

New Technologies: The Future of Alternative Infrastructures for Peace

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Introduction

The past decade has seen a rapid expansion of information, communication and networking technologies. This paper explores the processes that are being set in motion in the peacebuilding space by this technological growth. It describes three examples of processes that are affected by new technologies: early warning, dialogue and civil society networks. The changes enabled by technology in these processes present networked, decentralized alternatives to established frameworks, and are beginning to exert some pressure on incumbent systems and stakeholders.

This transformation of citizen-led initiatives is critical as we consider the future of peacebuilding. As alternative infrastructures promoting citizen-to-citizen solutions emerge, how will institutions remain relevant? Can this alternative method of getting something done not only get it done, but also exert influence on an existing, sometimes broken, method? We argue that the peacebuilding sector has the opportunity to engage with and support the growth of these so-called 'alternative infrastructures' so as to complement incumbent approaches.

To do so, communities must shape their priorities around for whom, by whom and how peace is built. Rather than dictating such priorities, peacebuilding organizations must focus programming on creating an enabling environment for an organic process to happen in a constructive and participatory manner. While this may seem like an uncertain, radical future, it is the natural corollary of giving millions of people access to new ways of gaining information, communicating their views and building networks from this greater understanding of their ability to affect change.

The Geneva Peacebuilding Platform is a joint project of four institutions:



The future is already here

Science-fiction author William Gibson once said: “The future is already here, it’s just not evenly distributed.”¹ The insights of this paper are drawn from observations made by the [Build Up](#) team in their work to organize the [Build Peace conference](#) and support the community that is forming around it. These insights reflect the seeds of the future that we see at the intersection of technology, civic engagement and peacebuilding.

In essence, new technologies play three essential functions in social change processes. They enable new ways to manage information, allow for new ways to communicate, and create networks in new ways. In all three functions, new technologies offer possibilities for peacebuilders to increase their reach and impact, overcoming both resource and operational barriers. Surely, these functions existed before, but now it is possible to use them in new ways that are transformational. So how do these three functions operate?

First, more people are able to access and interpret large amounts of data, and doing so in new ways. The Open Data movement² has pushed for public sharing of information by organizations - governments, non-profits and companies - to allow for public scrutiny and transparent accountability. Furthermore, the increasing availability of free, open source and user-friendly information technologies is allowing a growing number of civic actors to collect, process and analyse their own data.

Second, growing numbers of people have access to communication channels that they never had before, particularly through mobile phones. Not only is it much harder for communities to be kept in the dark; when used well, new communication channels enable knowledge and ideas to reach and circulate among populations in ways that are meaningful and durable. The power of decentralised communications is evident both in how fast both hate speech and counter-campaigns can spread over online media.

Third, new technologies provide tools to create networks in ways that were not possible before. This allows activists to build organizations that function like networks by using open data and information technologies to remain responsive to circumstances and to empower many individuals to take independent, creative action towards a shared goal. There is great power in organizing through decentralised, network-based technologies, as demonstrated by violent non-state actors and non-violent political activists alike.

The critical thread that links these three functions is the move to distributed processes. New technologies encourage decentralization and distribution of knowledge. This trend offers three particular provocations to peacebuilding practice which we will unpack below.

- If we know that neglect of marginalised groups is most likely to occur in systems where information is tightly controlled, projects to promote peace should connect with its stakeholders in a highly flexible and transparent way.
- If the most effective forms of hate speech are those easy to replicate and share, the same is the case for messages advocating positive behaviour change.
- If some of the most dangerous groups in the world use decentralisation powered by information technologies to leverage a multiplicity of parallel actions in their favour, then peacebuilding should not impose singular ideas or processes either.

¹ Gibson can be heard making this statement during a 1999 interview on National Public Radio. The sentence has since been quoted widely, see here for reference : <http://quoteinvestigator.com/2012/01/24/future-has-arrived/>

² For general reference, see: http://en.wikipedia.org/wiki/Open_data

Community data and early warning

Are local communities empowered or disempowered to prevent conflict by technology-enabled early warning systems?

A growing number of governmental and non-governmental organizations make use of new information technologies to include local voices in early warning systems. In Kenya, a group of technologists and civic activists built Ushahidi in 2008 in response to post-election violence. The platform allowed the public to tell and record the story of violence as they saw it on the ground. It has since been deployed in hundreds of different contexts to support early warning. Similar projects that incorporate crowd-sourced or crowd-seeded reporting abound in conflict prevention programming. Recently, a new strand of early warning systems are attempting to integrate "big data" feeds - whether from social media or from digital media repositories such as [GDELT](#)³. These big data sources act as a "passive pulse" of people's views - gathering opinions and concerns that are not directly solicited.

