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DIGITAL TECHNOLOGIES AND MEDIATION IN ARMED CONFLICT

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At the second meeting of his High-Level Advisory Board on Mediation on 18 June 2018 in Helsinki, United Nations Secretary-General António Guterres tasked the Mediation Support Unit (MSU) in the United Nations Department for Political and Peacebuilding Affairs (UN DPPA) and the Centre for Humanitarian Dialogue (HD) to develop a Toolkit on the role of digital technologies in armed conflict mediation. Over the course of several months, MSU/UN DPPA and HD engaged with a range of mediation experts – through a dedicated survey, consultations and in-person focus group meetings – and desk research carried out to inform the development of the Toolkit. The report represents the outcome of this work. DiploFoundation and swisspeace – key members of the CyberMediation Initiative – also provided important inputs. The work was hosted and supported by the United Nations Office at Geneva (UNOG).

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Introduction

A new and historic record was set in 2018. By the end of the year half of the global population - some 3.9 billion people - was expected to be using the internet. The upward trend in global information and communication technology (ICT) use is set to continue.¹ While most internet users live in developed countries, internet access and use continues to grow in developing countries. Young people (15-24 years) make up 70 percent of users.²

Connectivity will continue to expand in the coming years, bringing radical changes to the way and the environments in which we do things. The field of mediation is no different. To leverage the benefits of digital technologies, mediation experts need to be prepared for these changes in the contexts in which they work.

This report is an attempt to assess the implications of growing connectivity and reliance on digital technologies for what has always been a human-intensive endeavour: the mediation of armed conflicts. It will inform and accompany the development of a Toolkit for mediators. The objective of this work is to: (i) raise awareness among mediation practitioners of the implications of digital technology use in mediation contexts; (ii) promote ongoing reflection and discussion on the topic; (iii) provide mediators with concrete examples and practical information on digital technologies; and (iv) establish a community of practice to exchange information and experiences, including on how to integrate digital technologies into mediation strategies.

The report also showcases the manifold opportunities that digital technologies offer to mediators and their teams to support their work. It focuses on four thematic areas: (1) conflict analysis; (2) engagement with conflict parties; (3) inclusivity; and (4) strategic communications.

While significant opportunities are discerned, the integration of digital technologies into the conflict management and mediation toolbox also requires a risk management approach guided by the 'do no harm' principle. The report therefore proposes a few essential practices that can support, strengthen and protect mediation work in increasingly connected environments. These practices can also help mediators understand the interaction of digital technologies in the conflict environment and reduce the risk of inadvertently causing harm to the mediation effort and the actors with whom they engage. These practices include:

- Digital literacy: developing basic ICT skills and concepts to understand the digital ecosystem, the technologies and their uses, as well as associated threats and risks;
- Digital safety and security: understanding and applying basic information security and assurance, privacy and data protections; and
- Planning and resources: understanding human, technical and budgetary requirements and integrating them into planning.

This approach should provide a basis for an informed and compelling dialogue between mediation practitioners, technology experts, policy makers and the owners of products and services on which mediators and their teams rely.

¹ [ITU Global and Regional Data](#), 2018 Statistics.

² [ITU Facts and Figures](#), 2017.

Conflict, Mediation and Digital Technologies

The [UN Guidance for Effective Mediation](#) defines mediation as a process whereby a third party assists two or more parties, with their consent, to reach mutually acceptable agreements.³ Mediation is identified in Chapter VI of the [Charter of the United Nations](#) as one of several means for the peaceful settlement of disputes.⁴ It has long been regarded as an effective means to prevent, manage or resolve inter- or intra-State armed conflicts.

In this report, digital technologies are defined as electronic equipment and applications that are used to find, analyse, create, communicate, disseminate and use information. The technologies have an important influence on the way we communicate and work. While often deemed 'revolutionary' due to their 'velocity, scope and systems impact',⁵ they do not in themselves bring revolutionary change to the practice of mediation, which remains a human-intensive endeavour. Yet, if leveraged properly, some of the technologies can bring significant efficiencies and opportunities to the mediation effort and expand possibilities for the mediator's ability to understand the nature of a conflict and the shifting dynamics of a negotiation and to engage with the conflict parties.

Undoubtedly, the character of conflict today is changing, further complicating the practice of mediation. While the number of state-based conflicts is on the decline, in recent years the number of non-state conflicts (principally civil wars) has increased (from 62 in 2016 to 82 in 2017).⁶ Such conflicts, on average, are highly fragmented and involve multiple internal and external actors. They last longer, are more intractable and less conducive to traditional political settlements. Digital technologies are increasingly relevant in such contexts. Their low-barrier access and the volume and speed of information flows allow numerous actors to engage in the war effort alongside conflict parties further contributing to the complexity and fragmentation of conflict.⁷

Moreover, digital technologies are largely dual use: in addition to immense efficiencies and opportunities they also carry substantial risk, meaning that they can be used by all parties to a conflict and a mediation process for radically different purposes.

³ United Nations Guidance on Effective Mediation. United Nations, September 2012.

⁴ More specifically, [Article 33 of the UN Charter](#) states that "The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice".

⁵ K. Schwab (2017). The Fourth Industrial Revolution, Currency.

⁶ PRIO [Trends in Armed Conflict Project](#), 2017.

⁷ For a discussion on the changes in the mediation environment, see, for example, [United Nations Secretary General's Report on Activities in Support of Mediation](#), June 2017.

Common features of conflict today include data breaches; information leaks and other breaches of confidentiality; monitoring and surveillance, including for targeting purposes; internet shutdowns; disruptive information flows such as misinformation and disinformation; competition for control of critical internet resources; and infrastructure sabotage or disruption. Some of these uses can lead to the escalation of tensions between parties and are increasingly viewed as contributing to the intractability or deepening of ongoing conflicts. For instance, the rapid relaying of unverified information on a ceasefire violation can raise expectations of a response and contribute to conflict escalation. Meanwhile, the ease with which confidential contacts are shared on social media can, in some circumstances, hamper the ability of a mediator or facilitator to engage with parties to the conflict through the kind of low-key interaction needed to assist opponents in finding solutions to their grievances.⁸ This reality presents important challenges to conflict management in general and to mediation in particular.

Consequently, mediation practitioners have a responsibility to understand the opportunities and risks associated with the digital technologies used in conflict settings. These opportunities and risks are particularly apparent in the four thematic areas relevant to mediation which are the focus of this paper: (1) conflict analysis; (2) engagement with conflict parties; (3) inclusivity; and (4) strategic communications.

