

## RESEARCH ARTICLE

# Conceptualising the Web for Post-Conflict Governance Building in Fragile States

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### Abstract

This paper examines how the web is used in contexts of post-conflict governance building in fragile states, how it is conceptualised in those uses and what implications this has. Related academic research in the field mentions the web and other communication technologies only in relation to transnational web use by diasporas. Meanwhile, recent pilot projects conducted by international organisations and others in the related areas of conflict prevention and governance building in developing countries provide invaluable evidence of both the importance of the web in post-conflict settings and the urgent need for a deeper, more critical understanding of these uses. Specifically, multiple and sometimes contradictory conceptualisations of the web are in play, with very different implications for current understanding and future development of the web in post-conflict governance building in fragile states.

**Keywords** Web; Information and Communication Technologies (ICTs); peacebuilding; post-conflict governance building; e-governance; fragile states

### Introduction

If the Internet can provide a canvas upon which nations can paint their social, linguistic, cultural, and political beliefs, then perhaps the physical struggle for safe cultural havens and borders may no longer be as necessary for their preservation or evolution.<sup>1</sup>

This highlights what many have described as the power of information and communication technologies (ICTs) to effect socio-political change. Over time such arguments have addressed the role of new digital technologies in eroding state power - in the early globalisation discourse<sup>2</sup> - with current attention to their part in toppling oppressive regimes, evident in commentary on the so-called Arab Spring.<sup>3</sup> The latter led the United Nations Development Fund (UNDP) to note that events related to the Arab Spring 'have demonstrated the relevance and impact of Information and Communication Technologies (ICTs) on governance and conflict transformation processes'.<sup>4</sup>

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<sup>1</sup> Glenn M. McCormick, 'Stateless Nations: 'I Pledge Allegiance To...?'' in *Information Technology and World Politics*, ed. Michael J. Mazarr (New York: Palgrave MacMillan, 2002), 11-23.

<sup>2</sup> Manuel Castells, *The Rise of the Network Society*, 2<sup>nd</sup> ed. (Oxford: Wiley-Balckwell, 2010); Manuel Castells *Communication Power* (Oxford: Oxford University Press, 2009); Kenichi Ohmae, *The Borderless World* (London: Harper Collins, 1990); Saskia Sassen, *Losing Control? Sovereignty in an Age of Globalisation* (New York: Columbia University Press, 1996); Anthony McGrew and David Held, eds., *Governing Globalization: Power, Authority and Global Governance* (Cambridge: Polity Press, 2002)

<sup>3</sup> Philip N. Howard et al., *Opening Closed Regimes: What Was the Role of Social Media During the Arab Spring?* (Seattle: PIPTI, 2011), <http://pitpi.org/index.php/2011/09/11/opening-closed-regimes-what-was-the-role-of-social-media-during-the-arab-spring/> (accessed September 3, 2013)

Habibul Haque Khondker, 'Role of the New Media in the Arab Spring', *Globalization* 8, no. 5 (2011), 675-679

<sup>4</sup> Francesco Mancini, ed., *New Technology and the Prevention of Violence and Conflict* (New York: International Peace Institute 2013); UNDP, *Issue Brief: Mobile Technology for Conflict Prevention - July 2013*

While these ideas are in the process of being formulated at policy level, little is known about what role the web and ICTs might have in fragile contexts. This paper therefore explores how the web is used in contexts of post-conflict governance building in fragile states, how it is conceptualised in those uses and what implications this has, for both the wider endeavour of governance building and conflict-affected societies. It is important to begin such an exploration with a critical perspective on the impact of technology on socio-political transformations. Indeed initiatives such as Mark Zuckerberg's 'Internet.org' project which 'aims to greatly expand Internet access throughout the developing world'<sup>5</sup> illustrate a perspective that rests on the assumption that technology is somehow inherently progressive and able to solve complex socio-political issues. This is evident in Nobel Prize winner Muhammad Yunus' statement on Zuckerberg's project that '[e]xtending Internet access [...] to the next 5 billion people is key for solving all social problems'.<sup>6</sup> We do not suggest here that the work undertaken using ICTs for development or in conflict situations necessarily rests on these assumptions, but rather that to better understand how technologies are used to affect social changes, it is important to problematize the relationship between the social and the technological. Consequently our approach in this paper is one that aims to move away from technological determinism and where the mutual shaping of technologies and societies is considered.<sup>7</sup> Therefore the focus is not on technological developments that might help 'solve' issues that arise in post-conflict settings (or fail or have failed to do so), but on how both might co-evolve to reinforce or hinder intended outcomes of governance building efforts.

This approach also suggests the need to frame our analysis within existing debates on the mechanisms shaping outcomes of current post-conflict governance building efforts. A full discussion of these debates, essential for future research in this field, falls outside the scope of the present analysis which aims primarily to establish a framework for thinking about the role of the web and ICTs in post-conflict governance building in fragile contexts. We therefore consider two main axes around which outcomes of governance building endeavours have been evaluated in the literature: the tension between external interventions and local legitimacy and tensions between top down and bottom up approaches to governance building.<sup>8</sup> We consider these debates as they touch upon a central dilemma of governance building efforts, the inherent tensions between the needs for effectiveness and legitimacy, both considered crucial for successful governance building.<sup>9</sup> This provides a useful frame of reference and context for the arguments and conclusions presented in this paper, which cannot ignore the normative dimension of the field. Indeed the main argument developed in this paper is that critically assessing how the web is conceptualised in post-conflict

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(New York: UNDP, 2013), <http://www.undp.org/content/undp/en/home/librarypage/crisis-prevention-and-recovery/issue-brief-mobile-technology-for-cpr/> (accessed August 19, 2013)

<sup>5</sup> Alex Fitzpatrick, 'Three Reasons Why Zuckerberg's "Internet for all" Crusade Rings Hollow', *TIME Business and Money*, August 27, 2013, <http://business.time.com/2013/08/27/three-reasons-zuckerbergs-internet-for-all-crusade-rings-hollow/> (accessed on August 28, 2013)

