



Knowledge, evidence  
and learning for  
development

# Intersections of Technology and Civil Society

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*Kirsten C. Williams  
Recrear International  
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## Questions

*What evidence exists around how technology is disrupting the role of civil society? In what ways is technology facilitating the disintermediation of civil society? What sorts of approaches have been recommended for civil society to respond to these changes and the impacts on the people they work with, and adapt for the future to ensure those people are not further excluded?*

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## 1. Summary

Technological developments of the last 30 years have revolutionized societies and democratised participation. The prospects for integrating more technological solutions to complex issues are growing while the role of civil society is shifting and in some cases diminishing. This report discusses how technology is disrupting civil society, especially with regard to disintermediation, and draws out what to anticipate about the future of civil society in the digital age. It reviews how technology has affected civil society, given the advent of disruptive innovation, new manifestations of civic engagement and the proliferation of new complex problems; identifies some of the ways in which civil society is experiencing disintermediation as a direct and indirect result of technology; and draws out some of the ways in which civil society might adapt to become more resilient towards the future.

There is a wide body of academic literature on social innovation and Information Communication Technologies for Development (ICT4D). A smaller body of research exists around the evolution of civil society organisations, with only a few articles addressing disintermediation. The crossover between civil society and the digital revolution is only minimally explored and coverage of newer technologies and their implications for civil society is rare.

Reports commissioned by large NGOs and think tanks discuss civic engagement, harnessing technology, digital policies and the frontiers of technology. The more frontier conversations at the nexus of civil society and technology are captured in expert blogs but are still speculative. Undoubtedly, there is a lack of sufficient empirical evidence. The novelty of technological advancements makes studying disruptive change difficult. Albeit the observations detailed in this rapid review, far more research is needed on how technology impacts the future of civil society.

Although civil society loosely represents a group of formal and non-formal organisations/associations with diverse social interests beyond those of the public and private sectors, they are by no means a homogenous group. More nuanced research is needed to understand how different segments of civil society may be affected by technology.

## 2. Disruption at the Nexus of Technology and Civil Society

### Democratisation of Civic Engagement

Historically civil society manifested from the articulation of local interests of citizens to form collective action (Clark, 2011). Yet the plurality that civil society is meant to represent is often replaced with a narrow conception of civil society as non-governmental actors (NGOs) (IFTF, 2008). The digital revolution is changing this. Thanks to the lowering of barriers to entry and innovation, software, applications and systems are no longer cost exclusive. This improvement to accessibility allows smaller players to leverage technology that was once only accessible to large organisations and donors. An entirely new generation of change makers is surfacing and independent civic organising is experiencing a resurgence (Arrillaga-Andreessen, 2015; FSG, 2013). The generation that has grown up with digital technologies, the so called 'digital natives', are only beginning to assume a greater role in shaping and creating tech-savvy institutions (ITFT, 2008).

The other notable feature of modern technology is that it is changing the geography of politics. Social-media powered mass movements like the Zapatista uprising, the Arab Spring, the Occupy movement, and others (McLennan, 2016) illustrate how communities grouped around interests can now more easily organise locally as well as globally (Clark, 2011; HCSS, 2017). Consequently, the democratisation of civic engagement is pushing formal civil society towards a critical moment of reorientation and repositioning. This implies problem solving and organising in entirely different ways (ICSC, 2015).

## **Disruptive Innovation**

The nature of change has evolved drastically. These ‘disruptive changes’ are characterised by their speed, scale and abruptness (ICSC, 2013). The rise in political, technological and planetary disruptions threatened civil society organisations: the model for change is different and if organisations are to remain, they too must change (ICSC, 2015).

The private sector has pioneered integrating emerging technology in business models to improve service delivery and anticipate change (Kleine & Unwin, 2009). It was foreseeable then that businesses were poised to lead pro-poor innovation, addressing ‘mega-markets’ of micro-consumers in developing economies (Sharma, 2015).

There have been many strains of innovation, and most have been spearheaded by private-public ventures. The private sector and social enterprises have demonstrated to governments and development partners that they can contribute to development processes. NGOs now find themselves competing against these new actors for scarce funding in a time when foreign aid is also diminishing (FSG, 2013). The dilemma invites civil society to turn towards new kinds of partnerships to stay relevant but also to survive. According to Deloitte’s 2018 publication ‘Succeeding in the age of digital transformation’, NGOs and charities are expected to have the least amount of influence in shaping the digital era. Rather, public and private businesses lead the change followed by intergovernmental agreements, government agencies and grassroots movements.