As a guiding rule, the mediation strategy should always determine which technologies are used. A risk management mindset guided by the 'do no harm' principle can help decide which technologies should be used how, when, where and why during the different phases of a mediation process, and should be informed by the following:

Digital Literacy

Understanding basic information and communication technology (ICT) skills and concepts is an additional, and increasingly crucial, aspect of mediation work. Mediators and their teams need to develop skills to understand the digital ecosystem of a mediation environment and include related factors in their analysis (for instance, the national information technology (IT) infrastructure, including access to critical internet and electricity resources; user data such as age, gender, language and literacy); as well as current and prospective digital technologies used by conflict parties and other relevant actors.

Digital Security and Safety

Basic digital security skills and concepts should be integrated into mediation efforts. This requires careful consideration of information security and privacy issues, including when risk is assumed by the conflict parties in their own choices of digital tools. Mediators and their teams need to be keenly aware of the vulnerabilities and risks associated with certain applications – including encrypted applications – and the data storage policies and privacy practices of the owners of the tools and applications they use. This can be achieved by developing basic threat models to assess risk, conducting cost-benefit analysis, practising basic cyber hygiene and by learning from existing practice. Mediators should also ensure that they (or their organization) are operating in line with current data protection policy and privacy requirements.⁹

Planning and Resources

Mediators and their teams need to adapt their planning and budgeting processes to support the uptake and use of digital technologies in a mediation effort. This might include integrating new capacities and skills in the mediation team, as well as new costs associated with managing security and safety risks.

⁸ Ibid.

⁹ Many organizations would need to consider new requirements under the [EU General Data Protection Regulation \(GDPR\)](#). The UN, for its part, has developed a new set of [Principles on Personal Data Protection and Privacy](#) which lay out a basic framework for the processing of personal data by, or on behalf of, the United Nations System Organizations in carrying out their mandated activities.



MANAGING RISK: A SAMPLE OF ENABLING POLICIES & TOOLS

Digitisation of work processes and functions adds new dimensions to traditional challenges such as protecting the confidentiality, integrity and accessibility of the information collected by mediators. Inherent vulnerabilities in the technologies mean that using or depending on them also carries significant risk. These risks are already evident in non-conflict settings and become highly accentuated in conflict settings where normative and operational restraint is largely absent. Mediators and their teams can take a number of approaches to manage ICT-related risk and better leverage the opportunities inherent in the technologies. Overly restrictive policies could hamper a mediator's ability to manoeuvre.

Examples of existing policies or guidance include:

UN information management/digital safety policies

UN staff members are guided by a number of policies relating to information management, [social media use](#), including the recently issued "[UN Secretariat Guidelines for the Personal use of Social Media](#)",⁸ and digital safety. They can, for instance, access the [OICT Do's and Don'ts Policy](#).

Electronic Frontier Foundation guide to threat modelling

Modelling can help identify the digital attacks to which a system might be vulnerable. Models such as the one presented in the [EFF Guide](#) can help inform decision-making around responses to digital risk. Assessments of risk need to be adapted to context and circumstances on the ground and continuously updated to take account of the fact that technological capabilities are rapidly evolving.

SecDev's Cybersar

The SecDev Foundation's [CyberSar](#) (Cyber Safety Assessment and Response) works to improve the digital safety of civil society and independent media organizations in the Eurasian region. The project integrates a practical approach that helps smaller organizations to understand their own digital risk and develop core practices to protect their data and operations online. The project also provides short-term digital safety training and digital assistance clinics for civil society organizations.

Access Now's Digital Security Helpline

Access Now's [Digital Security Helpline](#) works with individuals and organizations around the world to keep them safe online and provides advice on how to improve digital security practices to keep out of harm's way. The organization also provides rapid-response emergency assistance.

Google Jigsaw Projects

Through projects such as [Project Shield](#), [Password Alert](#), and [Digital Attack Map](#), [Google Jigsaw](#) works with organizations and activists across the world to enhance safety and security, protect activists and journalists and raise awareness around emerging threats.

Center For Digital Resilience

The [Center for Digital Resilience](#) works with digital security experts, technologists, and human rights activists to create projects on digital security for civil society groups and high-risk communities around the globe.

International Committee Of The Red Cross (ICRC)

ICRC's reports on humanitarian issues and digital technologies provide important guidance on managing risk. For instance, its report [Humanitarian Futures for Messaging Apps](#) outlines the current and potential uses in humanitarian situations of messaging applications such as Facebook Messenger, WhatsApp and Snapchat. It focuses on responsible, effective and safe ways to use messaging applications to meet the needs of people affected by armed conflict. [The Humanitarian Metadata Problem: Doing No Harm in the Digital Era](#), a joint report by ICRC and Privacy International, also provides valuable guidance on "develop[ing] and implement[ing] appropriate data protection standards, including robust risk assessments" in order to ensure that the use of new technologies "does not result in harm". While specifically directed at humanitarian actors, its guidance is equally applicable to the mediation field.

Digital Technologies Relevant for Mediation

At present, the digital technologies and related tools and techniques most used in mediation include social media, geographic information systems and data analytics. Some of these technologies and their uses overlap or converge. A survey conducted to inform this report and the Toolkit¹⁰ found that there are significant expectations of the potential of other technologies, such as Virtual Reality, Blockchain technologies or certain sub-fields of Artificial Intelligence (AI) such as machine learning for conflict prevention and mediation. Adoption of these technologies will likely be slow to materialise due in large part to their complexity as well as the challenges of applying them to this field.

Social Media

Social media is an umbrella term for a variety of interactive applications that allow users to create content (text, photos, videos) and share ideas with each other through an online community. Users engage with social media on their computers, tablets or smartphones via web-based software or applications.

The tools most referred to in the survey and in consultations with mediation experts include social media platforms such as [Facebook](#), [Flickr](#), [Instagram](#), [LinkedIn](#), [SnapChat](#), [Twitter](#), and instant messaging apps such as [Signal](#), [Telegram](#), [Viber](#), and [WhatsApp](#). Facebook and Twitter are reportedly the social media platforms most commonly used by mediators and their teams and WhatsApp the most commonly used instant messaging application.

Mediators and their teams can use different social media tools and applications to support analysis, strengthen channels for engaging with conflict parties, foster greater inclusivity and strengthen public communications strategies.¹¹ Social media use can, however, undermine each of these if not understood and managed properly. Indeed, conflicts are often exacerbated through social media interactions involving a wide range of actors, some of whom might not necessarily even have a stake in the conflict.

Currently, one of the most significant challenges mediators face is managing the volume, variety and velocity of information on social media, and the implications of so-called 'fake news' and hate speech for the mediation effort.

¹⁰ The survey was designed by UN DPPA and HD and implemented in October 2018.

¹¹ See, for example D. Lanz and A. Eleiba (2018). [The Good, the Bad and the Ugly: Social Media and Peace Mediation](#). swisspeace.