<sup>6</sup> *Ibid.*

<sup>7</sup> Donald McKenzie and Judy Wajcman, ed., *The Social Shaping of Technology*, 2nd ed. (Maidenhead: Open University Press, 1999)

<sup>8</sup> Keith Krause and Oliver Jütersonke, 'Peace, Security and Development in Post-Conflict Environments', *Security Dialogue* 36, no. 4 (2005), 448; Arthur A. Goldsmith, 'Does Nation Building Work? Reviewing the record' in *Governance in Post-Conflict Societies*, 41; Andrew Reynolds, *Designing Democracy in a Dangerous World* (Oxford: Oxford University Press, 2011), 7; Volker Boege et al., 'Building Peace and Political Community in Hybrid Political Orders', *International Peacekeeping* 16, no. 5 (2009), 600; Rama Mani and Jana Krause, 'Democratic Governance' in *Post-Conflict Peacebuilding: A Lexicon* (Oxford: Oxford University Press, 2009), 113; Aliza B. Inbal and Hanna Lerner, 'Constitutional Design, Identity and Legitimacy in Post-Conflict Reconstruction' in *Governance in Post-Conflict Societies*, 45; Sultan Barakat et al., 'Karzai's Curse – Legitimacy as Stability in Afghanistan and Other Post-Conflict Environments', *Policy Studies* 33, no. 5 (September 2012), 439–454; Joshua B. Forrest, 'Subnationalism and post-conflict governance: Lessons from Africa' in *Governance in Post-Conflict Societies*; John Brewer, *Peace Processes: A Sociological Approach* (Cambridge: Polity, 2010); Geneviève Parent, 'Peacebuilding, Healing, Reconciliation: An Analysis of Unseen Connections for Peace', *International Peacekeeping* 18, no. 4 (2011), 379–395

<sup>9</sup> Mani & Krause, 'Democratic Governance'; Reynolds, *Designing Democracy*; Inbal & Lerner 'Constitutional Design', 45

governance building efforts has implications on the contribution it makes to these efforts and can explain some of the consequences that have been observed in cases where the web has been used.

We begin our analysis with a review of the emerging body of literature on the so-called digital diasporas and their impacts on local post-conflict governance building efforts.<sup>10</sup> And whilst this demonstrates a nascent interest in how the web is used in post-conflict settings, it also points to the need to look elsewhere for insights that might contribute to a better understanding of this use. A review of policy documentation and practice covering the policy frameworks of the United Nations (UN), the World Bank, the Organisation for Economic Cooperation and Development (OECD) the US and the UK showcases a variety of different ways the web and its related technologies are used in post-conflict governance building activities. Furthermore it highlights that promising and relevant insights can be found in two emerging and related fields: ICT for conflict prevention and ICT for governance building. These insights are presented in two case studies of projects where the web and web-related technologies were used for conflict prevention in fragile states on the one hand, and for governance building in low-to middle-income countries on the other. They highlight what technologies are used, how they are conceptualised and sketch early analyses on their strengths, weaknesses and potential, which can be extended to post-conflict governance building in fragile states.

Finally combining insights from both the literature and policy review with those obtained from the case studies we critically assess how the web is conceptualised in these cases, delineating from this six main notions of the web for post-conflict governance building in fragile states: the web of (big) data, the web as a management tool, an information sharing tool, an alternative space, an agent of social change and of empowerment, to show complementarities and conflicts among these conceptualisations that should not be ignored both theoretically and in practice. Indeed risks and opportunities arise from the fact that the intentionality associated with one or other conceptualisation of the web in particular projects fails to take into account the features, emergent or designed, associated with the other conceptualisations of the web. We conclude by showing examples from the cases reviewed where that has had significant impact on outcomes. We show that, in governance building efforts, where successful outcomes are ill-defined and have proved rather intangible so far, using technologies such as the Internet and the web can have the potential to effect change, but that this often does not happen in the way it was primarily intended to because there are many ways to conceptualise the web, from both those designing the projects, those implementing them and those supposedly benefiting from them. Success may remain elusive, but a better understanding of the arguments presented in this study would contribute to a clearer understanding of the parameters affecting such outcomes, by laying the foundations for developing more effective conceptual and practical frameworks to understand the complex processes of change unfolding in those contexts.

### **What role for the web in post-conflict governance building in fragile states?**

In her work on digital diasporas, Brinkerhoff takes as her starting point the impacts of information technologies and migration on societies emerging from conflict and notes that 'conventional wisdom holds that IT, especially as it is applied transnationally, poses a threat to nation-states' sovereignty and capacity to govern'.<sup>11</sup> The main argument here is that diasporas, 'immigrants who maintain a connection, psychological or material, to their place of origin',<sup>12</sup> use the web in ways that have an impact on post-conflict governance building in their home countries or regions. Brinkerhoff cites three examples that relate to three aspects of governance previously mentioned: effectiveness, legitimacy and security.<sup>13</sup> The first is the Afghan-American diaspora's contribution to

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<sup>10</sup> Jennifer M. Brinkerhoff, 'Diasporas and conflict societies: conflict entrepreneurs, competing interests or contributors to stability and development?', *Conflict, Security & Development* 11, no. 2 (2011), 115-143; Jennifer M. Brinkerhoff, 'Contributions of the digital diasporas to governance reconstruction in fragile states: potential and promise' in *Governance in Post-Conflict Societies: Rebuilding fragile states* (Abingdon: Routledge, 2007); Simon Turner 'Cyberwars of Words: Expressing the Unspeakable in Burundi's Diaspora', *Journal of Ethnic and Migration Studies* 34, no. 7 (2008), 1161-1180