## **The New Challenges of the Digital Revolution**

The innovative prospects of technology for trade, governance, transparency and social inclusion also present new risks and challenges. In a discussion paper the Friends of Europe think tank (2017) identifies how technology challenges labour markets with automation, creates digital inequality and exclusion, spurs malicious cyber activity and opens unprecedented data privacy and regulatory issues.

An expert insight issue on technology and civic engagement by RAND (2017) further signals that digital technologies also have the power to misinform and create divisions rather than connect and critically engage citizens. In recent years, we have seen social media used to interfere in political elections and recruit on behalf of terrorist groups (HCSS, 2017). Consequently, the ethics of technology are now a part of mainstream discussions at the highest levels of power (CAF, 2018).

Despite the hype around civic engagement, digital technologies do not automatically lead to democratic participation. Recent events have demonstrated that social media technologies have a tremendous capacity to create division. The Friends of Europe think tank affirms that technology presents new challenges, most of which the public is unprepared for. The risks of a deepening

digital divide grow more prominent the faster technology evolves, leaving the digitally illiterate behind and accentuating already occurring divides (Friends of Europe, 2017). This includes division along gender, class, urban/rural, North/South lines (Fife & Pereira, 2016). Critics further assert that the speed at which ICTs develop has the effect of eliminating unskilled workers and creating exclusionary structures adversely affecting vulnerable populations (Fife & Pereira, 2016; McLennan, 2016).

### **3. Disintermediating Civil Society**

#### **Emerging digital intermediaries**

The internet and mobile telephony have jointly demonstrated the power of network technologies. Today they are fostering user engagement with the global economy (for example, M-Pesa mobile banking in East Africa) and with their civic responsibilities (mobile technologies to report crime, election irregularities, counterfeit prescription drugs etc.) (HCSS, 2017).

Advances in technology are not just democratising participation, they are also cutting out intermediaries. Blockchain and other decentralizing platforms are dismissing traditionally central intermediaries. This carries implications for government institutions, civil society and the private sector. At a time when citizen confidence in political systems and major institutions is low, distributed consensus platforms appeal to the public (Atzori, 2015).

In their 2017 annual report on 'Volatility and Friction in the Age of Disintermediation', The Hague Centre for Strategic Studies signals that there are growing instances of 'collective-action politics' where citizens are bypassing organisations or institutions to articulate their causes. For example, a group of Ecuadorian women in 2011 set up a petition via change.org to close clinics that were torturing homosexual patients and to launch a nation-wide campaign against homophobia (Arrillaga-Andreessen, 2015). In the realm of funding, e-philanthropy websites like change.org, Crowdfunder, Kickstarter and others have gained global popularity, especially catering to the younger generation (FSG, 2013). This type of informal organising recalls civil society's activist tradition, one that many larger organisations have since abandoned.

#### **Changing Funding Landscape**

The International Civil Society Centre (2015) predicts two scenarios of how digital technology will affect NGOs as intermediaries. They describe a possible near future when web accessibility is more widespread in the Global South and the younger generation will prefer direct giving as opposed to seeing 20 to 30 percent of their money go to the intermediary. International civil society organisations will need to decide whether to lower their costs, reengineer the fundraising model, or give up the intermediary service as a source of income altogether.

The other scenario put forward foresees the proliferation of virtual civil society organisations like Kiva and Global Giving. These newcomers will co-exist with more traditional INGOs who will defend their value in programme-driven intermediation to donors and recipients alike. INGOs will continue having to clearly justify their overheads (ICS, 2015).

Most literature suggests that adapting to the digital age will be costly for NGOs of all sizes. UNCTAD's (2018) Technology and Innovation Report stresses that successful innovation systems

require funding from a multitude of source including grants, market-based solutions, philanthropic giving and private capital.

Frontier technology may also provide fundraising support in the future. The Charity Aid Foundation speculates how algorithms can be used to prompt users to donate to certain organisations based on their interests. The report also cautions that ingrained biases within algorithms may serve larger more reputable organisations over smaller ones (CAF, 2018). This would disadvantage smaller civil society organisations that already face this challenge.

## **Autonomy of Emerging Economies**

The growing prominence of the emerging economies is another factor pushing the trend of disintermediation. The Asian Development Bank highlights that these countries are making a transition into knowledge economies by strategically employing technology (Klein & Unwin, 2009). These governments are investing in research and development and providing tax incentives for innovation (UNCTAD, 2018).

Emerging economies are less keen on Western involvement and more interested in re-appropriating their own national development agendas (HCSS, 2017). Technology optimists believe that technology can be an ally to help lower-income countries leapfrog in their development process, bypassing intermediate phases through which nations have historically passed to develop (HCSS, 2017). Since built-in technological capabilities are limited, it is likely that lower-income countries will absorb existing technology rather than generate their own (UNCTAD, 2018).

