding of values so that not only better systems that would reflect the needs of relevant groups can be built, through continuous feedback and verification, but also designers become more aware of how critical their role is in the process (Sengers et al, 2005).

In an attempt to provide a methodology for designers to adopt a value-centered perspective, Flanagan, Howe and Nissenbaum (2008) suggest values at play approach that incorporates participatory, value sensitive, and (critical) reflective design concepts for building better systems. This approach demonstrates the complexity of defining and negotiating various values, the challenge of translating them into concrete design elements, and verifying that they satisfy what agreed values aim to achieve. At the center of their method lies the idea that "design is a critical juncture for envisioning the values which a system in question embodies"

(Flanagan, Howe & Nissenbaum, 2008, p. 331). Hence, they outline an approach that involves a discovery phase in which not only stakeholders bring their values to the table, but also designers get involved with their technical expertise as well as their own values. User values, which could be discovered through other means of research, are part of this preliminary design process too. A translation phase in which agreed-upon values are articulated in concrete terms so that they can be operationalized and implemented in design follows discovery. The key part of this phase is the time when different values, or how they are translated into features, come into conflict with each other, thereby calling for resolving, dissolving or trade-off (Flanagan, Howe & Nissenbaum, 2008). In the final section of design, it is important to test implementations in order to verify whether the objectives of a project are met. The primary argument of values at play approach is not only that technical artifacts embody values, but also "values can be embodied in technical artifacts by deliberate design" (Flanagan, Howe & Nissenbaum, 2008, p. 349). This argument strengthens the position of designers in any system/artifact building process as well as assigning a bigger responsibility to them to use their power and contribute to design from a value-centric perspective.

Inspired by the values at play approach, this paper reverses the process and attempts a post-analysis by focusing on which values are expressed by the FMS designers or mySociety in general and whether they are embodied in the FMS design. The ideal way to conduct this analysis would be to find out stakeholder values, including the FMS developers', through survey or interviews before examining the design. Given the limited resources, a secondary data by Stephen F. King and Paul Brown (2008) that examines FMS through interviewing relevant stakeholders as well as the developers are used to find out which values are at play. However, researching the design process is still lacking since it is a post-analysis, thereby missing the opportunity to address process-related challenges and discussions that would give a better picture of explaining expressed vs. embodied values of the FMS. King & Brown's research (2008) reports user values as well, however at an early stage of FMS that citizens interviewed are referred as prospective users. Therefore, incorporating user feedback into this study not only in terms of satisfaction with using the website, but also in relation to their (changing) values while interacting with governments would be helpful. This crucial part of the analysis is a future goal for this ongoing study that could be completed in collaboration with the FMS team. This paper intends to analyze the values of FMS in relation to the political culture it (re)produces through increasing use by local governments and citizens. Hence it also discusses how civic-values-centered design might look like, conceptually and empirically, from a deliberative

democracy perspective, which is assumed to be a critical part of civic engagement particularly at local community level (Dryzek, 1990). That said, it should be noted that there is no normative argument in this analysis, in favor of a certain design that is conceived to promote civic engagement or citizen empowerment better than others. Same values may be promoted through different design decisions while different values may serve same objectives. Hence, what this paper tries to do is not offering a particular design template that would provide better results for civic engagement. Instead, using FMS as a starting point, it makes the point that technical artifacts or systems that attempt to address civic engagement issues should embrace, and even prioritize, a set of civic values in addition to instrumental ones like efficiency or ease-of-use, which would be deliberately integrated into design.