<sup>11</sup> Brinkerhoff, 'Contributions of the digital diasporas', 185

<sup>12</sup> Brinkerhoff, 'Diasporas and conflict societies', 116

<sup>13</sup> Brinkerhoff, 'Contributions of the digital diasporas', 186

government capacity and service delivery through their use of the web to link diaspora expertise to needs in development projects.<sup>14</sup> The second considers how the Egyptian Copts leverage a range of communication technologies to educate other Egyptian Copts, gather information or expose atrocities and discrimination and thus serving to create accountability mechanisms.<sup>15</sup> The final example of the Somali diaspora illustrates, according to Brinkerhoff, the potential for de-linking ideological disagreements or debates from physical violence by enabling these conversations to occur ‘in cyber space rather than the real world’.<sup>16</sup> This last point is the main subject of Turner’s paper which argues that discussions of a controversial nature happening in cyber space enable some of the reconciliation necessary in conflict-affected societies, in particular those where such discussions have been outlawed.<sup>17</sup> Brinkerhoff finally highlights a number of characteristics of the Internet as an enabler of global, coordinated action that in turn impacts post-conflict governance building efforts on the ground, such as increased access to information beyond specific location, the reconfiguration of networks of communication, the provision of an organisational base that allows for the creation of a sense of identity and solidarity around a shared cultural heritage or specifically framed issues.<sup>18</sup>

There is therefore a sense that some characteristics of the web and its related technologies seem favourable for its use for post-conflict governance building. Indeed the web has been shown to enable the spread of information among interested parties not necessarily present in the conflict-affected region, to help organise and manage support for local projects as well as provide a platform or space in which reconciliation could be facilitated. These arguments have however so far focused on digital diasporas, and wider considerations on the role of the web in fragile contexts has yet to enter academic discourse on a systematic basis.

In order to shed more light on this emerging field, we turn to the policy and practice of post-conflict governance building in fragile states. While many overlaps exist in the work of the actors under consideration, their policies and activities are far from being either homogeneous or coordinated.<sup>19</sup> Therefore examining a broad range of states or organisations active in post-conflict governance building efforts seemed a useful starting point.

Summarising our analysis of over 45 policy documents and project reports on post-conflict governance building, we found some evidence of consideration for the web and other communication technologies. The UK Stabilisation Unit, in a section on ‘strategic communications’, notes that it might be necessary to invest in local communication infrastructure to support the essential objectives of strategic communications in support of stabilisation activities.<sup>20</sup> In its *Guiding Principles*, the US Government stresses the need for an independent and accessible media sector including ‘print, broadcast, or Web-based outlets that serve the public interest by disseminating information to the population about social, economic, and political developments’.<sup>21</sup> The *Principles* then go on to highlight the need to differentiate between media and strategic communications in both conceptual and infrastructure development, in order to maintain legitimacy for local governance actors.<sup>22</sup> Similarly the World Bank stresses the importance of using the web, together with radio and TV, to provide information to the citizens and thus support their right to open information as a prerequisite to effective governance.<sup>23</sup> More emphasis is found on the role of the web and ICTs in the publications and activities of the OECD and the UN. Indeed one OECD report notes that ‘[m]obile phones have a host of applications that are directly relevant to fragile states. They are used for example to seek or share information on agricultural markets, store or transfer money, monitor supply chains to reduce

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<sup>14</sup> Ibid., 192

<sup>15</sup> Ibid., 195

<sup>16</sup> Ibid., 197

<sup>17</sup> Turner, ‘Cyberwars of Words’

<sup>18</sup> Brinkerhoff, ‘Contributions of the digital diasporas’, 189

<sup>19</sup> Nussbaum et al., ‘A new deal’, 561; Krause & Jütersonke, ‘Peace, Security and Development’, 448

<sup>20</sup> UK Stabilisation Unit, *The UK Approach to Stabilisation*, 2008, [http://www.stabilisationunit.gov.uk/resources/Stabilisation\\_guide.pdf](http://www.stabilisationunit.gov.uk/resources/Stabilisation_guide.pdf) (accessed on June 3, 2013), 46

<sup>21</sup> US Institute for Peace, *Guiding Principles*, 123

<sup>22</sup> Ibid., 124

<sup>23</sup> World Bank, *Dealing with Governance and Anticorruption (GAC) Issues in Fragile and Conflict-Affected States: Ten Things Team Leaders Should Know* (Washington: World Bank, 2013), <https://openknowledge.worldbank.org/handle/10986/13227> (accessed June 3, 2013), 17-18

stock loss and corruption. It goes on to note the temptation to use these technologies to 'bypass inefficient governments by directly channelling resources to citizens'.<sup>24</sup>

While the bulk of the UN policy documents on post-conflict governance building in fragile states does not expressly mention the web in that context, two strands of practice stand out within the UNDP as highly relevant to the questions posed in this study: the work on e-governance undertaken within the Democratic Governance bureau, and the work on ICT for conflict prevention undertaken within the Crisis Prevention and Recovery bureau. In a revised version of a March 2013 brief on *Mobile Technology for Conflict Prevention and Recovery* published in July 2013, an introductory note was added stating:

'Emerging social movements, including those witnessed throughout North Africa, the Middle East, and elsewhere in both the North and South, have demonstrated the relevance and impact of Information and Communications Technologies (ICTs) on governance and conflict transformation processes. [...] [T]hrough low cost tech like SMS technology, people's voices are being heard in new ways, creating opportunities to mobilize support at the local and global levels like never before.'<sup>25</sup>

The Issue Briefing then highlights the main characteristics of the technology that 'offer promise' for the UNDP's work on conflict prevention: its speed, affordability and flexibility. The most relevant policy documents thus show the emergence of pilot projects for both governance building in low to middle income countries, rather than conflict-affected areas, and the use of ICTs in conflict prevention. And while they do not directly and comprehensively address the role of ICTs in post-conflict governance building in fragile states, both cases provide relevant insights into some of the considerations central to that field, as shown below.

