
Empowerment is not simply a Goal, but Civic Technology still needs it as one

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ABSTRACT

The use of technology platforms for civic engagement is transforming the practices and experience of democracy, as well as the processes of political empowerment and civic education. This demands that such technology be designed more consciously to support citizen empowerment and civic learning. I have developed new metrics and methods to evaluate technology platforms in terms of citizen empowerment in order to replace more common metrics that merely look at a technology's efficiency. This can help establish citizen empowerment as a design goal for civic technology. However, empowerment is not a goal, it is a process and experience. True empowerment will require that the creation of technology be a collaboration of stakeholders, wherein power and agency throughout the design process are shared. Still, I believe that articulating a goal of and metrics for empowerment can be a helpful milestone to making civic technology in empowering ways.

CCS CONCEPTS

• **Human-centered computing** → **Human computer interaction (HCI)**.

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KEYWORDS

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INTRODUCTION

The central question of democratic renewal and empowerment might be, ‘Are citizens “co-creating” their world?’ [2]. To enact citizenship in this way, citizens require “free spaces” that foster civic learning through deliberation, action, and reflection: producing “knowledge power” through shared experiences with other citizens [2]. In my dissertation [6], I proposed 1) a framework for contemporary democracy in which civic technologies should function as free spaces, cultivating citizen empowerment to keep virtuous cycles of civic learning and efficacy in motion for its citizen-users; 2) a set of design principles that I believe can help civic technology designers create the kind of civic infrastructure online and offline that this model of democracy demands, and 3) an empowerment-based research toolkit to evaluate user impact in partnership with civic technology designers.

In this essay, I share excerpts from my dissertation that reflect on some of the politics of collaboration in the field of civic technology, discussing both how I am pragmatically engaging with civic technology companies through better metrics for impact evaluation and where I think researchers, designers, and engineers need to reckon with their sense of responsibility and true empowerment’s demand for greater inclusivity in the design process. This is all through the lens of non-grassroots design practices, but I think it is important to catalog where I am in engaging with elite practices of design to think about how those intersect with the more grassroots threads within the field of civic technology where I do my work.

CIVIC TECHNOLOGY AND FREE SPACES

Civic Technology, might best be described as “a cultural movement of people” who “devote themselves to improving democratic institutions” and building “capacity in the public sector for problem-solving” [12]. These civic technologists create and applying technology in loose accordance to a few fundamental principles articulated by Andrew Schrock as “design locally first; hack infrastructure, not technology; open data can improve communication; organize around public problems; and change government for the better” [12].

The outcome of the work of civic technology are tools, platforms, and practices (mostly digital) that are now part of the increasingly complex and multifaceted infrastructure of democratic participation

and government service provision. Digital technology has been long recognized for affording those seeking social change: “sharply reduced costs for creating, organizing, and participating in protest; and the ability to aggregate people’s individual actions into broader collective actions without requiring participants to be copresent in time and space” [3]. Civic technology attempts to maximally exploit these affordances to serve the public interest.

Not all technology used for civic and political engagement rises to the high standards to which civic technologists in the “movement” ascribe. In order to better rise to their increasing responsibility as mediators of citizens’ civic learning and empowerment in contemporary democracy, I argue civic technology platform designs should be modeled on “free spaces.”

Studying the rise of popular social movements like the Civil Rights Movement and the Knights of Labor, Evans and Boyte propose we reimagine U.S. democracy and the crucial role played by spaces—often voluntary associations like churches and neighborhood groups—that offer a practical civic education for the average citizen:

“Particular sorts of public places in the community, what we call free spaces, are the environments in which people are able to learn a new self-respect, a deeper and more assertive group identity, public skills, and values of cooperation and civic virtue. Put simply, free spaces are settings between private lives and large scale institutions where ordinary citizens can act with dignity, independence and vision.” [4]

They continue, “Democratic action depends upon these free spaces, where people experience a schooling in citizenship and learn a vision of the common good in the course of struggling for change” [4]. Although there is significant variation in free spaces between different contexts, some common features define them:

“They are defined by their roots in community, the dense rich networks of daily life; by their autonomy; and by their public or quasi-public character as participatory environments which nurture values associated with citizenship and a vision of the common good.” [4]

REFLECTING ON MEASURES OF CITIZEN EMPOWERMENT WITH SECLICKFIX

SeeClickFix is a civic technology company which provides an easy way for residents to request infrastructure problems in their local communities be fixed using smartphone app and desktop interfaces. The canonical request is a resident reporting a pothole on a street. Local governments partner with SeeClickFix to use their back-end system to track service requests. Those requests are addressed by city workers, and SeeClickFix users are notified about any change in status of their request, including when it is closed. SeeClickFix users seek out tools that provide explicit opportunities to increase their ability to influence the behavior of an institution like their local government, which makes such a platform ideal for evaluating a civic technology in terms of empowerment.