mySociety and FixMyStreet

mySociety is a non-profit organization based in the UK that runs a number of online democracy and citizen engagement websites, *TheyWorkforYou*, *WhatdoTheyKnow*, *WritetoThem* to name a few. Their primary objective is to build websites that give people simple, tangible benefits in the civic and community aspects of their lives (Escher, 2011). To reach this objective, they target 1) teaching the public and voluntary sectors how to use the Internet most efficiently to improve lives, 2) activating people who would otherwise not get engaged, thereby reaching a representative share of the online population. Inspired by these bigger ideas, FMS not only "gets your street fixed", but also "is local control of the things people care about, a very practical democracy" (Irving, 2008). The system allows citizens to report or view local (physical) problems, and to track their resolution by the related local council (King & Brown, 2008). Problems reported by citizens are delivered to the related local council via email. Any user can report or update a problem while the FMS contacts problem originators four weeks later to check the state of their issues (King & Brown, 2008). As they announce on their main page, more than 100,000 problems have been reported so far. It was originally funded by a grant from the Department for Constitutional Affairs' Innovations Fund, followed by funding from central government as well as donations from supporters – though to a modest extent (King & Brown, 2008).

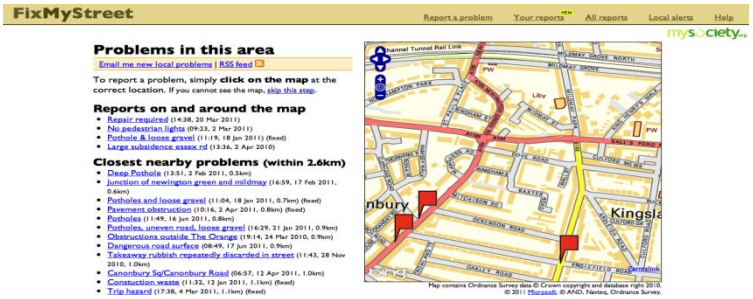

Figure 1: FixMyStreet.com homepage

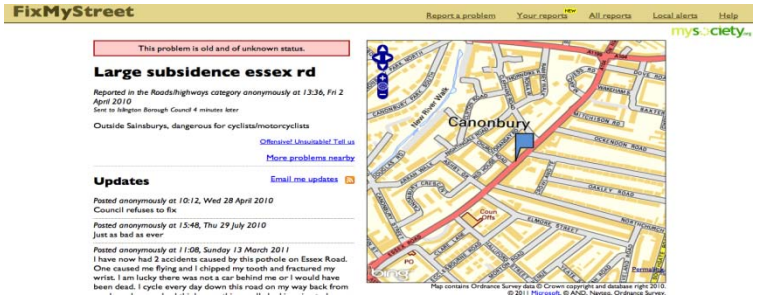

Figure 2: Details of a specific problem

Efficiency, transparency, and accountability are primary values that guide the FMS project. When King & Brown (2008) interview FMS developers and local council officers at a very early phase of the project, they mainly emphasize improving the quality of public services as their main objective, quality being associated with efficiency mostly. Their concern for transparency in public services plays a major role in design as one of the website developers say, “In 10 years time I’d like to see all councils running their internal systems (planning, tree preservation orders… everything that isn’t about individuals) in public, so everyone can see and be reassured about what is being done, why and where” (Irving, 2008). Efficiency and transparency are spiced up with ‘a little bit accountability’ (Steinberg, 2011), while some think FMS features empower ‘the general public in their dealings with their local council’ (Somerville, 2008). The values are translated into FMS design in varying degrees. For example, compared to typical local government feedback systems, like telephone or web form, FMS seems to offer marginal efficiency: It takes only three clicks to report a problem using FMS while seven clicks through a government website (King & Brown, 2008). Complaints are disclosed to the public; hence the responsibility of holding local governments accountable is distributed to a larger number of people. Users can either remain anonymous or create accounts to have access to their reports or others’ so that anyone can track all the problems in one neighborhood as well as how well other councils perform in response to reported problems.

