The role of social media and user-generated content in post-conflict peacebuilding

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ABSTRACT

This paper investigates existing examples and literature to the use of social media and user-generated content in post-conflict peacebuilding. First it provides an overview of general literature on the use of information and communication technology (ICT) in peacebuilding. Secondly it investigates the concepts of user-generated content (UGC) and social media and provides examples from the Arab spring as to the
use of social media and UGC. Lastly it provides recommendations as to the use of user-generated content and social media in DDR.

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Introduction

“You cannot have [a] Rwanda [genocide] again because information would come out far more quickly and the public opinion would grow to a point were action would need to be taken.”

Gordon Brown, former UK Prime Minister 2009

“The internet can be considered the first weapon of mass construction, which we can deploy to destroy hate and conflict and to propagate peace and democracy.”

There is a growing body of practice and literature on the role of Information and Communication Technologies (ICTs) in preventing and responding to violence. There is also a lot of excitement and corresponding literature about the role of the internet in non-violent change and democratization. The use of mobile phones, social networks such as Facebook and Twitter, and user-generated content (UGC) like blogs and YouTube videos in the protests in Tunisia and Egypt, as well as throughout the wider middle-east and North Africa (MENA) region have shown how ICTs can complement and augment the exercise of our rights to freedom of expression, freedom of association, and freedom of peaceful assembly. The “Arab spring” has in turn provided a plethora of examples on the use of ICTs by protesters and by government during conditions of societal conflict and democratic transformation.

There is much literature and examples on how ICTs can be used by peace practitioners. However the bulk of this literature focuses on the use of ICTs before and during conflict, for example in conflict prevention and early warning. What about the use of ICTs in post-conflict situations; after the negotiation of peace agreements? How can ICTs be used in post-conflict interventions; more specifically in post-conflict peacebuilding and post-conflict reconstruction and recovery? What role of can be played here by social media and user-generated content?

Literature review

The debates that exist on ICT and security often seem to focus on information security, state and corporate security, and the security of internet users, or particular groups of internet users (like for example children), rather than on issues of peace and conflict.

The United Nations World Summit on the Information Society (WSIS) Principles (the Geneva Principles) stated that ICTs should be used in furtherance of development and security. However the focus was largely on preventing uses of ICTs that could be inconsistent with the objectives of maintaining international stability and security. Further, there was little reference as to how ICTs may play a role in promoting peace.\(^6\) There is much more policy debate research and practice in the field of ICT for development (ICT4D) compared to the use of ICT for peace (ICT4Peace). A report by the ICT4Peace foundation found that “while the concept of ICT for Development (ICT4D) has become commonly accepted, the relationship between ICTs and peace remained undefined.” In addition, ICT4D generally does not take into account the role the impact that conflict has on development.\(^7\)

The majority of ICT4Peace discussion, research and practice focus on the role of ICTs in the immediate build-up to, and the immediate aftermath of violent conflict - for example, using crisis mapping tools for violence prevention, reporting of violence, and for humanitarian response.

ICT and conflict prevention

There is more literature on the usage of ICTs in conflict prevention and conflict management, than in post-conflict peacebuilding and post-conflict recovery. A major focus of the literature is on the impact of ICTs on conflict early warning systems. This literature has a short-term view as it focuses on the role of ICT either immediately after, or immediately before incidents of violent conflict. Online mapping, GIS technology, increasing mobile penetration, social networking and the growth of UGC have contributed the growth of a fourth generation of conflict early warning initiative. These “fourth generation initiatives” make use of free and open source software and web technology,\(^8\) utilize web based platforms, and crowdsourcing (sourcing of voluntarily contributed information from a community of users). The crisis mapping platform Ushahidi is an example of a platform often used in fourth generation conflict early warning systems. These systems tend to be people-centered and “are less about advocacy and more about direct, first responder intervention”\(^9\) A report by Search for Common Ground states that “With its focus on

\(^7\) Stauffacher, Drake, Currion and Steinberger, op cit, pp. 1-4.
\(^9\) Ibid.
user-generated information, Ushahidi is designed to be adaptable to SMS, mobile phone usage, and internet posts. While traditional information management systems are typically closed and controlled, Ushahidi is open and decentralized. These technologies allow for empowerment and ownership at the local community level. Unlike other and more traditional systems, Ushahidi closes the feedback loop in such a way that information collected can be communicated directly to those who most need to use it.”

