

What Does 'Failure' Mean in Civic Tech?

We Need Continued Conversations About Discontinuation

Hamm, Andrea; Shibuya, Yuya; Cerratto Pargman, Teresa; Bendor, Roy; Raetzsch, Christoph; Hendawy, Mennatullah; Rehak, Rainer; Klerks, Gwen; Schouten, Ben; Brodersen Hansen, Nicolai

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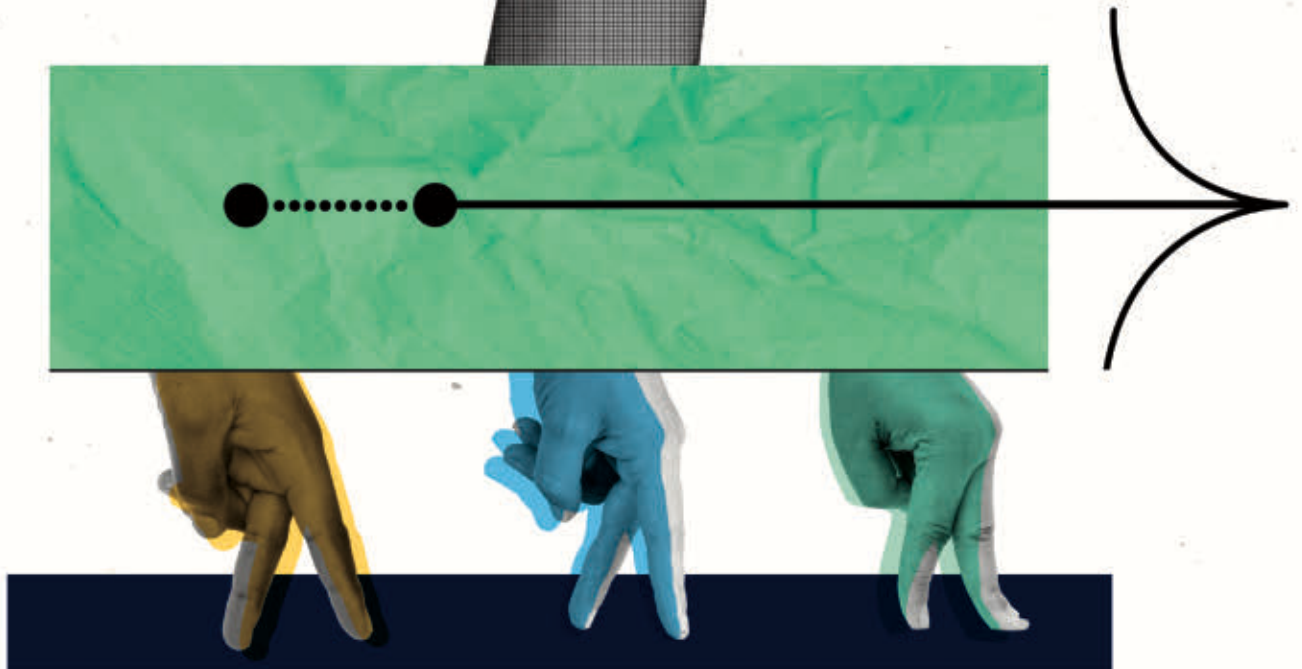
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What Does ‘Failure’ Mean in Civic Tech?

We Need Continued Conversations About Discontinuation

 **Andrea Hamm**, Weizenbaum Institute for the Networked Society
Yuya Shibuya, University of Tokyo **Teresa Cerratto Pargman**, Stockholm University
Roy Bendor, Delft University of Technology **Christoph Raetzsch**, Aarhus University
Mennatullah Hendawy, Ain Shams University **Rainer Rehak**, Weizenbaum Institute for the Networked Society
Gwen Klerks, Eindhoven University of Technology **Ben Schouten**, Eindhoven University of Technology
Nicolai Brodersen Hansen, Aalborg University

Insights

- A lens on failure allows us to identify and reflect on reasons and contexts leading to the discontinuation of civic tech.
- By observing cycles of civic tech, conflicts between research projects and civic tech become apparent.
- Civic tech must be seen as a sociotechnical infrastructure that urges better integration.