¹I defined three types of perceived political efficacy in the study and created questions based on existing validate surveys to measure each. Internal Political Efficacy: A user's perception of their own ability to address problems in their local community. External Political Efficacy: A user's perception of their local government's receptiveness to their attempts to address problems in their local community. SeeClickFix Political Efficacy: A user's perception of the SeeClickFix platform's ability to help address problems in their local community.

²To put their responses in context, it is important to characterize SeeClickFix's ethos as atypical within the technology industry. The mobile product manager is a former theology and ethics scholar and the director of engineering is the state director for Connecticut's YMCA Youth and Government program. The company's public statements, especially the CEO's, about transparency, responsibility, and citizen empowerment arise from what is likely a deliberate effort of civic-minded designers to create a corporate culture with its own free space qualities and to attract other similarly civic-minded people to join. Their level of receptiveness to empowerment-based design and research methods cannot be generalized to the wider Silicon Valley-influenced civic technology landscape. Future efforts to forward the research and practice agenda I put forward in my dissertation will require cultural changes within companies to make them more like SeeClickFix, rather than expecting my proposed citizen empowerment impact evaluation metrics to be able to impose such change from the outside.

After running a survey with 9,000 of SeeClickFix's users about their sense of empowerment, in terms of political efficacy,¹ to influence their local government and performing a preliminary analysis of those responses against the trace data from those same users, I shared my findings with SeeClickFix design staff, including their CEO, director of product, director of engineering, and the manager of mobile products. And I interviewed them individually to capture their reactions to the research and reflections on the process.²

Reflecting on the tension between designing for government partners versus citizen users, one staffer noted, "There is a lot of lip-service given to the concept of citizens being engaged.... People just want to be heard.... SeeClickFix is a really valuable thing—the fact that it is a forum in which a voice can be given and the word can be spoken, whether or not that need is addressed though is out of our hands, but that is where the tension lies." An example of how the design of the platform has bent away from user empowerment toward government interests is the onboarding page on the SeeClickFix mobile app. Local governments often insist that the first screen to load for their residents be a menu of various city services and announcements, rather than a streamlined path toward reporting an issue, which is usually the main objective when a SeeClickFix users opens the app.

One of the design ideas that came out of our discussion of the research findings was a renewed interest in making the first screen a reminder of the recent success of other users in their community getting their issues closed with a prominent invitation to then report a new issue. This version would serve both the interest of efficiency for the main purpose of the platform and provide a feedback loop that reflects the aggregate efficacy of the user community and performance of the local government. In general, communicating activity and results on the platform was cited as a design goal. The staff want to find ways to show users the impact they are having and can have, but they need to overcome resistance from local governments to more transparency. The CEO noted that the fundamental transparency of all user reports and comments being public (and not removable by city officials) has been a design principle they have refused to compromise on, despite lucrative requests, since day one.

For all staff I interviewed, the research findings highlighting the relationships between political efficacy and closed issues and shorter response times made "visible and tangible" assumptions they had long held about the importance of city responsiveness to user experience and the central objective of their design to empower citizens. Similarly, the skews in the demographic attributes of their user population suggested by the participant sample reinforced long-suspected concerns about whether they were helping the disempowered or just further empowering the privileged (like our respondents with professional degrees). However, the findings also prompted a discussion brainstorming follow-up studies that would allow us to further examine highly active and diverse cities like Oakland and Detroit. They want these partner communities to drive future iterations of their designs. In fact, their most recent user interview trips were to meet users in Oakland.

When asked after possible future research, some staff envisioned opportunities for ongoing measurement of political efficacy (one staffer wanted “real-time” stats on political efficacy). But they also saw departure points for following up with deep, qualitative research, such as going out to talk to users in the contexts where they use the platform and to get regular prototypes in their hands. They want a closer relationship with their users, and this form of evaluation makes them hungry for more. If they had more resources for research, they would conduct user interviews and build custom experimental infrastructure into their platform, but SeeClickFix is still very small compared to a company like Facebook.