### The web and conflict prevention

A first related area of practice involving the use of ICTs in fragile contexts is for conflict prevention. The projects featured in this case study were presented in the UNDP's report *New Technology and the Prevention of Violence and Conflict*.<sup>26</sup> In all projects reviewed, conflict prevention was the overall objective with the aim of coordinating engagement from a wider array of sources of information in a timely manner.<sup>27</sup> For example the ICT4 Peace project within Eastern Africa's Conflict Early Warning and Response Mechanism (CEWARN) came about due to a growing realisation that the lack of infrastructure in the region meant that some potential conflict hot spots were up to 400 km away from telecommunication coverage.<sup>28</sup> Information is gathered either from the public by crowdsourcing through various means (social media or SMS), or through trained professionals, as for the ICT 4 Peace project in Kenya<sup>29</sup> or the Blue Nile Participatory Digital Mapping projects which combined the sources.<sup>30</sup> Alerts in relation to any conflict situation are then transmitted to a database via interphased programme (Uwiano platform project in Kenya) or entered manually (Sudan Crisis Mapping and Recovery (CRMA), ICT 4 Peace), but are not acted upon or passed on before being verified by desk clerks. Verification procedures vary from projects, from a phone call to the individual who made an SMS alert for example in the Uwiano platform project,<sup>31</sup> or through a procedure of triangulating

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<sup>24</sup> OECD, *Fragile States 2013: Resource flows and trends in a shifting world*, 2012, <http://www.oecd.org/dac/incaf/resourceflowstofragilestates.htm> (accessed July 24, 2013), 100

<sup>25</sup> UNDP, *Issue Brief*

<sup>26</sup> Francesco Mancini, *New Technology and the Prevention of Violence and Conflict* (New York: International Peace Institute, 2013), <http://www.undp.org/content/undp/en/home/librarypage/crisis-prevention-and-recovery/new-technology-and-the-prevention-of-violence-and-conflict/> (accessed June 3, 2013)

<sup>27</sup> UNDP-Kenya, 'Uwiano Platform: A multi-stakeholder strategy for peaceful elections', <http://www.undp.org/content/kenya/en/home/operations/projects/peacebuilding/uwiano-peace-platform-project/> (accessed August 28, 2013); Godfrey M. Musila, 'Early Warning and the Role of New Technologies in Kenya', in *New Technology*; Helena Puig Larrauri 'New Technologies and Conflict Prevention in Sudan and South Sudan' in *Ibid.*

<sup>28</sup> Musila, 'Early Warning'

<sup>29</sup> *Ibid.*

<sup>30</sup> Puig Larrauri 'New Technologies'

<sup>31</sup> Musila, 'Early Warning'

different sources, as in the Sudan vote monitor project.<sup>32</sup> The information is then stored, passed on, analysed and the data resulting from the alerts might be reused for other purposes, such as the peace messages and other information sent out to every person reporting an incident in the Blue Nile Participatory Digital Mapping project.<sup>33</sup>

According to officials, the use of the Uwiano platform strengthened constructive negotiation and consensus formation among communities in conflict across the country by facilitating dialogues and fostering reconciliation fora in identified hot spots. It built trust among communities and strengthened national and local capacity and coordination of partners in responding to conflict in Kenya.<sup>34</sup>

On the other hand the ICT4 Peace project was widely perceived as a disappointment.<sup>35</sup> The field monitors were not trusted by local communities, which undermined their reporting capabilities, the radios were outdated and thus hard to maintain, and while information gathering sped up, analytical capabilities did not follow, with information taking approximately six months from the time they are entered into the CEWARN reporter to being passed on regionally as appropriate.<sup>36</sup> This shows that the institutional capacity to process the information is as important as the ability to receive the relevant information.

Puig Larrauri criticised the Sudan projects for being ‘technologically driven and short term’, but recognised that they validated the hypothesis of leveraging communication technologies and crowdsourcing activities to monitor possible causes of conflicts.<sup>37</sup>

The main pitfalls identified across all projects related to issues of appropriateness and sustainability of the technology, financially and in terms of time, and existing levels of technological literacy. Authors also commented on the possible negative consequences of nefarious use of the technology, such as intentional misinformation or use of technology to assist in cattle raiding, with the potential to greatly exacerbate conflict.<sup>38</sup>

Moreover project evaluations commented on wider issues to consider, such as the question of ownership of data and whether donors through funding have a right to access data they might be more capable of acting upon than local stakeholders. There was some recognition that security-related information is sensitive and determining openness in this case is not straightforward and carries risks to the reporters themselves either individually or as a perceived threat by local government institutions.<sup>39</sup> Finally there was consensus across all projects that a technology which is not linked or compatible with existing systems and technologies cannot be effective.

### **The web and governance building in developing countries**

Two projects are highlighted in this section, both presented in the UNDP’s report *From Connectivity to Service Delivery: Case studies in e-governance*, the Access to Information (A2I) Programme in Bangladesh and a National Identification System in Cape Verde.<sup>40</sup> The objectives of the projects were framed directly in line with the UNDP’s e-governance framework which links broader ICT access for citizens to greater participation, achievement of the Millennium Development Goals agenda, in particular Goal 8 Target F and enhanced service delivery by the governments. In line with the UNDP’s framework, the rationale behind implementing these projects rests on the perception of ICTs in the context of governance as ‘catalytic enablers’, mainly due to the rapid innovation they are deemed to foster.<sup>41</sup> The aims are to increase efficiency, transparency and accountability of public institutions, enhance information access and provision of basic services to the overall population and

<sup>32</sup> Puig Larrauri ‘New Technologies’

<sup>33</sup> Ibid.

<sup>34</sup> Musila, ‘Early Warning’

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Puig Larrauri, ‘New Technologies’

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

<sup>40</sup> UNDP, *From Connectivity to Service Delivery: Case studies in e-governance* (New York: UNDP, 2013) [http://www.undp.org/content/undp/en/home/librarypage/democratic-governance/access\\_to\\_informationand-e-governance/from-connectivity-to-service-delivery---case-studies-in-e-govern](http://www.undp.org/content/undp/en/home/librarypage/democratic-governance/access_to_informationand-e-governance/from-connectivity-to-service-delivery---case-studies-in-e-govern) (accessed June 20, 2013)

<sup>41</sup> Ibid., 9

promote citizen participation in policy-making processes, particularly among the poor and marginalised.<sup>42</sup>

In both cases the outcomes were deemed mainly positive in the UNDP's report, which cites the computerisation of the electoral lists and electronic identification of voters as having 'increased citizens' confidence in the electoral system' and perhaps a reason why participation in the May 2008 elections was so high.<sup>43</sup> However in the Cape Verde programme, it was highlighted that it was the upper and middle income classes that were targeted by the activities, thus neglecting the 41 percent of the population in the country living on less than \$2 a day.<sup>44</sup> Moreover the success in Bangladesh is mostly assessed in terms of strengthening governmental policy on the use of ICTs rather than on the successful implementation of the programmes (and inter alia the technologies).<sup>45</sup>

### **Conceptualising the web for post-conflict governance building in fragile states**

From the discussion so far, we have described various ways the web is or can be conceptualised for post-conflict governance building in fragile states. In this section we show that this has an impact on its contribution to project outcomes as well as potentially wider consequences. We present six types of empirically-driven conceptualisations, illustrated with, rather than defined by, some of the evidence uncovered so far to capture some foundational ideas for further research in the field.