Although efficiency, transparency and accountabilty seem to drive FMS project, hence its design, those values are translated into features in small doses. Efficiency, for example, applies to only those services that FMS chooses to deal with. In other words, citizens are constrained by already-defined categories of issues/problems and if they want to report a not-listed issue, they are advised to contact their councils directly. While public reports and their results are open to everyone, hence transparent, users cannot find enough information how the website works from start to end. For example, citizens, who want to use this service, do not have clear information about how long they should wait for their problems to be solved, how they should follow up if their issues are not taken into consideration or what they should do if they are not satisfied with the response they get. Local councils, also, do not disclose any information about the process of dealing with complaints and it is, most of the time, users' responsibility to update the status of reported problems. As for accountability, local councils can be controlled only about whether they fix problems or not. How they choose which problems to deal with over others or what kind of measures they take to reach a certain end are not shared on the website. When an issue cannot be solved, users can press local governments through opening new reports or posting comments but there is no other feature that would encourage users to take further action about their problems. Failing to afford users further options for resolving unknown/unfixed issues, FMS design does not either create an alternative accountability mechanism that would show the performance of local councils over the duration of their reply or fixing problems. On another level, FMS may play a rather informative role and offer other ways (online/offline) to pressure local governments. However the FMS developers do not seem to push accountability to those levels in design.

FMS developers do not seem to prioritize in design, but citizen engagement is a core value behind many mySociety projects. Some scholars who have previously studied FMS argue that this new mode of engaging citizens in (local) governance not only holds local councils more accountable but also increases citizen engagement (Dörk & Monteyne, 2011). Engagement denotes a number of ways to involve citizens in any decision-making process. Having access to information, giving feedback in the form of online voting or comments, and an active participation that acknowledges a substantive role for citizens in proposing ideas and shaping dialogue are three different categories of engagement as outlined by the OECD (2001). In the literature of citizen participation and e-government models, for example, since citizen empowerment entails placing final decision making authority in the hands of citizens, civic engagement requires going beyond a passive, rather consumer role to an active one that

produces ideas or makes decisions (Nabatchi & Mergel, 2010). However, the design of FMS starts from a point of reporting and tracking non-emergency issues that keep engagement at a basic information/consultation level. FMS design is certainly easy to use and this easy, seemingly effective, use may attract more citizens to contact their local councils online. However these citizens would presumably be the ones who are already interested in local governance issues and use FMS for efficiency purposes. The current FMS design does not seem to reflect this user characteristic and include any features that would boost their participation in local governance at more sophisticated levels. They could encouraged to play a rather active role on the website like using gamification features like awarding them 'civic points' based on to what extent or how often they are involved in local community issues.

On a different level, does FMS offer any incentives to engage citizens, who would not otherwise – as that is one of the targets in many mySociety projects? It should be clarified that sustaining inclusivity in local democracies, i.e. serving every social group and ensuring their participation, is quite a difficult task that cannot be achieved by one website. As Escher (2011) explains, "participation has always been biased towards resource-rich citizens, i.e. those with better education, higher income and larger social networs" (p. 31). FMS, on the other hand, is an online system that requires a certain level of digital literacy, not to mention having access to the Internet. Hence those that are already underserved or do not have necessary means to effectively participate in local governance are expected to miss the opportunity of using online services (Helsper, 2008). In other words, online participation may be less inclusive than offline participation, thereby reproducing already-existing inequalities in a given local community. However, the FMS designers, who presumably want to engage citizens who would not otherwise, may add some features to the design to reflect their concern. To start with, the website can play a more informative role in explaining how more citizen engagement would improve local communities or how individuals can contribute to local governance through various ways. Inviting local community groups to promote their causes/ideas on the website or add some news features to attract users would be other measures that would demonstrate FMS deliberately attempts to attract a wider group of people in local areas. The website can operate in languages other than English in accordance with the dominant ethnic groups in different neighborhoods, or reporting problems can be enabled through texting and/or Twitter/Facebook to be able to talk to a larger group of people with varying digital skills and access.