While opening up early warning processes to hear local voices is an important first step, it is mostly extractive and does not consider accountability from responders. In fact, lack of response to reports plagues many early warning systems - with increased data, institutions often do not have the bandwidth to respond adequately. Partly in response to this failure, some organizations have used technology to increase participation in early warning. The Sudanese Development Initiative (SUDIA) works with conflict-prone communities along migratory routes in Darfur and has identified that enhancing information flows can help prevent conflict by allowing for collective early responses to emerging tensions. The NGO has been running a community communications system that combines SMS and radio to share information along the migratory routes, and has recorded the overwhelmingly positive experiences of collective action that emerge from this shared information source. Just as collective intelligence can help positive collective action, it can also aid violent collective actions: calls to violent action spread faster over mobile phones and the internet. In Kenya, local peacebuilders use the same tools as violent groups to counter negative campaigns by mobilizing collective expression of positive messaging. The NGO *Sisi Ni Amani* runs the PeaceTXT program, which aims to contact people in areas at risk in order to propose a moment of reflection at critical times when calls to violence are spreading. Community informers identify such critical times and report to the *Sisi Ni Amani* team, which then sends out a targeted SMS to interrupt escalation.

The ability to collect information from many people can result in a disempowerment of communities through extractive early warning processes. On the other hand, the ability to share information with more people can empower communities to come up with more effective and creative solutions for collective action to prevent conflict. If we think of how Ushahidi (feedback on violence) compares to PeaceTXT (crowd sourced peace messaging) it becomes clear that the key difference is not the technology that enables access to information, but rather how citizens organize to take action based on this information.

Social media and social cohesion

Are peace activists aided or hindered by social media in promoting social cohesion and reconciliation?

³ The Global Database on Events, Location and Tone (GDELT) is a freely available database that monitors the world's news media in print, broadcast, and web formats, in over 100 languages, with daily updates.

In many conflict situations, the prevailing socially normative or state-sanctioned discourse does not promote social cohesion or reconciliation. When communications have few channels, it is easier to control this discourse and dismiss challengers. As digital communications - and particularly social media - grow, it becomes hard to control dissenting or alternative discourses. An increasing number of peace activists are using this to their advantage. The Peace Factory is a non-profit organization promoting peace in the Middle East by making connections between people on Facebook. The Peace Factory runs viral campaigns on Facebook that encourage people to post messages of love and friendship across conflict barriers, as for instance between Israel and Iran, Palestine and Israel, Pakistan and Israel and America and Iran. The group also leads a number of online and offline initiatives, including a matching system called "Friend me for Peace" that encourages Facebook "friending" across conflict divides.⁴

But not all viral campaigns build on what connects people. There are plenty of hate speech campaigns that spread like wildfire over social media. For instance, Islamic State - also known as 'ISIS' - uses social media channels to both spread its message and recruit fighters. Furthermore, there is evidence that communicating over social media may actually promote polarization of debates. Analysis of hashtags on Twitter to look at the distribution of tweets shows that most people are only connected with topics and people they already agree with, and that very little tweeting happens across more than one controversial hashtag. Ethan Zuckerman has also pointed out that an over-reliance on Facebook can result in homophily - we like certain people or issues, and the ones we do not like disappear from our news feed.⁵

Peace activists can create viral peace campaigns while violent actors can spread hate speech widely, but regardless of the message it may be just preaching to the choir. The key to use social media to build on what connects people is to use it not just to reach more people, but to reach different people; to find - as the Peace Factory attempts to do - ways to connect across conflict lines.

Virtual networks and civil society

Can an alternative architecture for peace emerge from digital or virtual civil society networks?

During the Tunisian revolution, a graffiti reading "Merci le Peuple, Merci Facebook" became famous. There is no doubt that social media played an important role in helping activists network during the Arab Spring. In fact, all around the world virtual civil society networks use technology to remain responsive to circumstances and take independent, creative action towards shared goals. Some commentators have overemphasized the ability of social media to build resilient networks for civil resistance. Some detractors of virtual networks speak of "clicktivism", the notion that partaking in virtual networks might give would-be activists a false sense of participating in a social change movement.

The balance may be somewhere in the middle. New technologies provide networked, distributed alternatives to organizing that create new civil society structures that work for social change and peace. However, these virtual networks are not always resilient. They may appear and disappear quickly, in part because the cost to set them up is low. That is also what makes them more flexible and responsive to sudden events. Their strength is also their weakness.

⁴ For information on The Peace Factory, see : <http://thepeacefactory.org/>

⁵ On homophily, see for example: <http://www.ethanzuckerman.com/blog/2008/04/25/homophily-serendipity-xenophilia/>

Challenges to engaging alternative infrastructures

The examples above all demonstrate different results of technology on peacebuilding practice. They also have something in common: they illustrate that as citizens realise the creative power of decentralised structures that technology enables, they take action in ways that seem to challenge existing organizational models. In other words, we see the emergence of alternative infrastructures: new methods and practices being created by groups for whom existing methods are not working satisfactorily.