#### ***Six webs of post-conflict governance building in fragile states***

##### *The web of (big) data*

A first way to conceptualise the web for post-conflict governance building in fragile states is as a way of generating ideally 'actionable' data, both in specific locations as in prevention projects mentioned in the above case study and in the *Fragile States 2013* report,<sup>46</sup> or more generally as what is referred to as 'Big Data'.<sup>47</sup> The latter involves a vast array of literature on Big Data analytics that falls outside the scope of the present paper. However there are commonalities in some of the issues related to data generation, gathering and analysis. A first relates to methodological concerns. The questions are what indicators to use, how to interpret the information, and can be framed within the wider debates on the politics of data.<sup>48</sup> The case of Big Data adds issues of baselining to identify patterns and signals,<sup>49</sup> paying particular attention to the difference between causality and correlation. Indeed Carment asserts that while some perspectives are apt at explaining root causes of conflict for example, the same cannot account for the eruption, scope and level of violence.<sup>50</sup> We can thus conclude that gathering and analysing of data that might eventually become 'actionable' is a delicate undertaking.

A second issue, particularly acute in post-conflict and fragile contexts, is that of access or reach of the platforms and the web in relation to the validity of the findings gained from the data. This might lead to a 'false sense of informed decision making' resulting from the 'non-representativeness of the data' where 'unequal access to technology might reflect conflict fault lines'.<sup>51</sup> This currently puts the objective of getting 'actionable data' into serious question and mitigating efforts, or at the very least a thorough understanding of this caveat in project design and data analysis should be considered.

A third issue, compounded by the previous two, relates to the link between availability of data and the wider political decision-making process. Indeed Mancini notes that 'political decision-making processes are still rarely influenced by existing conflict-prevention and early-warning systems'.<sup>52</sup>

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<sup>42</sup> Ibid., 9

<sup>43</sup> Ibid., 37

<sup>44</sup> Ibid., 38

<sup>45</sup> Ibid., 26

<sup>46</sup> OECD, *Fragile States*

<sup>47</sup> Emmanuel Letouzé et al., 'Big Data for Conflict Prevention: New Oil and Old Fires' in *New Technology*

<sup>48</sup> Susan Halford et al., 'Digital Futures? Sociological Challenges and Opportunities in the Emergent Semantic Web', *Sociology* 47, no. 1 (2013), 173-189

<sup>49</sup> Ibid., 17

<sup>50</sup> David Carment, 'Assessing state failure: Implications for theory and policy', *Third World Quarterly* 24, no. 3 (2003), 407-427

<sup>51</sup> Letouzé et al., 'Big Data', 22

<sup>52</sup> Mancini, *New Technologies*, 2

Carment adds that there exists a 'large analytical gap between academics and practitioners on how to develop and use early warning techniques and methodologies'.<sup>53</sup> So even if 'actionable data' can be generated, there remains to be seen how this influences policy decisions.

A fourth question stems from the sensitive nature of the data, particularly in conflict zones, and relates to a mixture of security, privacy and ownership concerns. Indeed the provision of data on the web can pose a risk to the individual reporting on a particular incident<sup>54</sup> or, if the flows of information are more or less open, it can cause panic or retaliations.<sup>55</sup> Even when these are not open, questions of security or infrastructure integrity might mean that it can be accessed for nefarious intents. And finally even if there is no breach of the data stores, the highly complex governance contexts in post-conflict settings mean that data ownership issues can be intimately related to security concerns.<sup>56</sup> Ultimately this also comes down to what notions of privacy individuals on the ground possess in conflict-affected fragile states, which the available literature on actual projects currently provides no information on.

In relations to the wider literature on post-conflict governance building in fragile states we add a couple of points. For example in terms of the difference between Galtung's positive and negative peace,<sup>57</sup> it would seem useful to understand what the data can and cannot be used for. Prevention projects mentioned in the case studies seem to point toward a shorter-term 'avoidance of conflict' objective, more consistent with the notion of negative peace than the positive one, which is the cornerstone of peacebuilding endeavours. Secondly questions of data ownership can also put the governance building process at risk when they refer to international donor states or organisations which might be better equipped to action the data but would thus result in hindering the legitimisation of local authorities.<sup>58</sup>

#### *The web as a management tool*

Another way to conceptualise the web is as a management tool. It was hinted to in an e-governance case study's example of online diary systems for the police or the SMS alerts on when to go to the market with certain goods.<sup>59</sup> The OECD also identifies the use of the web to 'monitor supply chains to reduce stock loss and corruption'<sup>60</sup> and the UN Secretary-General praised the existence of online rosters to match expertise with local needs.<sup>61</sup> Brinkerhoff also emphasised a similar use of the web by the Afghan-American diaspora in sending experts to complete local projects.<sup>62</sup> The main issue related to the use of the web as a management tool is that it can be used in this way to increase efficiency by all parties in the conflict-affected region or state.<sup>63</sup> In this sense, the management capabilities of the web have the potential to increase efficiency for those engaged in governance building activities, but also those whose activities might represent a threat to stability, intentionally or not. This echoes the many concerns over spoilers and spoiler violence in the wider post-conflict governance building literature.<sup>64</sup> The question of who manages the systems, particularly if this is done by external stakeholders, might also affect the legitimacy of local governance arrangements.