PROFESSIONAL ETHICS FOR ENGINEERS AND DESIGNERS

In 2017, the Markkula Center for Ethics at Santa Clara University hosted a symposium on how machines are reshaping civil society. Irina Raicu, director of the Internet Ethics program at the center, writes about the need to rethink ethics training in Silicon Valley [11]. Her program has even produced curricular modules for software engineering courses that ask students to reflect on dilemmas posed by their work and its potential consequences [13]. Using classical texts, the module puts software engineering within frameworks of virtue, human flourishing, and the public good. Ethics evolve along with society as well as technology. However, it is the responsibility of both citizens and technology creators to ask: What kind of a society do we want to create?

The goal of my current work might be framed as an attempt to assemble the building blocks of a “professional realm” for civic technology design [5]. Professional realms like medicine or law represent individual practitioners aligning together as a field to support institutions that maintain high standards for relevant technical competency as well as ethical expectations of professionals to serve other stakeholders and ensure individual members reflect well on whole guild; this alignment in practice might be called “good work” [5]. I believe that the location of digital technology within democracy demands a similar movement for ethical alignment with the field of civic technology design.

I am trying to find ways to transform how civic technology designers design their platforms and tools. This project is in the mold of what Harry Boyte calls “public work,” a way to orient our personal and professional lives toward the practice of everyday politics that serves the public interest [1]. Code for America’s programs and the United States Digital Service’s launch helped make civic technology design an attractive career. There is a difference between “building more civic apps and making all apps more civic,” to quote Nick Grossman [7]. We need to equip technologists to make good on a vision for empowerment against the status quo Silicon Valley mindset of platform-centric growth.

I believe we must understand the creators of civic technology as stewards of democracy with an ethical obligation to serve the public good. We should consider the context of civic technology design in the same way Bernardo Zacka depicts street-level bureaucrats who have an enormous influence

³In Chapter 1 of my dissertation, I define Empowerment-based Design as seeking to build knowledge, skills, identity, and efficacy in its users over the long-term, acknowledging the qualitative experience of participation for citizens. I argue this is a logic of democracy in contrast to the participation-based logic of efficiency that dominates most technology design. Making things easy to participate in is important but insufficient for empowerment and may actually impede the growth of citizens over their lifetime when designers optimize for engagement with platforms themselves rather than with democracy more broadly.[6]

over how well people are served by the state, including access to public services [14]. Zacka writes about the need for these public servants to be able to handle complex and competing normative obligations in their work, otherwise they may retreat to a reductive moral framework, which makes decision-making easier but serves many citizens poorly. He argues that these institutions must be able to respond to a “plurality of normative standards” and the stewards—bureaucrats in this case—must be sensitive to such standards, which will only occur if their organizational environments reflect that pluralism [14]. Not maintaining a diverse environment or keeping in mind the needs of a variety of stakeholders leads to one “normative world” taking “systematic precedence” [14]. This becomes part of a logic of efficiency (versus a logic of democracy) in technology design.³

There is another path for civic technology that I hope to propagate as a cultural shift. SeeClickFix and its staff, who explicitly privilege a logic of democracy over a logic of efficiency—fighting to integrate evidence of citizen efficacy on the opening page of their app and to encourage cities to improve their performance—illustrate what one alternative or plural normative framework looks like in the context of a technology company. Another demands even more meaningful grassroots participation in the design process as Schrock has defined as the direction in which civic technology as a “movement” has been trying to head [12], embracing the phrase “build with, not for” [9].

Empowerment theory tells us that empowerment “includes both processes and outcomes” and is “context and population specific” [15]. Moreover, empowering processes and outcomes vary between community, organizational, and individual levels of analysis, although they are mutually interdependent in cases of campaigns in which citizens come together to pursue change. Psychological empowerment is one way of describing the theory at the individual level. Zimmerman argues, “The specific actions one takes to achieve goals are not as important as simply being involved and attempting to exert control” [15]. More specifically, “an empowered person might be expected to exhibit a sense of personal control, a critical awareness of one’s environment, and the behaviors necessary to exert control” [15].