MISINFORMATION AND DISINFORMATION

It is more accurate to use the terms ‘misinformation’ and ‘disinformation’ than the term ‘fake news’. Misinformation refers to false information provided without ill-intent. It might be shared by someone who, without meaning any harm, believes the information to be true. Disinformation refers to false information shared with the specific aim of causing harm or with the specific intention of deceiving for malicious purposes.



TROLLS AND BOTS

Many bots are entirely legitimate, publishing headlines and links to news stories. Twitter bots are the most commonly known type of bot, and are described as “autonomous software systems that send messages of their own composition into the Twittersphere”.¹² Others are programmed with malicious intent to produce spam or provide fake followers for anybody willing to pay, and can be used to manipulate debates and public opinion in insidious ways that are hard to track and prevent. The effects of large swarms of malicious Twitter bots (so-called botnets) are still largely unknown.¹³

Trolls have been identified as a key challenge across the globe. They can take varying forms, but the concept is simple: an individual or a group of people, often assuming false identities, use social media or other interactive platforms to send — or suppress — a specific message. They use the internet to disseminate misinformation and disinformation, and use tactics such as retweeting or commenting on each other’s posts, with the aim of creating the semblance of a dominant and broadly accepted narrative or exacerbating existing divisions. Of greater concern are so-called ‘troll armies’, established for explicit political purposes.

Sources: [Access Now](#); [MIT Technology Review](#).



“Bots are often used by spoilers to amplify negative messages and sow divisions. Should we consider creating ‘peace bots’ to counter negative narratives with a message of peace?”

Source: Participant in swisspeace workshop on social media. Geneva, July 2018

¹² T. Veale and M.Cooke (2018), *Twitterbots: Making Machines that Make Meaning*. MIT Press; See also [First Evidence That Social Bots Play a Major Role in Spreading Fake News](#), MIT Technology Review, (August, 2017).

¹³ See, for example: [Cybersecurity Experts Uncover Dormant Botnet of 350,000 Twitter Accounts](#). (January 2017) MIT Technology Review.

Geographic Information Systems (GIS)

Geographic Information Systems are digital tools that store, analyse and visualise information in map format. The data is collected via satellite imagery and triangulated with data collected from other sources. Although GIS technologies are not new, advances in the technology provide further opportunities for peacemaking, mapping security realities on the ground, building confidence between the parties and for dispute resolution. GIS can, for example, be leveraged by mediators and their teams to provide geographical information – real-time or historic – on specific locations and how they are affected by the situation on the ground, ongoing fighting, as well as movements of populations. They can help focus attention on specific population groups such as women or marginalised groups. They can also be used to monitor security arrangements or ceasefire agreements, and they provide an important means for building confidence between conflict parties. For instance, they can counter misinformation or disinformation around troop movements that might otherwise derail a fragile peace.

A number of international organizations, including the United Nations, have significant map and GIS resources at their disposal – for instance, the [UN Geospatial Information Section's \(UN GIS\)](#) general, mission and thematic maps as well as spatial and imagery analysis, [OCHA's Relief Web Maps](#), or [UNOSAT's](#) imagery analysis and satellite solutions. For smaller non-governmental organizations working in the field of mediation and conflict prevention, access costs have limited the use of GIS resources, although the technology is increasingly accessible today. However, drawing from some of the extensive [crisis mapping resources](#) developed in the humanitarian field, numerous open-source and crowd-sourced tools such as [Airbus Defence and Space](#), [Global Incident Map](#), [Jane's Satellite Imagery Analysis](#), [Liveuamap](#), [MDA Geospatial Services](#), and [Ushahidi](#) provide important low-cost alternatives.



MapX

[MapX](#) was developed by UN Environment, the World Bank and the Global Resource Information Database (GRID-Geneva) to capitalize on the use of new digital technologies and cloud computing in the sustainable management of natural resources. One of the founding principles was to equalize information held by different stakeholders as a prerequisite to better dialogue, decision making and monitoring. MapX evolved from an initial focus on extractive resources to include a range of different resource types and themes.

Data Analytics

Data analytics technologies and techniques are currently employed in humanitarian, development and peacebuilding contexts.¹⁴ They are used to a lesser extent in the context of ongoing mediation efforts; mediation practitioners have expressed much interest in understanding their potential.

¹⁴ [Gender Equality and Big Data](#) (2018). UN Women; [Guidance for Incorporating Big Data into Humanitarian Operations; Big Data for Development: Challenges & Opportunities](#) (2012).

The term ‘data analytics’ refers to the complex process of analysing large volumes of data, or ‘big data’, and identifying hidden and consistent patterns, correlations and other insights. Different technologies and techniques are used to gather the data from a wide variety of digital sources.

In conflict contexts, data analytics is largely used for the purpose of conflict analysis, early warning, prediction of conflict and perception or sentiment analysis. Like GIS, data analytics can also be used to monitor and verify developments on the ground, build confidence between the parties, and inform strategic communications strategies.

Data analytics is a complicated analytical process that mediators and their teams must handle carefully, as outcomes depend heavily on the quality (and quantity) of the data processed and can be shaped by the cognitive and social biases underlying the programming of algorithms.¹⁵ This means that the values of the humans programming the algorithms are mirrored in the data they collect and select and how they prepare and train the algorithms.

Data analytics tools mentioned during the consultations and by respondents to the MSU-HD survey and currently used in mediation contexts include [Crimson Hexagon](#), [Crowdtangle](#), [DataminR](#), [Europe Media Monitor](#), [Factr](#), [Google Analytics](#), [Hootsuite](#), [Storyful](#), [Sysomos](#), [Talkwalker](#) and [Twitterfall](#).



UNDP’S INTERNAL CRISIS RISK DASHBOARD (CRD) PLATFORM ONLINE

The Crisis Risk Dashboard is a dynamic tool that supports effective monitoring and understanding of contextual risks. It provides an evidence base to inform key decisions by UNDP and the broader UN system. The CRD facilitates regular data gathering and management, and subsequently visualizes information to communicate insights on the nature and potential impact of crisis-related risks. The CRD is a platform developed and managed by [UNDP’s Crisis Response Unit](#).

Machine Learning

Machine learning is one of many subfields of Artificial Intelligence with potential opportunities for the field of conflict management. It refers to a method whereby humans feed an algorithmic model extremely large data sets (such as facial images), enabling the machine to learn to discern patterns, correlations and so forth. A key output of machine learning is to generate predictions about which humans will do what and when. These kinds of models are already used in a number of critical applications such as data mining (looking for patterns in vast amounts of data) and data analytics, natural language processing, language and image recognition and expert systems. More advanced and layered ‘deep learning’ methods model the neural processes of human brains, although with considerable abstraction and simplification. These models often underpin speech recognition systems or the highly complex logistics of global supply chains.