#### *The web as an information sharing tool*

A third conceptualisation of the web is as an information sharing tool, ranging from a purely broadcasting perspective illustrated by the 'strategic communications' tradition prevalent in the World

<sup>53</sup> Carmen, 'Assessing state failure', 407

<sup>54</sup> Puig Larrauri, 'New Technologies'; Musila, 'Early Warning'

<sup>55</sup> Letouzé et al., 'Big Data'

<sup>56</sup> Ibid.

<sup>57</sup> Johan Galtung, *War and Defence: Essays in Peace Research*, Vol. 1, (Copenhagen: Christian Ejlertsen, 1975), 76-108

<sup>58</sup> Musila, 'Early Warning', 54

<sup>59</sup> UNDP *From Connectivity*

<sup>60</sup> OECD *Fragile States*

<sup>61</sup> UN Secretary-General, *Peacebuilding in the aftermath of conflict Report of the Secretary-General* (New York: UN, 2012), [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/67/499](http://www.un.org/ga/search/view_doc.asp?symbol=A/67/499) (accessed June 3, 2013)

<sup>62</sup> Brinkerhoff, 'Contributions of the digital diasporas', 192

<sup>63</sup> Musila, 'Early Warning', 54

<sup>64</sup> Brewer, *Peace Processes*, 33; Boege et al. 'Building Peace', 611; Nussbaum et al., 'A new deal', 566



Bank, UK and US approaches<sup>65</sup> to more innovative crowdsourcing techniques using mobile technologies to inform citizens in emergency relief situations or to share information on agricultural markets for example.<sup>66</sup> It is also evident in the practice of the Egyptian Copts in America who 'leverage a range of communication technologies to educate other Egyptian Copts, gather information or expose atrocities'.<sup>67</sup>

There are several issues identified with this conceptualisation of the web. First as noted by Letouzé et al. sharing information in volatile environments, besides retaliations, can potentially cause panic among the population.<sup>68</sup> Moreover information shared might in fact exacerbate existing tensions and lead to renewed or further conflict, either intentionally if used by so-called spoilers or not. This occurred in Kyrgyzstan during the 2010 election which saw the spread of violence following the upload of YouTube videos.<sup>69</sup> The potentially harmful effects highlighted here may come from the fact that a broadcasting model implying unilateral control of a message is no longer appropriate for the web, in particular with so-called web 2.0 applications such as blogs or YouTube that allow anyone with an internet connection to publish content accessible to any web user. In terms of 'strategic communications', this renders the field a lot more complex and unpredictable, and therefore much riskier in fragile situations.

Moreover the Kyrgyz example also points to a second important issue with the web as an information sharing tool, which concerns the authenticity of the message or information shared. Indeed Matveeva argues that the same YouTube videos were used by both sides of the 2010 conflict to accuse the other of atrocities, and that the footage was in fact of another, earlier conflict.<sup>70</sup> This could affect both the existence of trust within the community and the legitimacy of local authorities. In this sense, the web as an information sharing tool, due to its vast potential, combined with ease of access, use and reach seems the riskiest of all conceptualisations of the web for post-conflict governance building in fragile states. And in fact it is credited with the only policy statement on why new communication technologies might be intentionally excluded for post-conflict reconstruction endeavours, in a paper jointly authored by the UNDP and the World Bank where they state that 'the possible politicization of any more formal, modern communication campaign might introduce other complications into the process' of peacebuilding.<sup>71</sup>

#### *The web as an alternative space*

A fourth way to conceptualise the web in post-conflict governance building is as an alternative space to the physical, geographical space inhabited by the victims and perpetrator of the violence experienced in conflict-affected contexts. This paper opened with McCormick's hypothesis<sup>72</sup> and here the canvas and painting metaphor shows that this view sees the web as more than a platform or a tool allowing information to spread and be shared to a sphere where activity is undertaken and has meaning in and of itself independently from – though not unrelated to – the physical sphere. We avoid a discourse of real versus virtual here as both spheres possess a reality and arguably a physicality of their own. Brinkerhoff and Turner both argue for this conceptualisation of the web in their work on digital diasporas. In the Somalinet.com example Brinkerhoff asserts that 'Somalinet has not eliminated conflict but discussions, even those featuring heavy disagreements, occur in cyber

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<sup>65</sup> Ghazala Mansuri and Vijayendra, Rao, *Localizing Development: Does Participation Work?* (Washington: World Bank, 2013), <https://openknowledge.worldbank.org/handle/10986/11859> (accessed June 3, 2013), 267-274; UK Stabilisation Unit, *The UK Approach*, 46; US Institute for Peace, *Guiding Principles*

<sup>66</sup> OECD, *Fragile States*; Puig Larrauri, 'New Technologies'; UNDP, *Issue Brief*

<sup>67</sup> Brinkerhoff 'Contributions of the digital diasporas', 195

<sup>68</sup> Letouzé et al., 'Big Data', 23

<sup>69</sup> Anna Matveeva, 'Conflict Cure or Curse? Information and Communication Technologies in Kyrgyzstan' in *New Technology*, 63

<sup>70</sup> Ibid., 63

<sup>71</sup> UNDP & The World Bank, *International Support for Capacity Development in Post-Conflict States: reflections from two case studies in West Africa* (New York: UNDP, 2011), [http://www.undp.org/content/dam/undp/library/crisis%20prevention/UNDP-WB\\_Crisis%20Governance\\_Peter%20Morgan\\_Statebuilding.pdf](http://www.undp.org/content/dam/undp/library/crisis%20prevention/UNDP-WB_Crisis%20Governance_Peter%20Morgan_Statebuilding.pdf) (accessed July 27, 2013), 51

<sup>72</sup> McCormick, *Stateless Nations*

space rather than the real world', whereas Turner argues that the web provides a space where the 'unspeakable' can be expressed by the Burundi diaspora.<sup>73</sup>

This perspective seems particularly promising in light of a sociological perspective on post-conflict governance building in fragile states, notably the work of Brewer and Parent.<sup>74</sup> Indeed their argument is that effective post-conflict governance building requires both top down and bottom up approaches involving societal healing and reconciliation. Both authors moreover place emphasis on location and proximity. Brewer focuses his analysis on cases where both sides of a conflict have to share the same space and Parent highlights proximity as an obstacle to healing and reconciliation.<sup>75</sup> Both authors recognise however the possibility of socially constructing notions of space and proximity, and the availability of an alternative arena where victims and perpetrators alike are able to tell their story allows them 'to reconstruct the traumatic memory so that it can be integrated into day-to-day life' thus enabling the development of a more stable and resilient community.<sup>76</sup> In Liberia for example, Michael Best and his team have created a Mobile Story Exchange System that 'allows the sharing of video messages between Liberians throughout the country, despite the presence of little or no communication infrastructure'.<sup>77</sup> So while it is perhaps premature to envisage widespread use of the web in this perspective among all conflict-affected societies, the potential for expansion of this particular type of web from digital diasporas to others is undeniable.

