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The Makers of Civil Society
A Review of Civil Technologists

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Abstract

The community we are choosing to call Makers are individuals and organizations involved in the creation, operation, and impact of public interest technologies. We have found that this community is scantily represented in the literature reviewed and that it sufferers from failings in our current funding systems. These findings are notable when considered in conjunction with literature that discusses the shifting role of civil society and the continued digitization of our lives. Taken together, the literature paints a picture of a community that is important to the future of public good initiatives and that is currently underfunded and underdescribed.

Introduction

The purpose of this study is to better identify and understand the individuals and organizations who facilitate the development of technological solutions to the problems that civil society faces, a community we are choosing to call Makers. It is important to note that the literature is also projecting a shift in the role of civil society, wherein civil society supports governmental and private sectors in public interest initiatives.[1] We also must consider the literature reviewed on our community of interest in context of this shift, how they are affected by this shift, and the ways in which they may be facilitating the integrated model of civil society.

Review of Literature

Makers: Who They Are and Why We Care

Makers, for the purpose of this literature review, are individuals and organizations involved in the creation, operation, and impact of public interest technologies. Importantly, this definition is intended to include people whose role in public interest technology is outside the typical coding and app development aspects of these operations, such as app designers, public good entrepreneurs, program managers, and other such individuals. These groups are important inclusions to this definition as they are often those responsible for identifying problems or needs, and who ultimately own the technologies developed. These people may lack the skills necessary to code civil technology apps, or design tech-centric processes that benefit civil society, but they still facilitate their creation.

> "Technology roles within organizations are diverse, and span a spectrum of skills and issues. Tech work is not performed only, or even primarily, by software developers"
>
> — Sasha Costanza-Chock

Our interest in Makers is multifaceted. First, the literature reviewed indicates that the technology-oriented segment of civil society is a critically underserved community, with public interest technologists often choosing to not identify as such due to the lack of funding and support for this community.[2] Second, supporting Makers improves the tools and processes available to the rest of Civil Society. This connection is supported by literature stemming from traditional Maker publications[3] and from cross-sector publications pertaining to the benefits of supporting innovation.[4]

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[1] World Economic Forum, *The Future Role of Civil Society* (2013).

[2] Sasha Costanza-Chock et al., *#MoreThanCode: Practitioners Reimagine the Landscape of Technology for Justice and Equity* (2018).

[3] Dale Dougherty, "The Maker Movement," Innovations: *Technology, Governance, Globalization* 7, no. 3 (2012); Dale Dougherty, "The Maker Mindset" in *Design, Make, Play* (Routledge, 2013), 25 – 29.

[4] Jacques Bughin et al., *Tech for Good: Smoothing Disruption, Improving Well-Being* (Washington, D.C.: McKinsey Global Institute, 2019); Sweta Govani, *Global Development Innovation Landscape Q2 2019* (Global Innovation Exchange, 2019).

Barriers That Makers Face

Makers are a largely underserved and underrepresented aspect of civil society. Many of the issues they face can be traced back to failures in our systems of funding. While it is no surprise that any organization or sector would position funding as an area of concern, as we will discuss below, Makers face a somewhat unique difficulty in securing funding.

Makers Struggle with Funding

Our review of the literature highlights the difficulties that Makers face in securing funding.[5] The literature indicates that there is a gap in traditional donation systems that causes Makers to struggle in this regard. There are very few grants and donations geared towards technology-oriented nonprofits or even technology-related programs of nonprofits. Instead, the majority of attention and funding flows to mission-driven sectors of civil society, such as food security, homelessness, etc., and often overlooks organizations and programs that are focused on building technology capacity in civil society.

As mentioned previously, this issue also encourages Makers to obscure their identity as technology-related organizations in an attempt to access funding. This behavior draws attention to gaps in current streams of funding and also has cascading effects in the collective understanding of our community of interest. The pattern of organizations choosing not to identify as technology oriented may account for some of the lack of information in the literature This pattern is encouraged by the systems of funding that deprioritize technology.

Sustainability

Makers across all sectors face difficulty achieving business sustainability due to limited funders and to a pervasive lack of technology literacy that affects everything from the aforementioned deprioritization of technology to the ability to secure new users of the solutions they build (e.g., a new community platform, an app addressing a need in their community). Projects from large, well-known organizations that have managed to secure and maintain relationships with funders still struggle in this manner.[6] The literature reviewed does not cover the impact that failed or abandoned technology has on the communities in which these programs are piloted or how this lack of business sustainability affects viability perceptions in civil organizations that would benefit from these technologies. This line of inquiry might be explored in the future, but it is currently outside the scope of the initial phase of this project.