Civic tech, also referred to as digital civics in HCI, designates efforts to use technology to bring together citizens, bring governments closer to citizens, or improve public service infrastructure. Such sociotechnical encounters are meant to address public needs and increase interactions and information flows between citizens and/or authorities. In this sense, they represent efforts to bolster democratic participation and oversight [1]. Yet, despite the importance of these goals and due to their inherent complexity, civic tech initiatives are often discontinued, leading to a considerable loss of public

investment and energy and contributing to a sense of failure [2]. To be sure, this is a global phenomenon: While civic tech initiatives emerge at different places in the world, they are often confronted with the same or very similar impediments. But because of the sense of failure felt by those involved, there are few opportunities to openly discuss discontinuation. Events and academic conferences dedicated to civic tech often foreground short-term success stories and published research papers, and so HCI practitioners and researchers miss opportunities to consider long-term perspectives and

slower, ongoing (democratic) transformation processes. What we suggest here, therefore, is that failure and discontinuation should also be seen as productive learning opportunities [3].

We believe that sharing and unpacking experiences that go beyond the more obvious reasons for discontinuation—technical issues, lack of volunteers, lack of budgets—is highly valuable. We need to go deeper and ask for the reasons *behind* the reasons, such as: Why has a technical issue remained unsolved? Why did previously motivated volunteers finally turn their back on a project? Why would a project fail to support itself financially? Working through these questions will allow us to reflect collectively on potential approaches and solutions for future work in HCI and related disciplines. It moves us to produce actionable insights for civic tech initiatives themselves.

In what follows, we detail why we think speaking about discontinuation and failure is of importance to the HCI community, what insights we have gained so far by adopting such an attitude, and what course of action can be pursued by choosing to reflect on the discontinuation and failure of civic tech initiatives.

WHY A LENS ON DISCONTINUATION AND FAILURE IS IMPORTANT FOR HCI RESEARCH AND PRACTICE

Discontinuation of civic tech affects the impact of HCI research and technologies. But impact in research is assessed quite differently from the impact of civic tech on society. When a civic tech research project in HCI is published and received by the research community, it may be seen as having an impact. However, such impact in research does not indicate its longer-term benefit for society, that is, how it may help drive change, provide

meaning, or make sense [4] outside of the research community. For example, research-led civic tech initiatives may be discontinued after research funding dries up, although the project's anticipated goals or societal impact may have yet to be achieved.

Consequently, to be able to inform future civic tech projects by drawing upon previously discontinued projects, we need to rethink what social impact and self-critique mean.

One example of this is the presence of intangible results such as mutual learning, community formation, prototyping, or simply networking. These intangible results or effects are often difficult to evaluate using standard impact and performance indicators, and therefore require further investigation. Asking about what counts as failure in these cases allows us to open up a space of exchange and learning about such initiatives, where failure as such can be problematized and its potential benefits be harnessed in terms of institutional learnings across domains, temporalities, and approaches. This may allow us to identify common patterns of failure, as well as factors that can help achieve both more realistic and more robust civic tech initiatives and better articulate their role in society. Even though we often do not dare to fail, we can conceptualize failure as a productive and creative part of any learning process, while keeping in mind the local aspirations of civic tech approaches in their respective settings and given objectives. It follows that reflecting on failure allows us to unpack the reasons and contexts that lead to the discontinuation of a civic tech project; generate knowledge about the complexity, dynamics, and logics of initiating and sustaining civic tech initiatives; and become self-critical. Reflecting on failure, therefore, opens up ways to learn how to create a more meaningful impact for society.

KEY INSIGHTS AND LESSONS LEARNED ABOUT DISCONTINUED CIVIC TECH

Civic tech is still a fuzzy term in research and practice. The concept of civic tech, although well established in HCI literature, requires explanation when researchers and practitioners converse. Existing definitions include top-down-designed technologies to support citizens, as well as bottom-up interventions without the contribution of authorities. Civic tech projects are highly diverse, integrate citizen participation to varying degrees, and exist inside and outside research practice. A particularly well-known example is the Code for Community framework (e.g., Code for America, Code for South Africa, Code for Japan, etc.), within which numerous civic tech groups and projects were created all over the world. But because not all civic tech initiatives adhere to organizational logics—whether those of the Code for Community or other existing networks—we need to broaden our understanding of civic tech so that it pertains to *all technology interventions that engage with civic purposes*. These range from large campaigns or movements working on a global scale to small neighborhood projects without ambitions to scale. Awareness of the contextual factors in which civic tech initiatives operate is important as well, including geographical, economic, sociocultural, and political aspects. To promote better learning opportunities and better designs, it is essential to understand that civic tech initiatives open up new constellations of actors. Such constellations allow actors to join resources and ideas, promote collaborations, and potentially challenge or transform (power) structures. This complex space of activities requires that researchers and practitioners of civic tech work interdisciplinarily, combining diverse educational backgrounds and different histories and experiences in the field. One of the major lessons we have learned is the importance of finding both a common language across sectors and disciplines and an alternative and diverse language with which to speak about failure while refraining from judgment.