Besides questions of access, the main issues related to this conceptualisation of the web for post-conflict governance building in fragile states involve ideas of anonymity and privacy, data security and possible repercussions from access to the digital traces produced by activities undertaken in this alternative space previously mentioned in the 'web of data' section above.

#### *The web as an agent of social change*

A conceptualisation of the web which is commonplace in academic and policy circles as well as mainstream media is that of the web as an agent of social change. Indeed as noted in our introductory remarks, a lot of the rhetoric on social media and the Arab Spring revolves around this perception. And while UNDP documents, for example, often contain the disclaimer that the technology alone will not bring peace,<sup>78</sup> a high level of agency still seems to be attributed to the web and its related technologies. In the academic literature these arguments are reflected in statements by those who argue that the web is inherently democratic<sup>79</sup> either because of its distributed architecture, or the nature of social web applications where for Froomkin the 'very act of collaboration requires democratic deliberation'.<sup>80</sup>

This perspective is very technologically deterministic, based on the notion that 'a given technology will [or can] produce predictable outcomes'.<sup>81</sup> Indeed most of the pilot projects involving the web or ICTs for either conflict prevention or e-governance were initially based on the idea of

<sup>73</sup> Brinkerhoff, 'Contributions of the digital diasporas', 197; Turner, 'Cyberwars of Words'

<sup>74</sup> Brewer, *Peace Processes*; Parent, 'Peacebuilding, Healing'

<sup>75</sup> Brewer, *Peace Processes*, 19; Parent, 'Peacebuilding, Healing', 386

<sup>76</sup> Parent, *Ibid.*, 382-390

<sup>77</sup> Thomas N. Smyth et al., 'MOSES: Exploring New Ground in Media and Post-Conflict Reconciliation', *CHI EA '10 Proceedings of the 28th of the international conference extended abstracts on Human factors in computing systems*, 2010, <http://mikeb.inta.gatech.edu/uploads/papers/pap0922-smyth.pdf> (accessed 11 February 2011)

<sup>78</sup> UNDP, *Issue Brief*

<sup>79</sup> Eran Fisher, 'E-Governance and E-Democracy' in *The Oxford Handbook of Governance* (Oxford: Oxford University Press, 2012), 573; Michael Froomkin, 'Technologies for democracy' in *Democracy Online: The Prospects for Political Renewal through the Internet* (New York: Routledge, 2004); Beth S. Noveck, 'Unchat: Democratic Solution for a wired world' in *Democracy Online*; Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale University Press, 2006); Viktor Mayer-Shönberger and David Lazer, 'From electronic government to information government' in *Governance and Information Technology: From Electronic Government to Information Government*, eds., Mayer-Shönberger and Lazer, (Cambridge: MIT Press, 2007)

<sup>80</sup> Froomkin, 'Technologies for democracy', 10

<sup>81</sup> Susan Halford et al., 'A Manifesto for Web Science?' (paper presented at the WebSci10: Extending the Frontiers of Society On-Line in Raleigh, US, April 26-27, 2010), 2

introducing a certain technology in a particular context with specific objectives. And the assessments of these project focus on highlighting the existence of a host of wider issues and unintended consequences.<sup>82</sup> One explanation for the discrepancy between intended objectives and perceived outcomes is the fact that the web, perhaps more than any other technology is a socio-technical phenomenon where the technology and wider society constantly evolve in relation to one another.<sup>83</sup> Therefore the view of the web as an agent of social change seems pervasive in tech-enabled projects in fragile or conflict-affected contexts, and as such it is important to understand it and its limitations in greater detail.

#### *The web of empowerment*

Another conceptualisation of the web in contexts of conflicts or fragility is as a tool of empowerment. This is illustrated in the UNDP's e-governance framework where the web is characterised as a catalytic enabler.<sup>84</sup> The OECD highlights various uses of the web such as storing or transferring money or telemedicine, the purpose of which is to empower citizens of fragile states.<sup>85</sup> Moreover Brinkerhoff argues in her analysis of digital diasporas that the Egyptian Copts in America 'leverage a range of communication technologies to educate other Egyptian Copts, gather information or expose atrocities',<sup>86</sup> which also serves to try and influence what Waldman refers to as transnational public opinion to gain support and 'create accountability mechanisms' that potentially have a constraining effects on governments worldwide.<sup>87</sup>

There are many levels of empowerment, and this vision of the web is most prominent in the Arab Spring commentary and the UNDP's e-governance framework,<sup>88</sup> though it seems sometimes unclear who the agency in those cases is afforded to – whether the web itself or the people whose voices can be heard via social media. In this sense the web of empowerment is closely related to the web as an agent of social change. When agency is attributed to the users however it is important to note that this comes with constraints. Beer recognises this, stating that we have had 'little opportunity so far to explore how new forms of power play out in this context of apparent 'empowerment' and 'democratization' the use of the web entails.'<sup>89</sup> And this is important to consider as it might explain the limitations of those objectives. Issues relating to access, and identifying who is empowered and who is not form an important part of those analyses.