Ushahidi can be used in the context of a community not just for sourcing information to a community (“crowdsourcing”) but also to feed information back to that community (“crowd feeding”).

Crowdsourcing and crowd feeding are greatly complemented by SMS technology. For example, FrontLine SMS is a software that was designed to help NGOs in developing countries improve their communication and increase their capabilities through a simple and cost effective system of SMS. Since its development, FrontlineSMS has been adapted to the needs of peacebuilding to provide election monitoring, to enhance local radio programming, and to continue to improve NGO peacebuilding efforts. For example, the African Great Lakes Initiative has used FrontlineSMS to monitor the elections in Burundi and prevent violence from breaking out. The possibilities for cross collaboration between development and peacebuilding communication initiatives are a vital way for peacebuilding efforts to develop their communication capacities.

Ushahidi itself was originally created to deal with conflict prevention and response (it was first developed for the 2008 Kenyan post-election violence). Fourth Generation conflict and early warning tools like Ushahidi are being used in post-conflict peace-building; however there are few cases at the moment of such use. One example of the use of Ushahidi was by the Liberian peacebuilding office. There is a need to integrate the knowledge and practice on the use of ICTs in conflict prevention with emerging knowledge and practice on the use of ICTs for peacebuilding.

The use of ICTs in post-conflict reconstruction and recovery

ICT has an untapped potential to enhance post-conflict reconstruction processes. As ICT is essential for the management of the state, it should also be a focus for reconstruction. The manner in which technology deployed after conflicts can affect the development of the ICT sector. In Somalia, for example, the state failure and the accompanying lack of regulatory

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12 Search for Common Ground, op cit, pp. 15-16.
14 Ibid.
systems has enabled the creation of one of Africa’s most extensive and resilient cellular telephone systems, accompanied by numerous satellite-based internet access points. The problem now is that none of the numerous telephone networks are compatible, meaning that many Somalis carry multiple handsets – one for each network – and as a result this infrastructure is not adequate to build the national network necessary for sustainable telecommunications development. This also illustrates how ICT4Development is also relevant. Since reconstruction, if successful, should quickly give way to longer-term development that places decision-making in the hands of local authorities and civil society organizations.\(^\text{15}\) Planning and regulation of new network infrastructure is an important challenge to post-conflict governments that may affect the economic development of the country.

Therefore, ICT for Development (ICT4D) is relevant to economic reconstruction and recovery. There are overlaps between ICT4Peace and ICT4D; however ICT4Peace is a separate but complementary sector. “ICT4Peace can learn much from the ICT4Development sector; in turn, ICT4Development actors should be able to gain new insights into their work on conflict-related issues. However ICT4Peace is less advanced and consequently receives less attention and fewer resources.”\(^\text{16}\) There is a large gap in research related to conflict sensitive ICT4D in post-conflict situations.

**The use of ICTs in post-conflict peacebuilding**

The use of ICTs in post-conflict, in particular in peacebuilding is a much talked about but relatively unexplored area for peace practitioners and researchers both in policy debates and in practice. For example, a recent report, entitled “Peacebuilding in the Information Age: Sifting hype from reality” has little actual mention of peacebuilding, and does not at all address post-conflict peacebuilding. ICT4Peace practice and literature has to a large extent been focused on the period of time in the immediate run-up to a conflict, and during the conflict, as well as in its immediate aftermath. Comparatively, there is a lot less literature on the use of ICTs after peace agreements, in the post-conflict phase; that is in using ICTs for post-conflict reconstruction, in building long-term and sustainable peace, and in resolving the root causes of conflict. Literature that does look at ICT and peacebuilding tends to lump peacebuilding with violent prevention, and when it does focus on peacebuilding focuses usually on peacebuilding during open hostilities of conflict and before a peace agreement. The relative lack of focus on ICTs in post-conflict peacebuilding is understandable. Many of the ICTs which may have the potential for use, (e.g. Social Media) are relatively new, and access to ICTs has been and continues to be relatively low in many post-conflict countries. The immediate and instantaneous nature of many ICTs makes them very useful in predicting and responding to conflict in the short run, lots of data, and immediate access to knowledge is however less helpful in the longer term goal of resolving the root causes of conflict.