Accompanying national growth, local civil society organisations have achieved a level of professionalism and capacity to manage their own development projects. These organisations apply directly to funding without INGOs as a go-between, and donors are starting to reciprocate (ICSC, 2013).

## **4. Adapting for the Future**

### **Shifting towards governance**

While the private sector and new entrepreneurial social hybrids take the lead in disruptive innovation, many NGOs find themselves settling into oversight, governance and network roles. Moving away from the substance of policy-making and service delivery, NGOs will have a bigger say in informing nascent development challenges of the digital era (Clark, 2011).

The body of research around ICT4D highlights the lack of critical perspectives on how ICTs are being used to further local development and what the socio-economic implications are (Zheng et al., 2017). There is recognition that civil society is best poised to play this kind of role (ICM, 2016; RAND, 2017), especially to better scrutinize rapidly evolving frontier technology (CAF, 2018).

An oversight and safeguarding role pushes civil society to weigh in on areas that are already central concerns to the public, such as privacy rights, fake news, targeted propaganda to influence elections, and autonomous weaponry (Friends of Europe, 2017; CAF, 2018). The mistrust surrounding information will make it more challenging for civil society to advocate on an 'evidence basis' if governments or other actors can refute this with their own data (CAF, 2018).

Working in synergy with universities and think tanks, civil society has the possibility to fill major gaps in knowledge through comparative country case studies, peer reviews, statistics, policy impact models and new digital indicators (Friends of Europe, 2017). This includes creating more stringent criteria for fair, evidence-based and constructive reporting (CAF, 2018).

## Organisational Culture Shift

Although civil society is readily acknowledging the impact of technologies on the future of development, civil society has been slow to adjust themselves to the digital era, due in part to a poor understanding of the various strands of technology, risk aversion and intransigence to accommodate the shift. Yet the literature and expert opinion agrees that a shift in organisational culture is an inevitable part of the evolution of civil society organisations all over the world (Buckley & Ward, 2016).

The Charities Aid Foundation (2018) reports that, unlike the private sector, civil society has yet to integrate people with strong technological know-how and vision into senior management. Among UK charities, 77% wish to see their leadership hold a stronger vision and understanding of how to lead the organisation in the digital era. Most leadership and board members come from a generation less conversant with technology.

UNCTAD's (2018) *Technology and Innovation Report 2018* underscores that digital skills are ever more relevant to the labour force in today's landscape. Frontier technologies appear the most daunting to civil society organisations, with 73% of UK charity staff claiming to have low to very low AI skills. The few practitioners with the technical know-how are drawn towards the private sector, a more attractive employer (CAF, 2018).

Several authors argue that NGOs are not engaging in disruptive innovation; they are updating websites, databases and funding approaches without reengineering their internal structure towards a more tech-apt organisation (Honnor, 2016; ICSC, 2015). The World Bank's (2016) Digital Dividends report considers that development actors can utilise technology to boost efficiency by enabling rapid feedback and improve their performance through trial and error. Organisations tied to cumbersome structures and afraid of failures are cautioned: if they won't adapt, other disruptive newcomers will.

Commitment to organisational learning and the use of practices like foresight are identified as essential to organisations adapting to the present and preparing for the future (Buckley & Ward, 2016). Many INGOs opting for federated models are talking about shifting into a new way of 'being', not just doing (ICSC, 2015). To this end, digital technologies are indispensable to better unify and better coordinate between country affiliates (FSG, 2013). Yet, few clearly identify how technology can be leveraged to support this vision (ICSC, 2015).

Authors of 'The Networked Non-Profit' discuss how organisations that are able to learn from the behaviours of social networks will be fit for the future. Such organisations value social capital and leverage social media and online networks to nourish their network at the core and periphery of the organization. Networks have tremendous currency because they can be activated in key moments to help the organisation fulfil a purpose (Fine & Kanter, 2010). More importantly, embodying features of network inspires the organisation to think in novel ways about how to organise and take decisions (McLennan, 2016).

## Investment Challenge and New Collaborations

Civil society faces an investment dilemma when it comes to technology. Earmarking scarce resources towards technological upkeep and retraining of staff to manage new platforms/systems is a considerable ask and a significant risk for most organisations (Bach & Stark, 2002).

Innovative partnerships between civil society, the tech sector, government and the disruptive change actors can help shoulder the costs and distribute the risk (CAF, 2018). The CEO of PACT International suggests that civil society, government and the private sector are converging into an emerging 'fourth sector'. This emerging space encourages these actors to work together and learn from one another in new ways (Viso, 2016). Additionally, civil society could play a part in closing the gap between activist and corporate entities, both of whom are taking active roles in disruptive change processes (ICS, 2015).