It is worth discussing cycles and

Even though we often do not dare to fail, we can conceptualize failure as a productive and creative part of any learning process.

“recycling” of civic tech. In some cases, civic tech projects can never really be finished. This is because, unlike projects from big tech companies, civic tech initiatives do more than provide a particular solution or product; they also provide an environment for cocreation and social innovation that brings together different stakeholders to collaborate on complex local matters in a constructive and multiperspectival way. For communities and neighborhoods, civic tech can be a platform for thriving, growing, and making change happen. However, communities and neighborhoods often tend to lack the necessary resources. Thus, it is worth discussing the “recycling” of civic tech [5]. For the sake of continuation and appreciation, the remains of abandoned civic tech initiatives could be reused in new forms. In academia, we encourage opening data and code for replication and improvement, and in many cases civic tech is already applying principles of openness and decentralization and should continue to do so. Recycling civic tech is rarely only a technical matter, however, and so merely using an open repository for sharing software, uncompleted code, documentation, and data may not be sufficient. Often social, political, and organizational conditions obstruct or prevent the reuse or recycling of past material, but even when that is not the case it is difficult to motivate and recruit actors and organizations to pick up discontinued civic tech. For example, the Civic Tech Graveyard (<https://civictech.guide/graveyard/>) is an online collection of inactive civic tech projects around the world. The objective of this database is to allow civic tech builders and funders to “learn what didn’t work, so they can make and fund things that do.” Nevertheless, context matters, and so what may have worked in one place may not work in another.

Be aware of conflicts between research logics and long-term civic tech management. When considering research-led civic tech projects, discontinuity appears not as a bug but a feature—an outcome of misaligned temporalities. Research projects often end after three to five years. A research paper may be written, but after that, the community and

volunteers are left alone. This circumstance can create tensions between researchers, the community, and, if included, the public sector. While research on technology handovers has addressed the question of how researchers can integrate a process of disintegration in their research [6], such approaches seem to fall short if the driving force of the project comes from researchers and not the community, volunteers, and/or the public sector. We learned that a lack of responsibility and ownership, a sense of being overwhelmed by the complexity of projects, and a lack of planning appear to be sources of community disengagement. Different approaches to planning civic tech projects in HCI can help remedy this, especially if they manage to decentralize and distribute responsibilities and ownership across stakeholders right at the beginning of a project. Rethinking the interfaces between designers, technology, and participants in civic tech initiatives [7] might provide a way to motivate those already participating to assume more responsibility and take ownership beyond a single project’s runtime.

Further, we learned that different actors have different expectations for civic tech. Open and regular communication between researchers, the community, and policymakers need to be established from the beginning of an initiative or project. Particularly among volunteer community members, good communication and coordination practices help avoid false expectations and prevent misunderstandings. Otherwise, the lack of common goals among actors may sometimes end up in situations in which, as summarized by a project leader from the digital civics umbrella, “instead of empowering citizens to have more involvement and agency within their government’s processes, such technologies could be used as an excuse to simply remove those processes: rather than reconfiguring agency and responsibility, shifting it entirely onto the shoulders of individuals.” To prevent the off-loading of responsibility to community stakeholders, there is a clear need to develop and share methods, novel design approaches, and more resources for stimulating

inter- and transdisciplinarity and cross-sector conversations, not only within initiatives but also with potential stakeholders who would like to take more active roles in developing and applying civic tech.

Civic tech needs to be seen as sociotechnical infrastructuring. Only a few of the many civic tech prototypes developed around the world last. In no small part this is because of the lack of infrastructure and institutional frameworks. Examples from e-government initiatives illustrate how civic tech projects have stalled or been abandoned after an initial phase of popularity and use. Many projects started with a group of volunteers, grew larger and more visible, and were even partly funded. But eventually they faced operational barriers, as they could not be functionally integrated into governmental structures or receive stable (public) funding. As volunteers were confronted with increasingly demanding workloads and shrinking resources to manage increasing demand, projects could no longer survive. This situation often ends up frustrating active community members, resulting in fewer volunteers and undermining the implementation, stabilization, and maintenance of projects. Clearly, a publicly supported infrastructure that can maintain and sustain civic tech interventions would reduce the occurrence of such situations; however, municipalities often lack the needed resources, legal and administrative knowledge, and the internal processes to do that. This points to a deeper structural problem with administrative digitalization that makes it very difficult to integrate civic technologies into existing public structures, leading us to ask: What kinds of (public) infrastructure do we need for functionally integrating civic tech? How can public management processes be reformed to support civic tech integration? Answers to these questions indicate the need to consider civic tech less as a question of infrastructure and more as a matter of *infrastructuring*.