Discussion

Our community of interest is a critical source of innovation for civil society as a whole. The literature reviewed indicated that Makers are well positioned to build capacity in civil society but that they are held back due to the issues discussed in this paper. If the projection made by the World Economic Forum[7] is accurate, and civil society is moving towards an integrated model of cooperation where civil society supports the civil efforts of government and the private sector, we need to consider how clvil society is equipped to adapt to this role. If civil society finds itself underequipped to fill this supportive role, it should consider supporting the organizations focused on technological capacity building in the sector.

The World Economic Forum paper that much of this discussion is based on was published in 2013. Largely, we believe that the projections sketched out in 2013 have been mostly accurate and that the trend will continue.

The role of civil society has continued to blur with that of government and the private sector. Some of the major shifts in the roles played by civil society detailed in the paper — including watchdog, service provider, expert, and advocate — have all indeed been integrated into the missions and activities of NGOs across the entire sector. The blurring of these lines has been enabled by several factors related to access to technology and to a lower barrier to establishing or participating in a public, online platform (e.g., Facebook, Twitter, and various online news outlets). Simultaneously, the private sector has seen an increase in services previously provided by civil society, including corporate responsibility initiatives.

Much of the literature reviewed looks toward the future and considers the projected changing role of civil society. The literature reviewed also highlights an overarching need for civil society to focus on building equity in the digital ecosystem. Specifically, there are concerns about how digital solutions have been weaponized against the vulnerable populations they were intended to assist,[8] and there are also several calls for better models of data governance.[9]

5   Costanza-Chock, *#MoreThanCode*; Govani, *Innovation Landscape.*
6   Knight Foundation and Rita Allen Foundation, *Scaling Civic Tech: Paths to a Sustainable Future* (2017).
7   World Economic Forum. *The Future Role of Civil Society* (2013)
8   Mutale Nkonde, "A Case for Critical Public Interest Technologists," *Points: Data & Society* (blog), 2019.
9   World Bank. *World Development Report 2021: Data for Better Lives*, World Bank Publications (2021).

Conclusions

As our daily lives are increasingly digitized, data governance should be considered a chief concern for civil society. Access to technology and data protection are important factors in how individuals experience general well-being and access services. Programs in which people experiencing homelessness and other vulnerable populations are equipped with smartphones or computer access already exist.[10] These individuals are equipped with smart devices so that they may better access services. This pattern highlights the importance of being connected to the digital world, and helps make our case for supporting Makers.

Overall, the literature paints a picture of Makers as an innovative and valuable community slipping through gaps in contemporary funding systems. This situation is exacerbated by a general lack of representation in the literature, and a negative feedback loop wherein Makers, by whatever name they call themselves, are choosing to not identify as technology-oriented in an attempt to secure funding. This loop likely contributes to the lack of understanding of this community and may be one of the contributing factors that makes them an underserved part of civil society.

Moving forward we need to better understand the pressures that Makers face operating in civil society so we can learn to address these pressures. By enabling Makers and addressing the systematic failures of our funding systems — and learning to support them in their development cycle — civil society stands to greatly improve the reach and impact of its efforts in communities around the world.

Recommendations for Future Research

Further research on this community is needed. The literature reviewed fails to provide the qualitative data we are looking for to contextualize our interest in serving this community. There are almost no firsthand accounts of the lived experiences individuals and organizations have in trying to produce technology for social betterment.

To address this gap in the literature we suggest a new series of semi-structured interviews aimed at better understanding the pressures this community faces and how it addresses them via a grounded, exploratory approach.

Using a grounded approach is appropriate for this study since it will allow us to adjust our methodology and research questions to account for emergent themes and to account for our evolving understanding of our research community and their experiences. Given that Makers are so poorly represented in the literature, this approach will give us the space to adjust our approach as we learn what does and doesn't work in terms of methodology and to develop new research questions based on our findings.

We suggest using a snowball sampling method in conjunction with random outreach. Snowball sampling uses participant networks and connections in the community of interest to recruit new participants. This method is ideal for communities that require a large degree of trust to break into — communities that are spread out either geographically or across areas of interest (as in our case) and generally hard-to-reach populations. Using this method will also allow us to better understand the participant network, which we could treat as a research finding in and of itself in a manner consistent with network theory research. Random outreach will account for any difficulties that snowball sampling may present.

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[10] Federal Communications Commission, "Lifeline Support for Affordable Communications," last modified July 29, 2022. https://www.fcc.gov/lifeline-consumers; Claire Cain Miller, *The New York Times*, April 14, 2015.

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