Besides value-centered concerns in the technical design, there is a larger political implication that is engendered through websites that work like FMS, particularly if they

proliferate in the future to an extent to replace current offline services. While such (w)e-governance projects are at a developing phase, it is highly crucial to discuss on what values they are built and how they influence government-citizen relations. “Stick a pin in the map, type in your problem, and zoom! Off it goes to the council” not only explains how FMS works as they express on their main page but also implies a form of civic engagement that is momentary, fleeting, fast, problem-focused, and limited to a relationship between the government and the individual. As the nature of interaction between local councils and citizens stay at a rather passive, one-way, transactional level with the former playing the role of the provider and the latter the consumer, FMS system resembles a customer complaint service rather than a local governance platform. Civic engagement at local level, through the design of FMS, is limited to reporting physical problems in a neighborhood. In other words, it is always associated with a problem or complaint rather than becoming an every day political interaction. Citizens cannot voice their thoughts or ideas for the betterment of their communities through a rather positive language or constructive feedback like asking for a new park or a cultural center. They cannot celebrate positive news about their community/members or promote their ideas on various topics. Not only, the current government-citizen interaction is problem-oriented, it is also ephemeral since all the issues reported are ad-hoc cases rather than structural problems/questions. Long-lasting discussions between local governments and citizens would certainly require not only attention, but also participation from wider community thereby creating a stronger relationship with governments as well as between community members. One of the council managers interviewed by King & Brown (2008) expresses the need for more “citizen input and the wisdom of crowds – community input- into problem fixing” (p. 78). In a policy briefing on local governance prepared for the UK government, the researchers also address how complaint/redress services online need to be “more community led, reflexive, responsive to citizens and inclusive and supportive of their contribution” (Pratchett et al, 2009, p.26).

The current FMS design, however, approaches civic engagement from a rather individualized perspective, i.e. interacting with other members of the community is very limited, with the claim of being more “user-centered” in the words of one of the FMS developers (King & Brown, 2008, p. 77). Jenkins (2011) argues that civic engagement is not about connecting citizens with governments only, it should aim to connect “all sorts of local entities and individuals with one another”. In that respect, creating opportunities for community building and collective action should be a primary objective in designing such systems. The

same concern is echoed by citizens, community activists to be more precise, when King & Brown (2008) interview them as prospective users of FMS. They point out the need for "signposting the presence of local voluntary/community groups, provide message boards and chat forums, and allowing users to discuss anti-social behavior issues online" (p. 78). However, as the authors point out, the FMS designers' starting point is not to create a community website as they think "they are too complicated" (King & Brown, 2008, p. 77). Hence, rather than contributing to the formation of a local community online, FMS reproduces a political interaction that confirms the problem-solver role of the government and limits citizen involvement to reporting complaints and tracking their resolution. That said, the FMS developers might be satisfied with the design as it certainly improves the prior, offline system with respect to efficiency, transparency and accountability. However it simultaneously produces an individualized, momentary, issue-focused government-citizen relationship while neglecting collective action and community power. The next section of the paper aims to go beyond the intentions of FMS developers and discuss how civic values can be manifested in design.

Civic Values Centered Design

Creating a design for a group of people is not an easy task. Driven mostly by commercial interests, websites and mobile applications usually focus on the individual as their point of contact rather than a group of people. As Shirky (2003) admits, not only most software and interface designs lean toward single-user assumptions, but also it is not easy to test good group experience or to get feedback. However, bearing in mind that community values constitute a separate category from individuals', designers are challenged to incorporate such community-centered design perspective in their projects, if communities are one of the stakeholders. Loader et al (2000) argue that communities operate at an intermediate level of social life between the "personal (individual/family) and the impersonal (institutional/global)" (p. 81). Hence, this distinct social space would operate through civic values, rather than state or commercial interests. In community-focused designs, particularly if it is about problems of local environment, a critical concern is to come up with a productive process that would incorporate the values of that particular community with including different interests, values, concerns as well as understanding each other before reaching a decision. As De Cindio and Peraboni (2009) argue the shared discussion space of citizens consist of: a community space, which raises trust between among participants; a deliberation space, which supports the creation of shared positions and consorted efforts among citizens; and an information space, which supports the