Civic tech also takes place in nondemocratic countries. Civic tech as a field of study and practice is a fruitful ground for both a critical

practice and a future-minded approach to reformulating democratic objectives for the networked age. But while civic tech often implies democratic contexts, civic tech initiatives do not take place exclusively in democratic countries. They also emerge in places without fundamental human rights, where they may potentially counter government perspectives and/or help distribute information and knowledge on matters of common concern that are being neglected by the authorities. In this way, civic tech can challenge preexisting power dynamics. For example, civic tech interventions in post-revolution Egypt have collected data on electricity blackouts to monitor the malfunctioning of public infrastructure; sexual harassment data has been made publicly available to fight against social grievance; and corruption and crime incidents have been captured to prove these incidents are a structural problem. In nondemocratic countries, *discontinued* can also mean that an initiative has been shut down or prohibited by the government, or because of self-censorship, that is, when citizens fear to continue a project and therefore stop it by themselves.

WHERE DO WE GO FROM HERE?

While we acknowledge that there is no blueprint for a successful, sustainable civic tech initiative, seeding conversations about “failure” while being self-critical of our actions may get us closer. This entails questioning our positionalities, assumptions, interests, and intentions as we operate in the civic tech domain in multiple social settings. We believe that reflecting on failed civic tech openly and honestly will help remove stigmas and allow us to discover and promote approaches and solutions that have previously been overlooked.

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➤ **Andrea Hamm** is a postdoc researcher at the Weizenbaum Institute for the Networked Society in Berlin and at the Eberswalde University for Sustainable Development. Her work focuses on the sociopolitical dimensions of digitalization, the transition to sustainability, and the role of digital technologies among civil society actors.
→ andrea.hamm@weizenbaum-institut.de

➤ **Yuya Shibuya** is an associate professor at the University of Tokyo. Her main area of interest is understanding interactions between the virtual and real worlds. She has researched how democratic participatory structures have changed in the digital era, and how these changes affect people’s behavior.
→ yuya-shibuya@ccsis.u-tokyo.ac.jp

➤ **Teresa Cerratto Pargman** is a professor of HCI in the Department of Computer and Systems Sciences at Stockholm University and associate director for outreach at Digital Futures in Sweden. She works with technological mediation theories and is

interested in how emerging technologies affect everyday practices in education and beyond.
→ tessy@dsv.su.se

➤ **Roy Bendor** is an assistant professor of critical design in the Department of Human-Centered Design at Delft University of Technology. His research explores the relations between design, culture, and politics as they unfold in such areas as smart city infrastructure, sustainability futures, and speculative design.
→ roy@digitalsustainability.com

➤ **Christoph Raetzsch** is an associate professor in the Department of Media and Journalism Studies at Aarhus University. His research deals with interpretations of smartness to animate civic innovation in cities, the interfaces and infrastructures of publics besides journalism, and the emergent potentials of media practices to shape public discourses.
→ craetzsch@cc.au.dk

➤ **Mennatullah Hendawy** is an interdisciplinary urban planner working on the intersection of cities and technology toward equity and sustainability. She is one of the founders of Cairo Urban AI and is affiliated with the Center for Advanced Internet Studies in Bochum, Germany; Impact Circles Berlin; and Ain Shams University in Cairo.
→ mennatullah.hendawy@gmail.com

➤ **Rainer Rehak** is an associate researcher in the Digitalization, Sustainability, and Participation group at the Weizenbaum Institute for the Networked Society and a guest researcher at the Berlin Social Science Center. His interests include convivial democratic digital technologies. He is cochair of the Computer Scientists for Peace and Societal Responsibility (FIF) forum.
→ rainer.rehak@weizenbaum-institut.de

➤ **Gwen Klerks** is a Ph.D. candidate at Eindhoven University of Technology and University of Technology Sydney. She investigates how designers can collaborate with civic communities to promote sustainable urban futures, specifically how designers can support communities to take collective action.
→ g.klerks@tue.nl

➤ **Ben Schouten** is a full professor of playful interactions in intelligent systems at Eindhoven University of Technology and scientific director of education at Amsterdam University of Applied Sciences. He is an advisor for the European Commission on the IoT as well as for the Dutch Cultural Media Fund.
→ bschouten@tue.nl

➤ **Nicolai Brodersen Hansen** is an assistant professor at Aalborg University. His research is situated within HCI and participatory design. He focuses on understanding, modeling, and improving digital tools and activities that support design-based collaboration in a range of domains, primarily with a civic bent.
→ nbha@cs.aau.dk