For mediators and their teams, machine learning has the potential to increase efficiency by making analytical processes faster, smarter, and cheaper and generate predictions of behaviour that might be useful to a mediation process. However, the risks and challenges of using these AI

¹⁵ [Big Data for Peace and Security](#) (2018). United Nations Peace Building Support Office (PBSO) and Columbia University School of International and Public Affairs (SIPA).

applications in such contexts are significant. Significant resources are required to train machine learning programmes (data, human, financial). The data that machines are fed can reinforce or amplify existing cognitive and social biases and promote or engender discrimination towards traditionally-excluded groups and vulnerable communities.¹⁶ Context and technical experts (e.g., human rights lawyers, sociologists, anthropologists, linguists, computer and data scientists) would be required to correct and adjust the machine learning process and contribute their knowledge and analysis to improve accuracy.¹⁷ Moreover, these systems do not know how to integrate the abstract knowledge and rational thinking required of a mediator to make informed decisions. Any use of machine learning and more complex systems in mediation contexts - for example for predictive purposes - would likely require the agreement of the conflict parties on the models used as a basis.



UN DPPA MIDDLE EAST DIVISION'S SENTIMENT PROJECT AND DIGITAL FOCUS GROUPS

Since 2018, DPPA's Middle East Division (MED) has been working with a consortium of universities and computational linguist experts on building a machine learning-based system for detecting and analyzing public opinion in the Arab world. The project focuses on opinion mining and sentiment analysis based on various social media sources. It expands situational awareness and allows for early warning in peace mediation processes.

Building on this Arabic Sentiment Project, the MED is also working with a technology company on the creation of a tool to conduct digital focus groups. The tool uses machine learning to probe questions on a peace process with a larger constituency in Arabic dialects. If a UN mediation team wished to evaluate the public's receptivity to an aspect of a peace agreement, this tool would allow thousands of members of a concerned constituency in a country and its diaspora (e.g., refugees) to be consulted in real time. The UN could eventually, instantly and on behalf of the conflict parties, test different aspects of the prospective agreement under negotiation and expand the inclusivity of peace negotiations.

Source: UN DPPA Middle East Division

Looking ahead, mediators will need to develop an understanding of how conflict parties, particularly States, might use AI systems for political and military purposes and the implications of such use for mediation processes.¹⁸

Virtual Reality

Virtual Reality (VR) is defined as a "realistic three-dimensional image or artificial environment that is created with a mixture of interactive hardware and software, and presented to the user in such a way that it is perceived as a real environment to interact with in a seemingly real or

¹⁶ See, for instance, Diplo Foundation (2019), [Mapping the challenges and opportunities of artificial intelligence for the conduct of diplomacy](#).

¹⁷ Ibid.; See also Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression. June 2018. [A/HRC/38/35](#)

¹⁸ For a discussion on AI in strategic and tactical terms, see K. Payne (October-November 2018). Artificial Intelligence: A Revolution in Military Affairs?. *Survival: Global Politics and Strategy*. Vol.60:5 (pp.7-32). IISS.

physical way”.¹⁹ VR technologies are high-tech headsets that deliver 3-Dimensional images. Its high-speed, 360° tracking technology helps transport viewers into otherwise inaccessible settings.

VR could serve as a powerful tool for engaging parties through visual narratives that illustrate conflict resolution priorities and the urgency of delivering them. VR technologies allow viewers to immerse themselves (to different degrees, depending on the VR technology) in the reality that conflict victims experience on a daily basis. They help transport participants into the lives of other communities to increase awareness and understanding “of shared interests and commonalities, serving as a basis for personal interactions”.²⁰ Recent research discusses how VR might potentially be used to foster ‘perspective taking’ in order to cultivate empathy between conflict parties.²¹ As is the case with most new technologies, the full impact of virtual reality and related technologies is yet unknown. Ongoing studies into how VR affects brain function continue as do studies on the social implications of VR and its use in the field of conflict management.²²

Blockchain Technologies

Blockchain technology can be simply defined as “a decentralized database, which stores a registry (or ledger) of assets and transactions across a peer-to-peer network”.²³ The technology is not centrally controlled. Instead, all transaction history is stored in blocks of data that are cryptographically locked together. As it is replicated on every computer that belongs to the network, blockchain “is an immutable, secure, and transparent record of all transactions”.²⁴

Blockchain technologies are mostly known for their application to the world of cryptocurrencies and the transfer of financial value (for instance, Bitcoin or Ethereum). Some companies are adapting blockchain technologies for use in secure online legal and dispute resolution services (by layering smart contracts on top of the technology), while others are promoting their use as a secure means to record votes during elections and enhance auditability. Humanitarian practitioners, too, are beginning to look at how Blockchain technologies can be applied to information management, identification, supply chain tracking, cash programming and humanitarian financing.²⁵

In the future, blockchain technologies could provide a more secure and trusted means for mediation teams to manage and exchange information relevant to a mediation process, as well as for the implementation of peace agreements.²⁶ However, the technology remains highly complex to design and use, and difficult to apply in highly politicized processes such as mediation.

¹⁹ Defining [Virtuality Reality](#). Reality Technologies.

²⁰ C. Milner (2016), *Virtual Reality Conflict Transformation: Theory and Practice*. TFM.

²¹ M. Rubin and B. Hasler (2018). *Through Other’s Eyes: How VR Can Transform Diplomacy*. The Arena; B. Hassler. *Virtual Peacemakers: Mimicry Increases Empathy in Simulated Contact with Virtual Outgroup Members*. *Cyberpsychology, Behavior and Social Networking*. Vol.17:12.

²² Ibid. See also, D. Boddington (2017), *Virtual Reality: Recognising the Risks*. Science Focus.

²³ A. Zwitter and M. Boisse-Despiaux (2018), [Blockchain for humanitarian action and development aid](#). *Journal of International Humanitarian Action* 2018 3:16.

²⁴ Ibid.

²⁵ These uses are not risk-free. For instance, there is an ongoing debate around the use of Blockchain technologies in elections, particularly with regard to voter confidentiality and infrastructure vulnerabilities. See, for instance, [the list of concerns](#) raised by Princeton Cryptography professor Matthew Green with regard to the use of Blockchain in the US elections.

²⁶ See, for instance, the Diplo Foundation Webinar [What Role for Blockchain and Artificial Intelligence](#). 12 October 2018.

The Practical Application of Digital Technologies in Mediation

The following section provides an insight into some of the digital technologies that are currently being used by mediators and the associated benefits and risks in the four thematic areas already highlighted above: (1) conflict analysis; (2) engagement with conflict parties; (3) inclusion strategies; and (4) communications strategies.