FREE SPACES AND INSTRUMENTAL VERSUS ASSOCIATIVE CIVIC TECHNOLOGY

Free spaces offer a paradigm for how civic technologies might best support civic learning. They emphasize reflection and discourse in addition to action. However, this may not be suitable or feasible for every tool and platform built for civic and political engagement. Some platforms like Facebook are associative and include many of the generative features that can support building and empowering communities. Other platforms like SeeClickFix or the Obama White House’s We The People are more instrumental in solving one problem of disempowerment for citizens when seeking influence over an institution like municipal government. However, SeeClickFix also creates associative opportunities, although not to the degree that would qualify it as a free space in the eyes of Evans and Boyte. Given

the framework of democracy proposed in this dissertation, should all civic technology aspire to be free spaces? The answer is Yes and No.

Citizens are growing and hopefully being empowered through their use of civic technology. But these tools and platforms are not complete systems themselves, they are embedded in complex ecosystems that stretch both online and offline. An instrumental tool like a digital camera on a smartphone when wielded by Cop Watchers becomes part of a system of empowerment rooted in the social practices of that organization, the community that the individual users live and work in, and the local media that can help amplify their narratives. We should not expect the smartphone camera, or even the smartphone and its various applications, to replace all those pieces of the ecosystem. However, if civic technology replaces some of those associational components or creates whole new ecosystems, either purposefully as in the case of SeeClickFix or as a result of their salience to networks of citizens as in the case of Facebook, then the designers of those tools and platforms assume a new responsibility for those citizens, their empowerment, and for the health of democracy more generally. These challenges and responsibilities become more evident when looking at how contentious politics and relational organizing play out over digital technology.

CIVIC TECHNOLOGY AND CONTENTIOUS POLITICS

Facebook was accused of suppressing conservative voices on their site in spring 2016, which led to a high profile meeting with conservative leaders at the company headquarters in which CEO Mark Zuckerberg assured them that the platform is politically neutral. In response, Facebook shut down the program in which journalists curated and edited headlines for the trending topics list and relied on an algorithm to surface them instead. In early 2018, Twitter shut down thousands of accounts traced back to Russian disinformation agents suspected of influencing American political discourse since the 2016 election. These affected the follower counts of conservative figures on the site who complained on the hashtag “#twitterlockout” that their community was being targeted by site administrators.

Smaller civic technology companies also struggle with these questions. In 2011, Salsa Labs, which provides management and communication tools for advocacy organizations, took venture capital funding. This precipitated a shake up in leadership and strategy in October 2012, where the CEO was replaced and the organization removed the word “Progressive” from its website, which was a staple of its mission [10], as an indicator that Salsa Labs would start serving non-ideologically progressive clients. Outrage by progressive clients online promising to leave the platform prompted the new management to reaffirm their commitment to progressive principles [8].

Designing for citizen empowerment, just like designing good policy, is fraught when political partisans are identified with the use of a certain platform or are disproportionately affected by design changes to it. Although SeeClickFix does not appear to exhibit much contention (though their local government partners may argue otherwise), other examples of tools and practices used by citizens

to monitor shared spaces and hold governments accountable certainly exhibit contentiousness and ideological orientations.

One of the features of free spaces is an openness to competing ideas and deliberation and an attempt to reassert the reality that politics is a fundamental part of our everyday lives and not something to designate to certain venues or a class of professionals. Tools like SeeClickFix can put us in conversation with government and make governance more participatory. The fear of civic educators like Harry Boyte is that instead technologies will narrow the range of civic experiences and strip us of our agency in the name of efficiency [2].

It is incumbent on the civic technology community to navigate these challenges and own it as their duty to democracy, as their “public work,” to deliver truly empowering technology.

BIOGRAPHY OF THE AUTHOR

Erhardt Graeff is a professor, social scientist, and civic technologist. He studies how we design and measure technologies in terms of citizen empowerment and civic learning and the ethical responsibility of technologists as stewards of democracy. His pedagogy currently focuses on organizing undergraduate engagement in public interest technology and the context and ethics of engineering, and advising students on stakeholder-driven software projects addressing challenges in the U.S. criminal justice system. Erhardt is Assistant Professor of Social and Computer Science at Franklin W. Olin College of Engineering and a faculty associate at the Edmond J. Safra Center for Ethics at Harvard University. He holds a PhD from the MIT Media Lab, where he was a member of the Center for Civic Media.

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