\(^\text{15}\) Stauffacher, Drake, Currior and Steinberger, Op cit.
\(^\text{16}\) Stauffacher, Drake, Currior and Steinberger, Op cit, p. 55.
Social Media and user-generated content

There exists very small literature on the use of social media and user-generated content in post-conflict peacebuilding. Most of the literature is anecdotal and consists mainly of examples of the use of social media and UGC in peacebuilding during conflicts. With regards to literature on post-conflict peacebuilding, the literature is very limited. There is growing recognition among policymakers and conflict management experts that the media should be a building block of any comprehensive peacebuilding strategy. Yet there are scant guidelines in this regard. Projects are still planned and implemented in a relatively ad-hoc manner, with minimal reference to lessons learned from previous initiatives.\(^17\) Most literature on social media and UGC is by media and communications and information systems scholars, there is not much literature on its use in peacebuilding. In order to investigate the use of UGC and social media, it is very important to first define the concepts involved.

Web 2.0

Social media and UGC are characteristics of what is called Web 2.0 or the “participative web”.\(^18\) Web 2.0 can be seen as a trend or tendency rather than a web epoch. Elements of Web 2.0 have existed since the beginnings of the Internet. On the contemporary web, compared to the situation about a decade ago, is becoming increasingly easier for users to create their own online content, with minimum technical knowledge. The contemporary online ubiquity of blogs, YouTube videos, comments on news articles or blogs, and podcasts all demonstrate this aspect. Subject to computer literacy and access, anyone can be a creator of Internet content. A decade ago, web content was created by corporations and relatively small communities of technical enthusiasts and discussion, participation, and virtual communities used to occur on more arbitrary areas of the Internet. Internet Relay Chat (chat rooms), web forums, multi-user domains, and online games are examples of such content. The participatory aspect of the web is now an everyday reality to many users. When reading the news, internet users can see and rate comments, as well as make comments. Many Internet users interact with overlapping online and offline community over digital social networks like Facebook.

User-generated content

UGC refers to content that is created by Internet users, often through content platforms such as blogspot, WordPress, Twitter, Facebook, Instagram, Wikipedia, and YouTube. UGC includes blog posts, podcasts, online videos, tweets and status updates. There is no exact definition of the term. According to an often cited definition from an OECD report, UGC is content made publicly available over the Internet, involves a “certain amount of creative effort”, and is “created outside of professional routines and practices”.\(^19\) UGC usually created by amateurs,

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\(^{19}\) Sacha Wunsch-Vincent and Graham Vickery, op cit
rather than professionals and is “undertaken without the expectation of remuneration or profit.” Motivating factors for creating UGC include “connecting with peers, achieving a certain level of fame, notoriety or prestige, and self-expression.”

In comparison to traditional media content, UGC development and distribution is neither expensive nor technically complex. Content quality is not guaranteed through traditional media gatekeepers. Content curation (selection of content for publishing and dissemination) is not centralised, as it is with traditional or “old media”. With old media “relative to the potential supply, only a few works are eventually distributed,” while with UGC internet access and computer and web literacy are the only prerequisites for distribution. With regards to UGC, “there are many active creators and a large supply of content that can engage viewers, although of potentially lower or more diverse quality. Users are also inspired by, and build on, existing works as in the traditional media chain. Users select what does and does not work, for example, through recommending and rating, possibly leading to recognition of creators who would not be selected by traditional media publishers.”

**Social media**

Social media involves the confluence of online social networking and user-generated content. It refers in part to the platforms for content generation and consumption: Facebook, Twitter and YouTube are examples of social media. It allows for dissemination of content in a peer-to-peer rather than unidirectional manner such as is done by television, radio, newspapers and some news websites. One can create and share content, as well as participate in online discussions. For example one can create a blog post and then share over social networks, and invite discussion around the content. The media is thus, “social” in the sense that it can be shared, easily disseminated and discussed online. Social Media refers not the content, but to the channels through which content is distributed and consumed. UGC is thus one of the many types of content that is shared or disseminated over social media. Social Media need not be a channel for just UGC; content consumed and shared on social media can of course also be mainstream media, or corporate or organizational media, rather than only UGC. In this sense, social media operates as an amplifier for existing media channels. Many mainstream media outlets, also have social media channels (e.g. Twitter streams or Facebook pages) to amplify the existing dissemination of such content.