1. Conflict Analysis

The [UN Guidance for Effective Mediation](#) stresses the importance of preparation in order for mediation efforts to be effective and credible. This includes developing mediation strategies on the basis of comprehensive conflict analysis and stakeholder mapping. Knowing and understanding the context within which parties to a conflict are operating is key. Digital technologies play a double role in conflict analysis, influencing both the conduct and the content of analysis. Familiarity with the tools and techniques that can support conflict analysis in a mediation setting – as well as the resources required to use and sustain them - is fundamental as we move forward. So too will be a keen awareness of the friction and harm digital technologies can engender.



“The nature of politics has undergone fundamental change with the emergence of digital technologies and how they are harnessed in the political arena. A significant body of political discourse is now conducted through digital technologies. News and political developments are often driven by developments on platforms such as Twitter. (...) Without a structured and timely social media monitoring system and resources, our ability to conduct analysis would be seriously impaired”.

Source: Survey conducted by UN DPPA and HD


Opportunities and Risks

The conduct of analysis - Currently, the tools most prominently used by mediation teams to support or conduct conflict analysis include automated or manual social media analytics (although the latter is the most prevalent); text mining programs; customizable news feeds; and GIS tools, including satellite imagery and digital maps (created from crowd-sourcing, specific or multiple source data sets). In some contexts, data analytics tools or dashboards, which include or draw content from some of the latter, are used. These include tools such as [Crimson Hexagon](#), [DataminR](#), [Factr](#), [Google Analytics](#), [Hootsuite](#), [Sysomos](#) and [Talkwalker](#). Significant lessons could also be derived from the UN system’s work in the area of crisis information management, supported by the ICT4Peace Foundation²⁷.

²⁷ See, for instance, [UN Crisis Information Management Stocktaking Exercise](#), 2017-2018.

Digital technologies increasingly influence how conflict analysis is conducted. The volume, variety and velocity with which new digital tools can be programmed to gather information, as well as the generally low-cost access to open source data in different languages, provide mediators and their teams with real-time information. Some of the tools can provide different search options, for instance by date, theme, event or actor. Some are used for predictive analysis. Others involve different actors in the process of data collection, so-called participatory analysis, to better understand the perspectives of conflict stakeholders and ensure their views are integrated in the analysis.²⁸

With the right tools, resources and expertise, data derived from digital sources can be triangulated with other sources of information to reach a more informed understanding of the situation on the ground and events as they emerge, the structural/historical or gender contours of a conflict, the dynamics of negotiations, and of progress made to reach peace objectives.



“The technologies have not changed the fundamental analytical methodology. They have provided larger sets of information of varying quality for analysis. The challenge is to be able to identify and source technology-driven information and find the appropriate analytical programmes to sort, clean and digest relevant information”.

Source: Survey conducted by UN DPPA and HD



UGANDA AND SOMALIA - GLOBAL PULSE'S QATALOG TOOL

Social media and radio talk show monitoring can provide valuable information to mediators in contexts where access is difficult, and the information landscape fragmented. When mined carefully, these two data-sources can provide insights into people's lifestyles, priorities, and sentiments. In specific contexts where internet penetration is low, the combination of radio and social media is particularly valuable, as radio shows can give access to the voices of local populations who do not have internet access, while social media feeds can provide insights into the views of diasporas and official actors (government, NGO, media, etc.).

UN Global Pulse (UNGP) is developing a tool called Qatalog to extract, analyse and visualise data from these sources. It uses speech recognition technology developed by UNGP through its Pulse Lab Kampala that 1) 'listens' to public radio broadcasts, and 2) automates the detection of words spoken during talk shows. Qatalog also pulls in public Facebook posts, as well as Twitter streams, building on one of several partnerships established by UNGP with private sector data providers and software companies for the UN system.

The name Qata-log describes the main analytic pipeline: Query, Assign, Tag, and Analyse. The tool currently allows analysts to extract useful information from the large amounts of data collected from social media and radio feeds, and analyse it for topics of interest using a combination of optimized manual annotation techniques, and automatic helpers that include translation, geolocation and machine-learning-driven text classification. Users can visualise the volumes of annotated content over time and space, and can download the raw data for further analysis. The tool has been piloted with UN teams and agencies in Somalia and Uganda, and is continuously refined based on UN system partner feedback.

Source: UN Global Pulse

²⁸ See, for instance, Saferworld, [People's Peacemaking Perspectives Project](#).

Digital maps have been successfully integrated into the practice of many mediation teams to monitor real time developments on the ground, including violent incidents, areas of control, position, movements of troops, and movements of populations. If the data is triangulated with social media analytics, it can provide advance information of potentially destabilising events – a form of early-warning – or insights into the sources and promoters of violence, hate speech, misinformation or disinformation. More recent tools such as [MediatEUR's Peacelog maps](#) provide a system for all actors involved in a peace process to log the progress of their work and represent it in digital map format, allowing for the identification of areas that need more attention, which can enhance decision-making.



SYRIA - LIVE UNIVERSAL AWARENESS MAP (LIVEUAMAP)

Liveuamap was created by a group of engineers and journalists during the Maidan protests in Kyiv in 2014. The primary aim was to find a way to inform the public on events taking place in Ukraine. The solution was an interactive software based on Google Maps and open data. The map identifies events related to the protests and relies primarily on social media geotags to determine location. This is done by an 'AI web crawler', which filters the relevant stories and transmits them to a group of analysts for fact checking. Hired editors determine which events should be displayed on the map in near real time. Interest in Liveuamap increased as the protests eventually led to growing conflict in Ukraine. According to the website, Liveuamap now covers “more than 30 regions and topics, offers translations in several languages and can be used on mobile browsers via its own App”. The initial aim of the project gradually metamorphosed into an endeavour to help “predict and prevent future conflicts, minimize the impact of disasters and assist travellers around the world in making conscious decisions about their security throughout their journeys”.

In Syria, HD uses Liveuamap as a credible source of information to maintain an overview of developments. Information of interest is then verified by HD's network of contacts. For example, when HD was working on ceasefire agreements for eastern Ghouta, it used Liveuamap to monitor the implementation of the ceasefire and to assess the feasibility of humanitarian corridors. HD also uses the tool to contribute to ensuring the security of its staff when travelling to Syria.

LiveUA is useful for DPPA in that it quickly highlights ground incidents reported on social media, and its mapping and (rough) geotagging are helpful references. However, the accuracy of the information and geolocation it conveys varies significantly (in part due to inconsistent quality of sourcing), and thus must be verified through other channels.