sharing of information. Deliberative forums stand out as opposed to traditional forms of public engagement because of the presumption that "they are better informed and publicly oriented" (Wales et al, 2010, p. 3). Thanks to the larger scale of access enabled by the Internet and World Wide Web, there is a chance to have more diverse, if not better, information and alternative channels to bring a larger audience together for discussion, thereby offering an opportunity to revive deliberative democracy, online. In that respect, public deliberation is not only crucial but also necessary for online tools that require or aim to boost civic engagement, particularly at the local community level.

Traced back to Dewey (1927) who saw that it was the problem of the public not to have improved methods and conditions of debate, discussion and persuasion, public deliberation, or deliberative democracy, makes up of a significant part of democratic theory literature. Although its definitions may vary, a very famous one comes from Habermas (1990) who assumes an active exchange of ideas in a reasonable and critical manner as well as listening to others' preferences. In that respect, deliberation not only strengthens the legitimacy of decisions, but also fosters civic engagement through active discussion (Dryzek, 1990). However it sounds like sine qua non of democratic life, it is hard to establish conditions that would sustain deliberation in a community, let alone measure the impact from a researcher's perspective. Gutmann & Thompson (2004) identify core elements of deliberation as reason giving, being accessible to those who are affected by decisions, involving an active decision-making process that keeps the option for continuing dialogue. As Wessler (2008) points out, although *who* deliberates is a critical question in public deliberation, *how* they deliberate and *to what end* are equally crucial. His point is quite relevant to the design process of civic engagement online since designers have the capacity to come up with features that would afford members to discuss issues in a certain way rather than constraining their voices from a topical or a dialogical perspective.

Online deliberation has been a major discussion topic in some scholars' research agenda in recent years, but there is not a consensus on how it works and to what extent it is successful (Albrecht, 2006). In computer-mediated communication, some scholars argue that online identities, particularly if they are anonymous users, not only disturb the sincerity but also have a negative impact on the responsibility of discussants, i.e. not committing to their views in the course of the debate (Dahlberg, 2001). On the other hand, another view asserts that 'depersonalized' discussion can actually result in being more focused on rational-critical argument thanks to allowing more people to feel motivated to join the debate (Dahlberg, 2001). What is really challenging in local community deliberation is that users both should feel in

control of their identity, what they say and how they argue, i.e. they should be engaged, and respect each other with a commitment to the values of the community. It is such challenging, if not conflicting, values that call for deliberation starting from the level of designing these tools.

There is, clearly, not one feature that can provide deliberation online. Looking at how deliberation is identified through a number of elements, this paper can only share some recommendations for design that would also illustrate what deliberation means in action and hopefully would inspire designers to come up with other ways of implementation. Looking at different approaches to measure deliberation, some conceptual values can be listed as open participation, justification (reason-giving), considering the common good, mutual respect, and consensus-building (Wales, Cotterill, & Smith, 2010). "Deliberation requires trusted facilitation", says Coleman and Gotze (2001, p. 17), hence the role that mediators, be it FMS designers or moderators from communities, play is crucial for setting clear and transparent procedures for discussion, keeping the debate alive throughout, and ensuring adherence to the principles set and shared with members. Actively encouraging a forum of ideas that is oriented toward actions for betterment of communities rather than solely focusing on complaints would be a simple, yet crucial step. What is more difficult than getting citizens to spend time on discussing already-existing ideas is to expect them to come up with new ones. In that respect, stakeholders like government representatives, NGOs or voluntary groups may weigh in to kick off some discussions and/or post opinions, suggestions to stimulate debate.