**Aggregation and curation**

UGC is not consumed passively and disseminated vertically like old media. UGC, as well as other non-user generated internet content is disseminated through a dynamic and complex ecosystem. Content can be *aggregated* – relevant content is collected by search engines and

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20 Ibid.
21 Ibid.
22 Ibid.
23 Ibid.
automated web platforms that rely on computer algorithms to collect relevant content.

Search engines like Google and Yahoo are examples of *aggregators*, as well as specialised platforms like Google News and Google Reader. Aggregation involves computers selecting content based on keywords, metadata, and natural language processing/semantic analysis that may be relevant to the person looking for them. Aggregation is generally an automated process, whereas the collection and selection of content by humans on the other hand is referred to as *curation*.  

“Curation is not about metadata tags nor does it relate to writing of the algorithms. What it involves is humans and their skill and expertise in carefully sorting, regrouping and displaying content in a way that is appealing to the community it is designed for. Content curation involves presenting contextually relevant content back to a targeted community”.  

In many ways, it is similar to the tasks of a librarian, museum curator, or newspaper. Content that may be relevant to the target audience is actively selected for dissemination. Web 2.0 as well as democratizing content creation has also democratized and decentralized curation. Whereas curation of content used to be done by editors, web users can

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now easily curate content for example through Twitter and Facebook feeds, or with online curation tools such as paper.ly, scoop.it, storify and Flipboard.

One of the most lauded social media websites of 2012 is Pinterest, a platform for curating and sharing images. Curation is touted by many social media experts as “the next big thing” in social media. Yahoo’s recent 1.1 billion USD acquisition of Tumblr shows that investors may also believe this. Tumblr is a blogging platform, but it is also a curation platform, as most posts consist of content selected by users that did not themselves create it. Far more people on the web curate content then create it, and it has been argued that it is something that is done on a daily basis by most social media users.²⁶

Social media allows those who do not create content to be active in its dissemination through the process of curation. In the eco-system of the contemporary web, content is disseminated through a mixture of both aggregation and curation. This ecosystem is conceptualised in Figure 1 above, which should to be taken not as a rigid typology or model, but rather as a suggestion for discussion, and possible modification.

Examples of social media and UGC usage in the “Arab spring”

“Arab spring” countries, with the exception of possibly Libya are not formally post-conflict countries. There are no peace agreements for example in Tunisia, Egypt and Yemen, although transitional arrangements in these countries may be are analogous to peace agreements in that they are a political agreement towards transitions that have avoided or ended conflict. Nonetheless the recent experiences of the use of social media and UGC in the Arab spring can provide some lessons for the use of these technologies in peacebuilding.

The “Arab spring” is still unfolding. Both peaceful protest as well as violence have played a role in the uprisings around the Arab world. To a significant extent, in Tunisia and Egypt, social media and UGC help in facilitating peaceful protests in some instances. For example in Egypt, before the beginning of the January 25th protests, a PDF document was distributed over social networks by protest organizers, spreading the message and tactics of non-violence to be employed in the protests. Twitter and Facebook were used to exchange information about how protestors could protect themselves from tear gas, and how to make ad-hoc body armor from plastic bottles placed underneath outer layers of clothing. Egyptians used social media to organize against sexual harassment and assaults targeted at women on Tahrir square: for example the Twitter account, @TahrirBodyguard and the Twitter hashtags #TahrirBodyguard and #endSH were used for this purpose. Social media as well as an Ushahidi crisis map, Harrassmap were used to report sexual assaults.²⁷

²⁶ Stephanie Buck, “If you use the web you are a curator”, Mashable (blog) 9 May 2013, http://mashable.com/2013/05/09/curator/
Social media and UGC have also been used negatively in the Arab spring. In Tunisia, the Ben Ali regime intercepted and stole the Facebook passwords of protestors and online activists. The UK-German FinFisher spying software, which allows for complete control to be taken over PCs, Macs, Iphones, Android phones and Blackberries – thus enabling the controller to access social media accounts and read emails – was been used in Bahrain to spy on activists, and was also discovered to have been offered to the Mubarak regime. Social media makes it incredibly easy for regimes with the right tools to track activists. Thus, social media and UGC in the Arab spring constituted an uncertain terrain, used both by protestors and by incumbent regimes to crack down on protestors.