Source: HD and UN DPPA Middle East Division

The fact that many of the data analysis tools are privately owned poses challenges such as the sustainable use of the resource, as well as the secure management and storage of the information collected. The tools or algorithms used may produce biased results, reinforcing existing discrimination and exclusionary patterns or producing new ones. There is concern that over-reliance on the technologies may also lead to a false sense of informed decision-making, particularly when the information is not corroborated with a presence and information gathering on the ground. As with all dual use technologies, the same digital tools that a mediator's team uses to conduct analysis can just as easily be used by spoilers to disrupt or undermine the reliability of and trust in information and, potentially, the broader mediation process. Some organizations may need to determine whether they develop their own open and trusted internal systems to gather information and perform the required analysis to assist mediation processes and broader peacemaking efforts.

The content of analysis - Until recently, conflict analysis has not generally included factors such as how conflict parties and other stakeholders use digital resources to their own advantage. Beyond communications purposes, additional factors would include how social media platforms such as Facebook and Twitter, personal and institutional blogs or instant messaging applications such as WhatsApp, are used to provide advance warning of threats; deliver narratives on the sources of the conflict; mobilise constituencies of support within and beyond borders; promote hatred, incite violence or coordinate military operations. They also include factors such as the manner in which social media and other digital technologies are used by the more technologically powerful conflict party to monitor and conduct surveillance of individuals or groups, infiltrate them in person and identify and potentially target them for assassination.

Another important element for conflict analysis includes how a country's national or subnational IT infrastructure can be a target of sabotage and disruption, or a source of competition during conflict. This is all the more critical in settings where one conflict party controls or seeks to control critical internet resources, including Internet Service Providers (ISP), potentially allowing for censorship and control of targeted opposition or citizen groups, influencing audiences or denying them access. Sometimes external actors assist them in this endeavour. The strategic and tactical uses of critical internet resources could have an important impact on a mediation process.



YEMEN - CRITICAL INTERNET RESOURCES, 2014-2018

Access to critical internet resources and IT infrastructure have been heavily impacted by the conflict in Yemen. When the Houthi forces seized control of the capital city of Sana'a in 2014, they gained control over YemenNet, then the country's only state-owned and operated Internet Service Provider (ISP) that has served the country since 2001. They also took control of electronic communications monitoring systems operated by the National Security Bureau.

Nationwide internet blackouts and strategic shutdown of telecommunications services in key areas have since occurred, continuing a pre-2015 pattern of using vital telecommunications infrastructure as a tool of political control. For instance, on 7 December 2017, the Houthi-controlled Ministry of Communications and Information Technology in Sana'a "initiated a shutdown of the internet for 30 minutes". Prior to that, it had "disabled internet access to the port city of Aden". The Government of Yemen, with support from the Saudi-led Coalition, subsequently established a new ISP, AdenNet, in June 2018 to provide internet services and to try to restore control over information flows, although its reach does not currently extend far beyond the temporary capital, Aden.

Content filtering by both YemenNet and AdenNet has reportedly increased, including targeting of local and regional news and media content, those considered politically sensitive sources and certain critical domains. All political filtering appears to be undertaken in a non-transparent way, including by fake network error pages delivered back to users instead of block pages. Finally, it is worth noting that intermittent provision of electricity is another limiting factor on the ability of individuals to access the internet and telecommunications services.

Sources: Citizen Lab, Recorded Future, UN DPPA Middle East Division

Given current trends in the military/defence realm, mediation teams will also need to integrate a capacity to understand how more offensive uses of digital technologies (so-called 'offensive cyber weapons' or 'operations', as well as increased integration of robotics and autonomous weapons systems) will feature in future armed conflict. Mediators and their teams might

consider integrating a deeper awareness of these issues into their analytical toolkit in order to determine whether associated implications (for instance, for ceasefire agreements, disarmament and demobilisation and related monitoring activities) will need to be included in talks with the parties.

2. Engagement with the Parties

The [UN Guidance for Effective Mediation](#) highlights how mediators and their teams provide an important buffer for conflict parties, instilling confidence in the process and maintaining the focus on prospects for a peaceful resolution. In addition to a keen capacity to listen, this requires knowing how to communicate, engaging conflict parties to promote exchanges and solve problems, raise awareness and capacity, engage other relevant stakeholders from across society, and build national, regional and international constituencies for peace.

According to mediators consulted during the development of this report, face-to-face, in-person exchanges remain the most effective way to promote constructive relations and build trust with conflict parties and other stakeholders. Nonetheless, for numerous reasons, including distance, time, security and financial costs, many mediation teams view digital technologies as an important complement to traditional in-person forms of engagement due to the significant efficiencies and opportunities they can bring to a process.

Ideally, a mediator's choice of which digital means to employ for engaging with conflict parties will depend on the mediation strategy, the situation on the ground, the level of connectivity in a given setting, gender considerations, and the preferences of the conflict parties in terms of digital tools they use and trust. While certain tools such as email and instant messaging have become common practice, conflict parties tend to use diverse tools. Indeed, they can easily shift from internet-based to satellite communications, from open to encrypted platforms, or from old technologies to new and vice versa, depending on the circumstances on the ground.

Opportunities and Risks

Supporting engagement - The tools currently used by mediators when engaging with conflict parties include: email services, including encrypted email clients ([Protonmail](#) or [Tutanota](#)); social media platforms and online chatrooms (mainly [Facebook](#) and [Twitter](#)); instant messaging applications ([Line](#), [Signal](#), [Telegram](#), [Viber](#), [WhatsApp](#)); audio and video-conferencing tools or Voice over Internet Protocol (VOIP) technologies such as [Skype](#). A number of tools (browsers such as [Tor](#); [Virtual Personal Networks \(VPN\)](#) such as [E-Secure Freedom](#); cryptographic and authentication technologies such as [OpenPGP](#)) are used to circumvent monitoring and surveillance, and ensure privacy of communications. When resources are scarce or in moments of urgency, mediators and their teams can develop coded language to communicate with the conflict parties.

Communications and trust building - Instant messaging applications and VOIP or video-conferencing services allow for constant and almost instantaneous engagement. In some instances they have significantly decreased the financial costs related to organizing meetings or discussions with conflict parties. This is particularly the case in highly complex processes involving numerous actors. Communication technologies can enable timely follow-up to meetings and also help limit physical security risks in that they reduce the need for travel. They can allow mediators and their teams to bypass intermediaries and communicate directly with decision-makers, or with civil society representatives and women's groups. Furthermore, they can contribute to coherence and coordination of mediation efforts by enabling mediators and their teams to communicate with different regional and international stakeholders (for

example, contact groups or groups of friends of the mediation process) to provide regular updates on the process.

Some social media tools (online chatrooms, app-based groups) offer the possibility to facilitate non-physical engagement between the parties – an additional venue to bring them together. The informality associated with social media can help build trust between parties during a peace negotiation. Certainly, digital technologies offer new opportunities for creating spaces for dialogue - virtual ‘negotiating rooms’ so to speak - allowing people to listen and speak to each other when unable to do so in person. In some circumstances, they have provided a safe space for parties to work on documents in real time and on very specific topics. These possibilities are particularly important when personal meetings are logistically, legally or politically difficult.