What do we mean by infrastructure in this context? Daniel Kreiss describes infrastructure as "the technical artefacts, organizational forms, and social practices that provide background contexts for action."⁶ In other words, it is a mix of technical, organizational and social factors that come together to provide a basis for action, and a framework for getting things done. Some of the features of these alternative infrastructures that help us identify them are the facts that they grow organically, tend to be ad-hoc and temporary in nature, have distributed decision-making processes, and are transferrable across cultural contexts.

Certainly, the future promised by that these alternative infrastructures also presents three important challenges that the development sector will need to address. First, access to information technologies, digital communications and virtual networks is by no means equal. The unequal spread of technological opportunities creates the potential for great inequalities in the use of those opportunities.

Second, the proliferation of opportunities for individuals to create new narratives and highlight fresh stories may lead to the fragmentation of narratives in a given situation. Participants and stakeholders alike may feel confused by the array of voices they hear, and face difficulties judging the veracity and strength of different arguments. This is a challenging issue, but it is also not a new one as every community and context has a plethora of competing and conflicting narratives. While in the past these narratives may have been parsed and simplified by particular actors (often with the best of intentions), their true complexity is no longer hidden by these processes.

Third, in repressive societies, it can be difficult for citizen-led initiatives to complement and work with existing institutions as alternative infrastructures that push for democratic change can be highly destabilizing. In such contexts, encouraging complementary infrastructures to become more stabilizing may render them meaningless to social change if rights and freedoms are not being respected by institutions. This may at times require civic actors to continue working through alternative infrastructures and accept temporary instability in the pursuit of positive social change

From alternative to complementary infrastructures

Understanding the mechanisms by which new technologies affect peacebuilding processes is not an academic endeavour. It is critically important to peacebuilding programming and to the future of peace processes. As communities build on information technologies, communicate in new ways, and build on both to create new networks for peacebuilding, civic engagement and social impact, the picture for the peacebuilding field becomes inexorably more complex. It also demands greater responsibility and engagement from peacebuilding professionals to

⁶ Daniel Kreiss, *Taking Our Country Back*. Oxford: Oxford University Press, 2012.

understand the changing landscape, incorporate new practices, and help co-create the new future of peacebuilding with a broader-than-ever set of stakeholders. Through the alternative infrastructures for peace enabled by technology, a new type of citizenship emerges that is more concerned about fostering relations and taking action with other citizens than building relations with organizations and participating in institutional processes. These alternative infrastructures are beginning to exert some pressure on those established processes, but remain fundamentally outside the sphere of established ideas.

There is an emerging and fundamental tension between these alternative infrastructures and existing institutions: while new technologies encourage us to decentralize and distribute knowledge, many of our most important peacebuilding organizations remain highly centralized. How can a decentralized model of citizen action for local peace activism interface with a centralized model of citizen engagement in peace processes? Is it possible to take these alternative ways of doing things, and enable them to grow into complementary infrastructures, that supplement and inform incumbent ones?

We would argue yes, given the right level and type of engagement from the owners of incumbent processes and infrastructures within the field of peacebuilding. Organizations are beginning to value and incubate community-led development efforts in order to include community narratives into program development conversations, and to allow collective intelligence created at the grassroots level to inform decision making. However, these efforts are in their infancy and need to be built up substantially. Indeed, if thinkers such as Clay Shirky are right, it may very much be in the interest of incumbent institutions to begin this conversation, as the emergence of networked society points to a long-term decline of large institutions.

This does not suggest that large peacebuilding organizations will disappear, but that the future of peacebuilding might not consist of constructing large, monolithic bodies to run peace processes. Instead we may look to a future built on an open ecosystem of practices and ideas that supports a diverse range of initiatives and emphasizes transparency, collaboration and responsiveness among all stakeholders. This may seem like an uncertain, radical future for some, but is the natural corollary of giving millions of people access to new ways to gain information, communicate their views and build networks from this greater understanding of their ability to affect change. The peacebuilding sector should embrace these changes and seek to grow with them in tandem.

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About the White Paper on Peacebuilding: The White Paper on Peacebuilding is a collaborative, multi-stakeholder process initiated by the Geneva Peacebuilding Platform and supported by the Swiss Federal Department of Foreign Affairs. It has the objective to situate UN peacebuilding within the broader peacebuilding universe and to articulate visions for the future for building peace in violent and fragile contexts. The White Paper places peacebuilding within the changing characteristics of armed violence and security, and within the practical evidence of engagements in peacebuilding contexts emanating from a diversity of fields. Ensuring a better relationship between UN peacebuilding and the broader peacebuilding field is a complementary effort to the existing work surrounding the 10-year review of the UN peacebuilding architecture and an effort to take stock of the nature and evolution of the broader peacebuilding universe.