Some of the conflicts of the Arab Spring have manifested online. On the one hand there are regime-sponsored hacking teams, like the Syrian Electronic Army and the Sudanese “cyber jihadis”. On the other side seem to be “hacktivists” that are sympathetic to the objectives of the protestors. User-generated content, shared over social media has also been used to incite violence as was witnessed by the protests (some of them violent) in response to the “Innocence of Muslims” YouTube video. While social media can be used to transmit audiovisual material recording violence, for the purposes of advocacy, violence prevention and journalism, UGC footage of graphic violence can also be used to incite further violence. Recently and quite disturbingly footage of a Syrian opposition fighter butchering and eating the heart of a regime soldier has emerged. The fighter has responded by saying that this brutal act was in response to mobile phone footage he found on regime soldiers, in which they had recorded rapes of women.

Social media and UGC can complicate conflicts. Reaction to cyber attacks, hate speech, violence instigation and other such activities over social media can be greatly compounded by the problem of attribution. The relative anonymity provided by the internet can, when used effectively makes it very hard to attribute certain acts to certain actors. In addition to this, there are problems with the veracity and reliability of UGC. Two age-old internet phenomena are quite important here. The first phenomenon is sockpuppetry – the creation of a fake online identity to tell a certain story, or to push a certain point of view. The famous example of this is the story of the lesbian blogger from Syria, which turned out actually to be a married British male. The second phenomenon is astro-turfing which is sockpuppetry on a large scale, entire communities of fake identities can be made to simulate the appearance of grassroots movements. Sockpuppetry has been used for a long time by advertisers and marketers (particularly by big tobacco companies). The confluence however of astroturfing with UGC, social media, and social networks like Facebook, as well as with automated computer programmes and artificial intelligence is quite a worrying development. Astroturfing software has been developed both by corporations as well as by military contractors that can allow for the creation and control of multiple, and gender and culturally contingent online identities that can post across multiple social networks. Although there is little proof of advanced astroturfing

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28 Comninos 2011, op cit.
being used in the Arab spring, sockpuppetry and astroturfing can complicate conflicts under the right conditions and peace practitioners need to be aware of this.

Conclusion

The Wired Magazine editor and many commentators on the Arab spring and other protest movements around the world from 2010 to present believe that the Internet has the power to build peace and democracy. Gordon Brown, for example, believes that our current constellation of information and communication technologies, and the tools they provide, like blogs, Twitter, Facebook, online video sharing, and podcasting have the power to prevent violence. Anecdotes about the Arab spring seem to point to the potential for the use of ICTs for non-violent change. However, there are plenty of anecdotes to argue otherwise. In Rwanda an “old ICT”29, the radio, played a major and rather negative roles in the conflict. Radio was used to threaten and intimidate Tutsis, to encourage Hutus to commit violence against Tutsis, and to coordinate atrocities committed by the interahamwe. Could new ICTs also have been used in a similar manner, were the Rwandan genocide to happen in contemporary social media era? Furthermore, events in the post-election violence in Kenya in 2008 and more recently in India have shown that technologies such as SMS can be used to inflame ethnic tensions and to spread hate speech and orchestrate violence. In the recent Kenyan election, because of this threat there was extensive monitoring of social media channels by authorities and NGOs.

Of course ICTs to help to garner national and international attention about violence, they help to report incidents of violence, and to document a record of such violence: the Ushahidi platform has been used in the last two recent Kenyan elections, in 2008, it was originally developed and used to document the post-election violence, and according to its Swahili name, did serve to present some kind of “testimony” to the events that happened. In the recent Kenyan presidential elections, a much more advanced version of the software was used by a much grander and more complicated organizational infrastructure and collected a lot of data, data that could serve as data for violence prevention also. To a certain extent the sheer attention focused on the elections through social and conventional media may have served to make the situation more peaceful the second time round. However memories of the previous violence, a strong will for peace, regulation of electronic messaging, and a lot of self-regulation and restraint by media companies as well as social media users and contributors also helped.