UKRAINE - DONBASS DIALOGUE

The Donbass Dialogue (DD) is an innovative virtual dialogue platform created in April 2015 by three displaced persons from Donetsk city (non-government-controlled areas) who relocated to Svyatohorsk (government-controlled areas) in eastern Ukraine. The platform seeks to reconnect members of divided communities amid an ongoing conflict by using a sophisticated crowdsourcing methodology that identifies issues of mutual concern. The top issues are then addressed in greater detail during a week-long ‘offline dialogue’, which takes place twice per year. The ‘offline dialogue’ is conducted using a new-generation DD Talk service based on peer-to-peer technology (WebRTC), which allows anonymous connection without prior authorization and thus creates a seemingly ‘safe space’ for all dialogue participants, wherever they may be physically located. DD participants include community and civil society representatives, IDPs, volunteers, experts and others who believe that dialogue with the ‘other side’ – even during an active armed conflict – is a prerequisite for building a lasting peace. Since April 2015, seven such dialogues have taken place, and DD now includes more than 400 members in its virtual community. More information on the Dialogue can be found at: <https://online-dialogue.org/>; <https://www.donbassdialog.org.ua/> and <https://www.facebook.com/groups/DonbassDialog/>

Source: UN Peace and Development Advisor, Ukraine

At the same time, using tools such as social media platforms or instant messaging applications to communicate with parties to a conflict can be problematic. For some, informal communications - including unmanaged online or in-app exchanges - can have the reverse effect and reduce trust. The technologies can decrease the careful composition of messages, affecting the way content is interpreted. Bypassing certain actors to directly communicate with others risks antagonising the former and distorting the process. Furthermore, dialogue via social media platforms or similar tools does not offer the same quality of personal interaction as physical meetings, and in the worst cases, can lead to exclusion, harassment, or violence – particularly against women and minorities. It can also create more distance between parties, as it is more difficult to read body language and often more difficult to trust the purported identity of the online interlocutors with whom they are engaging.

Confidentiality and discretion - Confidentiality and discretion are key features of mediation processes. They allow mediators to establish a trusted space for parties to exchange views freely and in confidence. While virtual negotiating rooms might work well for dealing with specific issues or working jointly on texts, information confidentiality and integrity can present serious challenges.



“The addiction to Twitter and other social media is consistently affecting the relevance of diplomacy. Mediation is all about discretion and the intelligent use of intermediaries in order to create a protected space for talks”.

Source: Survey conducted by UN DPPA and HD

With the increased use of digital technologies – mobile technologies in particular - it is increasingly difficult for mediators to manage the information environment and ensure the confidentiality of peace processes. Negotiating parties are under increasing pressure from their constituencies to provide an immediate and continuous flow of information. In addition, many parties also compete to be the first to announce latest events or developments in a process. Information leaks - greatly facilitated by instant messaging, mobile audio and video recording tools - have always been problematic in diplomatic processes; they are now even more common in peace negotiations, causing distraction, undermining trust and undercutting political compromises between the parties.

Social media platforms also create additional ‘noise’ in that parties to a conflict listen less to each other and more to the latest online developments, some of which can be purposefully aimed at disrupting or spoiling the process.

To deal with these challenges, many mediators work with conflict parties to clarify roles and establish ground rules - including codes of conduct or rules of engagement - to protect the confidentiality of the talks. This includes rules on mobile phone usage or interactions on social media before, during or after talks. The process leading to such agreements on these ground rules can serve as a confidence building measure in itself.



YEMEN - DISRUPTION OF NEGOTIATIONS DUE TO INSTANT MESSAGING

Peace talks held in Kuwait in 2016 were impacted when one of the two Yemeni parties received information through an instant messaging application from its allies on the ground leading to a walk-out of the negotiating team, temporarily halting the talks. The information was later shown to be inaccurate. However, by the time this was confirmed, the damage had been done. It took several days to assess the contents of the report and convince the parties to return to the negotiating table.

Source: UN DPPA Standby Team of Mediation Experts

Information Security - Most mediators work under the assumption that their electronic communications are constantly monitored and thus increasingly rely on encrypted email and messaging applications. At the same time, through their online communications and other forms of engagement with conflict parties, mediators and their teams collect and use vast amounts of electronic data. The mediation team’s information management systems may not be sufficiently secure, posing serious risks to the confidentiality, integrity, availability and reliability of the data managed by the mediation team. Mediation team staff engaging directly with conflict parties may lose their devices (smartphones, tablets or computers), or they may be stolen or interfered with. Their communications and social media accounts may be intercepted or hacked - placing themselves, their interlocutors, the reputation of their organization and the mediation process itself at risk.

Mediators may leave it to the parties to determine the means and methods of bilateral communications during a mediation process. Yet, the risk calculations of the parties may not always be well informed. For instance, many actors believe that messaging applications are safe because they are encrypted, yet in assessing associated risks, they pay limited attention to the meta-data that can be leveraged from the monitoring of their activities²⁹, or to the data-storage and privacy policies of the companies that own the applications. In addition, while end-to-end encryption has certainly increased privacy, recent research has shown that some applications display security flaws which may make infiltrating an application's chats easier than ought to be possible.³⁰

The interception of a mediator's communications or an information breach can also provide an advantage to the party that has intercepted the communications. This risks further aggravating existing asymmetries between the parties in certain conflicts.

Each of these security breaches or incidents can have financial, process and reputational implications and could, in some instances, cause harm or risk to the members of the mediation team, parties to the conflict, or personal networks.³¹



"In difficult processes, digital technologies have sometimes made mediation work harder, mainly due to security concerns. Hostile governments and groups can easily track, intervene, monitor digital devices and communications. As a result, many conflict actors fear any digital device or communication. As a mediator, I have had to work with NO digital or electronic device or communication many times, as conflict actors insist on my being completely 'non-digital' and 'non-electronic' before they agree to meet. In most conflicts I have no device (...). I have seen many cases where mediators are monitored, recorded, and conflict actors are arrested or killed after meeting a mediator who carried a digital device".

Source: Survey conducted by UN DPPA and HD

It is unlikely that digital systems and devices will ever be 100 percent secure. At the same time, avoiding digital technologies altogether is becoming increasingly difficult, even more so as more people come online and our societies become more dependent on digital technologies. Hence, ensuring effective risk management policies are in place to enhance digital literacy and digital safety and security, including training in basic cyber hygiene, should be considered essential for mediation staff, especially senior mediators.