#### *Summary and discussion*

In the preceding discussion we have endeavoured to delineate the different conceptualisations of the web at play in current approaches to governance building in fragile states. To draw attention to different conceptualisations is not the same as attributing practical roles or purposes for the technology in individual projects or programmes. Rather from stated intentions and arguments from the literature, policy documents and case studies, we have inferred common assumptions in how the technology is perceived to be playing a role in post-conflict governance building efforts. These assumptions are rarely clearly stated, but rather gleaned from a review of the discourse on policy objectives and project evaluations. Our main argument is that uncovering these assumptions in the form of our proposed conceptualisations is critical to an understanding that the web and ICTs cannot meaningfully be categorised as such. The web is potentially all six conceptualisations at once, though this potential might not always be actualised, in any given situation, for all six types. For example in the Sudan Crisis Mapping and Recovery, Sudan Vote Monitor and Blue Nile Participatory Digital Mapping projects, the web was conceptualised primarily as the web of data in that the combination of

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<sup>82</sup> Mancini, *New Technologies*; UNDP, *From Connectivity*

<sup>83</sup> Ramine Tinati et al., 'Conceptualising a Web of Linked Actors' (paper presented at the ACM WebSci '11, Koblenz, Germany, June 14–17, 2011); Halford et al., 'A Manifesto'

<sup>84</sup> UNDP, *From Connectivity*

<sup>85</sup> OECD, *Fragile States*

<sup>86</sup> Brinkerhoff, 'Contributions of the digital diasporas', 195

<sup>87</sup> Ibid., 195; Thomas Waldman, 'British "Post-Conflict" Operations in Iraq: Into the Heart of Strategic Darkness', *Civil Wars* 9, no. 1(2007), 80

<sup>88</sup> Howard et al., *Opening Closed Regimes*; Khondker, 'Role of the New Media'; UNDP, *From Connectivity*

<sup>89</sup> David Beer, 'Power through the algorithm? Participatory web cultures and the technological unconscious', *New Media & Society* 11, no. 6 (2009), 986

the various online platforms and related technologies aimed at generating and analysing crisis-related information to improve early response decision-making. Implementation of these projects however produced the unintended outcome of strengthening collective deliberations and community building.<sup>90</sup> Two reasons were credited: first the increased sense of engagement people felt from participating in the projects by being able to provide information or directly report, second the ability to receive information derived from the data generated and analysed within the frame of the projects also increased feelings of engagement and trust in the initiatives and wider community.<sup>91</sup> We can thus identify two further types of web at play here – in its empowering form and as an information sharing tool. This raises further questions that could affect the project outcomes and their wider impacts, such as who is empowered – the entire population of the conflict-affected areas or those with mobile phones? Furthermore where such an infrastructure is in place, what are the risks of it being taken over for spreading hate rather than peace messages? This is but a sketch of the ramifications uncovered in this analysis but suffices at the moment to show that an understanding of how in any given scenario each ‘type’ of web might develop in the context of a particular project is highly relevant.

Another, perhaps more critical illustration of this point is the fact that in cases of governance building using the web or mobile technologies, the capacity for data generation and gathering where citizens are ‘empowered’ to conduct online activities is not expressly mentioned or considered. However the digital traces, defined as ‘traces of human actions picked up by digital devices’,<sup>92</sup> resulting from these activities exist and are stored somewhere, and questions relating to their subsequent access and use should at least be considered. A deeper understanding of these conceptualisations, the assumptions and wider issues that accompany them, can thus have direct consequences on outcomes, and potential impacts in the form of unintended consequences. This is highlighted prominently in *New Technology and the Prevention of Violent Conflict*’s concluding remarks which emphasise a requirement to ‘do no harm’<sup>93</sup> precisely for that reason and as such the various conceptualisations of the web and their impact merit closer examination.

## Conclusion

This paper examines how the web is used in contexts of post-conflict governance building in fragile states, how it is conceptualised in those uses and what implications this has, for both the wider endeavour of governance building and conflict-affected societies. We have shown from a review of the academic literature in the field that research in this area is at an embryonic stage. However practical developments in policy circles and pilot projects have demonstrated that interest in the subject is growing fast, notably in two related fields of governance building in low to middle income countries and the use of ICTs for conflict prevention. Both domains are being pioneered by the UNDP and provide useful perspectives that can in turn inform the present research questions in light of the strong conceptual and practical linkages between the fields.

From these detailed descriptions we proposed various ways in which the web and its related technologies were conceptualised. Combining insights from both the literature and policy review with those obtained from the case studies we outlined six major conceptualisations of the web: the web of (big) data, the web as a management tool, an information sharing tool, an alternative space, an agent of social change and as empowerment. Each was associated with specific issues in terms of risks and opportunities for the wider effort of post-conflict governance building, which, the analysis showed, are currently not taken into account in project development or assessments. We show how these overlapping conceptualisations can give rise to both intended and unintended consequences for post-conflict governance building in fragile states, which in light of the normative nature of the endeavour it would seem essential to take into account.

In this sense, this research proposes some foundational considerations for a more effective use of the web in post-conflict settings. Indeed at present, mainly due to the lack of connective infrastructure on the ground, there is a sense in which the web needs to be primarily considered in projects designed to implement a specific use of the technology, for identified purposes. However,

<sup>90</sup> Puig Larrauri, ‘New Technologies’, 79

<sup>91</sup> Ibid.

<sup>92</sup> Letouzé et al., ‘Big Data’, 10

<sup>93</sup> Mancini, *New Technology*, 24, 90; Puig Larrauri, ‘New Technologies’, 85

this paper argues that such a perspective, prevalent in the pilot projects reviewed here, misses the fact that the web and other related communication technologies cannot be either a web of data, or a management tool, or an agent of social change. They are potentially all these things at once. This realisation helps better understand the occurrence of secondary, often unintended consequences and therefore taking it into account earlier in the project phases might improve the chances of a successful outcome. Whether that is a possibility remains uncertain, not least due to the enormous complexity of post-conflict governance building in fragile states. Indeed debates are still unfolding as to what approaches might work best, what normative frameworks need to be applied and when, and what timeframes should be considered to evaluate success or failure. While the task is great, the arguments presented here provide further avenues of research that include the role of the web, which it is plausible to anticipate will become harder to ignore in those contexts. While some might lament that introducing technologies such as the web in already highly complex settings will further obfuscate outcomes, we should not discount the powerful contribution those technologies can make. Neither should we place too much hope on them, but rather try to understand the parameters, scope and limitations of their uses in those highly volatile, fragile environments.

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