If for example, and just hypothetically, Kenya, or Syria was to turn into the next Rwandan-scale genocide could ICTs and social media help avoid this? Both countries have significant levels of internet and social media usage, both have a global audience watching them on social media, through diverse tools such as Ushahidi maps. As Gordon Brown suggested, would “information

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29 This paper distinguishes between “old ICTs” – information and communication technologies like television, radio and fixed-line telephones that do not make direct use of the internet and mobile technologies, and “new ICTs” – technologies like the internet, cell phones, computers and mobile phones which make use of the internet and mobile wireless technologies.
would come out far more quickly and the public opinion would grow to a point were action would need to be taken.” Possibly not. The biggest grower of public opinion in response to violent conflict over social media is perhaps the Kony 2012 campaign, allegedly the most viral video of all time. Kony 2012 mobilized a lot of action amongst Youth, mainly in the US and Europe, and at least succeeded in one of its goals of ingraining the infamy of Kony in the global public consciousness. While the Kony 2012 campaign demonstrates the power of social media in influencing public opinion, it also reminds the users the narrow and unpredictable focus that social media can garner.

Social media and user-generated content may also present obstacles to preventing violence and building peace. They can be used in the orchestration of violence, and inciting towards violence. They can be used by spoilers to derail peace processes. They are both a terrain of conflict, and a terrain of cooperation. Nonetheless a lot of thinkers, talkers, and practitioners about information and communication technologies seem to make assumptions that ICTs will inherently be harbingers of peace, and that ICTs will inherently bring solutions. This group of people are referred to as techno-optimists, or cyber-utopians. Evgeny Morozov has referred to this mode of thinking as “internet centrism” the belief that the internet is central to societal, political and economic change, and that it is destined to bring such a change. Morozov also critiques solutionism, which is a focus on using ICTs as solutions, without properly interrogating the problems first (in our example the root causes of conflict). There are of course also many cyberpessimists, amongst policy makers, intellectuals, and practitioners that think ICT will present more, rather than less obstacles in achieving peace and democracy. ICTs provide more avenues for surveillance, for new forms of control (e.g. Internet control through blocking and filtering), and for avenues for starting and stoking conflicts. Both sides of the debate, however, share a similar fallacy – that of technological determinism – that is the belief that the nature of the technologies determines its effect on society. This mode of thinking pays less attention to the social structures in which the technology operates, how they affect the technology themselves, and thus technologies effect on society. This very dominant trend in the study of media and communications has been greatly influenced by the Canadian academic, Marshal McLuhan. Marshal McLuhan in the 60s and 70s coined the term “Global village” to refer to the globalizing effects of modern information and communication technologies. He also introduced a very important tenet to media analysis, that “the medium is the message” that is the form and characteristics of the medium in question, shapes the message to such an extent that it is one of the major messages of the medium. Modern media and communications studies are greatly influenced by this thinking. For example, the internet is by its nature decentralized, participatory, and egalitarian, thus according to many analysts, this is the social message, and thus influence that it broadcasts.

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However, the mere characteristics of certain ICTs cannot mean that they are necessarily tools for peacebuilding, or that they may present challenges to peacebuilding. The use of information and communication technologies for peace is thus not very clear cut. The potential of using ICTs in post-conflict situations depends very much on the local context, and on how ICTs are used and adopted locally. ICTs such as social networks, blogs, YouTube videos and mobile phone applications cannot on their own be applications for violence prevention and peacebuilding. They must be part of a holistic and coherent peacebuilding strategy that is focused on resolving the root causes of conflict, rather than just using ICTs as applications.

**Recommendations for Disarmament, Demobilization and Reintegration**

- There exists a research gap in the use of social media and UGC in post-conflict contexts: The DDR field can benefit from further research into the impact of social media and networking on consolidating DDR outcomes. Pilot programmes in post-conflict areas for testing the impact of social media and networking may help develop new ideas and applications.

- Access to ICTs can create new inequalities and new sources of conflict: ICTs can introduce new “digital divides” based on income, literacy, and ICT literacy. In some contexts, ex-combatants may be relatively less literate than others. Use of social media and UGC in DDR may have the effect of alienating them. There are plenty of examples of ICT4d programmes and other ICT programmes in which stakeholders and community members are given ICTs (e.g. computers and cell phones) in order to partake in projects. Giving ex-combatants cellphones or smart-phones as parts of new DDR programmes may cause resentment and stigmatization of ex-combatants, who already suffer much of this from being recipients of cash and goods, perceived possibly by community members as being rewarded for their time spent in combat. Therefore, it is best to try and leverage production and consumption of UGC through ICTs platforms over which are already in use in the local context.