A multitude of approaches from civil society are surfacing. Non-profit and private sector partnerships are one model as illustrated by 'Grameenphone', a Grameen Bank spinoff collaborating with a telecommunications company to connect rural poor to markets (Bond, 2015). Alternatively, organisations may adopt technological change, such as the UK-based Children's Society, for example, which employs Microsoft's Artificial Intelligence-powered live translation tools to communicate with recently arrived young refugees and migrants (CAF, 2018). Others may use technology to monetize existing products, such as the Education Development Centre which is looking to commercialize its youth development and literacy tools (FSG, 2013). Still others are cultivating their brand and social media presence to make the most of online donating and crowdfunding options (OECD, 2014).

While organisations are forced to adapt, grant-making organisations and foundations can also be an important source of support, especially in financing experimental or frontier tech initiatives (UNCTAD, 2018). Despite the initial investment, researchers stress that there is a long-term pay off. Automation for example, would save the organisation the cost of employing staff for advice services (CAF, 2018), afford the organisation better access to their constituents and make room for advanced advisory services (Friends of Europe, 2017).

## Accompanying Digital Infrastructure with Education

Mobile telephony has been one of the most widely adopted technologies in lower income countries. The World Bank (2016) 'Digital Dividends' Report states that nearly 7 out of 10 people in the poorest segments of these countries possess a mobile phone. Still, the digital divide persists. Most of these people still cannot afford or access the Internet. An empirical study in the Telecommunications Policy journal highlights that uptake of digital technologies is too often adversely affected by a lack of electricity, directly affecting Internet usage (Armev & Hosman, 2016). Other studies have affirmed that inadequate ICT infrastructure is a major limitation. Without it, lower income countries cannot adopt newer technology that is dependent on the Internet (Friends of Europe, 2017; World Bank, 2016).

A case study in Indonesia revealed how local disparities in the ICT infrastructure (landline networks, cellular devices, phone signal networks, electricity, internet points and base transceiver stations) aggravate the digital divide (Fife & Pereira, 2016). An empirical study assessing the gap between theory and practice in ICT4D singles out access to electricity as a critical element neglected by most ICT4D projects despite being central to the success of these initiatives.

The increasing liberalisation of energy and telecom sectors may change this as more multi-stakeholder partnerships take place (Armeiy and Hosman, 2016). In terms of Internet access, price variation reflects market failures just as much as policy failures (World Bank, 2016). More collaborative partnerships are needed to help steer broader internet accessibility in the right direction.

Beyond the ICT infrastructure, improving digital literacies will be important to bridging the digital divide (Fife & Pereira, 2016). There is growing recognition of the contribution of local capacity building and skills development to making digital innovations sustainable and accelerants of an equitable economy (Armeiy & Hosman, 2016). Indeed, digital literacy features increasingly in skill development agendas for the modern labour market. The foundational digital skills deemed necessary are just as much cognitive as they are socioemotional (World Bank, 2016).

## Data possibilities and dangers

The data revolution is part of the modern technological landscape, but most data collected does not concern development indicators that would be helpful to creating more socially conscious technologies. For example, the Friends of Europe (2017) Discussion Paper highlights that insufficient gender disaggregated data means that development actors cannot see or properly design technologies that can serve women specifically.

Some technological optimists believe that with sufficient data input, machine learning (ML) technologies and algorithms can create tailored responses for the development sector (CAF, 2018). While AI presents some ground-breaking possibilities, the blurred lines around data ownership and usage present some difficulties. Ever since the 2016 US elections and the Facebook Cambridge Analytica scandal, the public eye has sharpened around data usage (CAF, 2018). Algorithms are in large part responsible for determining the information individuals are exposed to, and these algorithms are under the control of technological multinational corporations based in the Global North (RAND, 2017).

To make these technologies work for civil society organisations means working with qualified technical staff to build the systems and correct ingrained biases. This 'AI alignment problem' describes the challenge of aligning systems to match the prescribed values and goals of organisations (CAF, 2018). The implication is clear: civil society will need to intimately understand these technologies and develop skills accordingly to build socially-aware systems. The World Bank (2016) underscores that the value and uptake of these technologies are directly correlated with how universal, open and safe they are. How technologies are built has become equally as important as how they are used.

The Charities Aid Foundation (2018) also speculates on a future of philanthropic algorithms that take social data, environmental data, and CSO impact data to map out demand and supply in the development sector. The proposal coincides with a period when data-driven decision making is in favour. This kind of information could help organisations avoid duplication and stay relevant.

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## About this report

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