Justification, i.e. giving a reason for arguments, is a critical part of deliberation that should be considered in the design process not only as a value that needs to be operationalized, but also as part of values at play approach when it comes to discussing conflicting values. Adding features that would enable more dialogue between stakeholders as well as encouraging reviewing with justification would be some starting ideas. Without setting the bar too high, visible directions that ask for justifying arguments before letting users post their comments or incentivizing reason-giving through gamification features may be other ways to address that value. Justification, or using user-generated stories to provide evidence for any ideas/discussion posted online, not only ensures preserving rationality within a forum, but it also facilitates rebuttal and opposition of ideas that are essential features of deliberative tradition (Ferree et al, 2002; Wessler, 2008). Opposing perspectives are crucial to maintain diversity of standpoints and to have a dialogical character as Dryzek (2005) argues, hearing other people's perspectives lead to recognizing their needs, "which can be reconciled even when value systems and identities cannot" (p. 221). Hence rather than creating a design that would turn into a bulk of

competing ideas, without leaving any room for reconciliation and reciprocal recognition, designers can assign a more prominent role to moderators to intervene occasionally and lead the group to reconcile their needs. Another example can be letting discussants work on a visualized idea/action plan that would prompt them to realize they need reconciliation at one point. Civility, dialogic structure and responsiveness are further elements of deliberation (Wessler, 2008). FMS, at its current stage, tries to maintain civility, which can simply be translated into the absence of disrespectful or outrageous use of language, by asking users to be 'polite, concise, to the point and not abusive'.

Some Additional Ideas and Concluding Remarks

Attempting to maintain a (online) community that is empowered through engaging in local issues and deliberating over them is difficult to achieve. There are some challenges on the way to success that should be regularly monitored for the sustainability of projects. Clearly, these systems assume a widespread use of the Internet and mobile technologies. Overcoming the digital divide and overseeing how many people can actually become users of such systems are critical for the legitimacy of decisions taken through these systems. Not only access, but also usability/user-friendliness should not be dismissed given the levels of digital literacy and the diversity of communities. Hence creating designs that would accommodate technical and language skills of different age, social, and ethnic groups is quite critical. The extent of participation may still be low given the discernible existence of apathy in political participation, however designers should make sure their design is not a barrier against citizen participation. Even if there is a significant number of participants, in terms of the registered users or log in for example, it is still critical to monitor whether it is 'a superficial or profound participation' (Bohøj et al, 2011). In other words, if most of the participation is through pressing a 'like' or 'vote' button rather than engaging in a dialogue with other members, then deliberation cannot be verified.

Balancing individual needs like privacy, in relation to being anonymous and being reluctant to sharing their information with other members, and transparency, in terms of asking to know whom they interact with, while trying to maintain group dynamics would be another challenge for designers. Although these needs can be addressed in the discovery and translation processes of the design (Flanagan, Howe, & Nissenbaum, 2008), further problems may emerge in the verification step when real conflicts occur in the community. Such moments illustrate how critical deliberation is not only as a value of technical systems, but also as part of value-

centered design process. If successfully incorporated into values at play approach, deliberation can enable stakeholders to channel their perspectives in a particular fashion so that conflicting values can be negotiated in a way that participants understand each other and recognize their needs better.

On the one hand, emerging civic engagement tools like FMS describe their systems as simple tools and do not promise magic. On the other hand, they communicate all these crucial values, e.g. (civic) engagement, collaboration, empowerment…etc., and imply strong promises. Encouraging designers to adopt values like deliberation in the design process and giving them feedback to better operationalize those values can just take the (civic) betterment of communities one step further, since such issues are too complex to be fixed by a software. However urging them to adhere to a value like deliberation in the case of engagement can counteract the prevailing values promoted by the web and mobile technologies that lean towards an immediate, clickable, fleeting, problem-focused and individualized form of engagement, and lead to supporting community models that take time to discuss issues collectively in a civil manner, make an effort to understand each other and constantly revise solutions to accommodate different needs.

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