- Access to Internet and Internet enabled phones, literacy and computer/internet literacy remain a large barrier to the use of social media and UGC in DDR: DDR programmes can utilize SMS and mobile voice calls in such a manner that older generation mobile phones (without Internet access and multimedia) can be used to generate, aggregate, curate and disseminate UGC. UGC platforms can also be integrated with "old" ICTs, such as radio and television. For UGC and social media to be successfully used in DDR technology "blending" of old and new ICTs needs to be used.

- In using social media and UGC in DDR, there will be an important choice. Should one make use of existing platforms, e.g. Facebook and Twitter, or other social networks, and blogging platforms that are used extensively in the target country, or should one create new platforms? There are strengths and weaknesses to both approaches but it is always best to use technologies already in use in the local context.
- When using social media and UGC in peacebuilding, attention must be paid to stimulating the generation of content by stakeholders, the aggregation and curation of relevant content (crowdsourcing), and the dissemination of such content (crowdfeeding) amongst stakeholders.

- DDR programmes need to have data protection and privacy policies. In many post-conflict countries, there is no contemporary data protection and privacy legislation and regulations related to internet and digital personal data, which may serve as guidelines. Data protection and privacy may be a matter of life and death, when users report violence or politically sensitive issues via mobile phones or the Internet. Data protection and privacy, information security, and operational security are also essential for maintaining trust in any ICT platforms that may be used in DDR programmes. DDR programmes need to make use of best practices in information security and data protection.

- Social Media can help augment access to information by citizens and stakeholders. DDR programmes can benefit from social media and networking via mobile phones to augment access to information about DDR and peacebuilding. Social Media and UGC can also be a means of collecting information from stakeholders.

- The practices involved in using ICTs for conflict prevention may be helpful in peacebuilding. For example, crisis mapping and crowdsourcing platforms aimed at conflict prevention may be helpful in post-conflict situations. There needs to be further research into how conflict prevention tools can be used in peacebuilding, as well as how these tools can be deepened to as to address the root causes of conflict.

- While protecting personal and security-sensitive information is important to organisations involved in DDR, certain information should be open, accessible and transparent, as well as shared among organisations and with the public in an efficient manner. The flow of information about political, economic and security issues is essential for peace-building. This data must be shared amongst stakeholders in communities, civil society, government and the private sector. DDR practitioners need to follow contemporary debates about big data in conflict prevention and try to understand how this can be applied in a post-conflict context.

- Programmes utilising social media and UGC will not work without a capacity by all stakeholders to effectively use ICTs. Ex-combatants may often lack ICT literacy sufficient to access and create UGC. Training and capacity building in the use of ICTs is an area that the DDR architects can focus on.

- While UGC and social media may introduce more transparency into the affairs of governments, the operations of belligerents and protesters, this openness can also have negative effects in conflict-affected societies. There is a large amount of social media that may be harmful to peace, for example hate speech, propaganda, or mere misinformation.
Hate speech needs to be regulated in post-conflict societies, as well as in all societies in a manner that protects freedom of association, freedom of access to information and freedom of expression. Regulation on hate speech should not infringe on freedom of speech by censoring content except where absolutely necessary – when there is an imminent threat of violence, and there is a clear relationship between the hate speech and the threat of violence.

- Social Media and UGC can be used in both transforming a conflict to a more peaceful situation, as well as for aggravating a conflict. In this context, DDR programming needs to consider ICT and social media literacy - an understanding as to how to access different sources of information over different media, how to create media messages, but also how to analyze and evaluate them, and to investigate their veracity. Media literacy is essential for long-term peacebuilding, and should be a component of peace education programmes.

- Listening is as important as talking on social media. Listening to social media channels can demonstrably be very useful in violence prevention (for example crisis mapping for violence prevention), but it can also be helpful for post-conflict peacebuilding. Utilising social media and user-generated content for post-conflict peacebuilding does not simply mean making a Facebook or Twitter account for your organization. Social media involves conversation, and listening as well.