3. Inclusivity

According to the [UN Guidance on Effective Mediation](#)³², 'inclusivity' refers to the extent and manner in which the views and needs of conflict parties and other stakeholders are represented and integrated into the process and outcome of a mediation effort. An inclusive process can increase the legitimacy and ownership of an agreed settlement. At the same time, an inclusive process does not imply that all stakeholders participate directly in the formal negotiations, but

29 See [The Humanitarian Metadata Problem: Doing No Harm in the Digital Era](#). Privacy International and ICRC. December 2018.

30 P. Rösler, C. Mainka and J. Schwenk (2018). [More is Less: On the End-to-End Security of Group Chats in Signal, WhatsApp, and Threema](#). 3rd IEEE European Symposium on Security and Privacy (EuroS&P 2018).

31 The SecDev Foundation, CyberSar initiative.

32 UN DPPA's [Guidance on Gender and Inclusive Mediation Strategies](#) provides an additional reference on the gender dimensions of inclusivity.

rather facilitates a structured interaction between the conflict parties and other stakeholders and creates mechanisms to include multiple perspectives in the process.

Digital technologies – social media in particular – provide unprecedented opportunities for ensuring greater inclusivity in a mediation process, provided, of course, that stakeholders have access to the internet. They significantly lower the financial costs and logistical burden of running traditional consultation processes. Importantly, they offer new opportunities for engaging and including the perspectives of different stakeholders, including women, youth³³ and traditionally excluded or hard-to-reach groups, throughout the different phases of the mediation process.

Opportunities and Risks

Enabling inclusivity - The online tools most commonly used by mediators and their teams to enable inclusivity include dedicated information management websites (to share information, upload documents, archive); social media platforms, and instant messaging applications; mobile or web-based online surveys/ opinion polls; or online video-conferencing tools (e.g., [Webex](#), [Zoom](#), [JoinMe](#)). These tools are used in a number of processes, including track 1 negotiations, national dialogues and consultations, and local-level dialogues. Online surveys and opinion polls are used to get a better understanding of positions and interests of broader groups of stakeholders during different phases of a process, and to inform and engage the public.

If internet access conditions are favourable, digital tools can allow mediation teams to solicit input from large numbers of people on the issues they view as priorities, their aspirations or their views of the process without necessarily broadening the actual negotiating table. This possibility is particularly important if track 1 actors are delegitimized or fragmented, or if a process is blocked. Broad online consultations can help identify additional reasons for the blockage and possible entry points for moving the process forward. They are also less resource-heavy, safer and often politically more viable than events such as referenda.



LIBYA - DIGITAL TECHNOLOGIES AND THE LIBYAN NATIONAL CONFERENCE PROCESS, 2018

In September 2017, the UN Special Representative of the Secretary-General and Head of the United Nations Support Mission in Libya (UNSMIL) announced the UN Action Plan for Libya. A key component of the UN Action Plan is the organization of a National Conference and a process to accompany the preparation of the event. One notable innovation was for Libyans to be able to contribute to the process online between April and July 2018. To achieve this, a website in Arabic was specifically designed by the Centre for Humanitarian Dialogue (HD) with parameters set to facilitate user access and navigation. This measure helped make the preparatory process more inclusive and transparent. The website included information about the national conference process as well as the dates and locations of the meetings, visual content from past events, meeting reports, and information about how Libyans

³³ [The United Nations Strategy Youth 2030](#) calls for the promotion of youth participation in political and public affairs. It sets as a priority enhancing how the UN reaches out, communicates with, listens to and responds to young people. This includes the strategic use of its convening capacity and partnerships with tech and communications companies for expansion of large-scale, multi-media outreach and campaigns relevant to young people.

could organize their own events. Most importantly, the website included an online questionnaire on the agenda for the consultations through which Libyans could provide their insights and feedback.

The online platform offered an opportunity for various groups, including those politically and socially marginalised, to express their opinions and be heard without having to attend meetings in person. In addition, an outreach campaign was organized to ensure the broadest online participation. The website was also developed to ensure that participants located in areas where it was too dangerous to organize consultations could still participate. As a result, half a million comments were generated over the course of 14 weeks on social media platforms and it is estimated that more than one million Libyans were reached. In addition, some 1,700 questionnaires were completed on the Conference website, which made up 30 percent of the overall contributions to the consultative phase of the NCP.

Source: HD



FIJI - WOMEN'S DIGITAL INCLUSION IN THE CONSTITUTION-MAKING PROCESS, 2012

In Fiji's constitution-making process in 2012, Fijian women were actively engaged in the process and empowered to participate through a variety of means, including training and through digital inclusion tools.

The Constitution Commission, consisting of five members (including three women), was mandated to draft a constitution that was the result of full, inclusive, and fair participation of all Fijians, regardless of gender. The Commission sought to gain legitimacy through public consultations, and promoted the participation of all Fijians, including historically excluded or marginalized groups like women, and ethnic and sexual minorities. Public consultations were held throughout the country to raise awareness of the constitution-drafting process. The Commission employed a range of advertising methods to bring people to meetings, using mass media and SMS messages. A website was also set up to support the process.

Considerable efforts were made to include women's voices. From the Government's announcement of the drafting of a new constitution, women's organizations took the initiative to educate and train women in Fiji's political and constitutional procedures and advocated for their involvement including through digital tools such as a website, email, and Facebook.

Around 7,100 written submissions were received by post, email, and via Facebook. Submissions were processed and made available online. Women contributed to almost one-third of all submissions to the Commission, and took part in the public seminars and discussions in large numbers. The final text of the Commission's draft constitution included a number of provisions that reflected the themes and positions advocated by women.

Source: Inclusive Peace and Transition Initiative

Despite their manifold opportunities, using digital technologies to enable more inclusive processes carries certain risks. Mediators and their teams have to grapple with the potential tension between inclusivity and efficiency: the variety, quantity and immediacy of data that can be collected to promote greater inclusivity and the expansion of the consultation base can lead to mediation processes becoming more overloaded. These challenges can be mitigated by ensuring that a consultation mechanism is appropriately resourced and staffed, and includes a capacity to analyse input, engage with those participating in the consultation and develop feedback loops as well as manage potential spoilers. Mediators also need to manage expectations, which might have been amplified through broad social and traditional media coverage of the consultation mechanisms. Ensuring adequate resources and tools to manage complex consultation processes, high volumes of data and amplified expectations is essential.



COLOMBIA - NEGOTIATIONS BETWEEN THE GOVERNMENT AND THE FARC, 2012-2016

In Colombia, the negotiating parties set up a webpage to collect submissions from the public, as foreseen in the framework agreement, which stated: “To guarantee the widest possible participation, a mechanism will be established to receive, by physical or electronic means, proposals from citizens and organizations on the points of the agenda.” (Acuerdo General, Colombia, 26 August 2012, Point 6.)

The website provided a static but user-friendly form for making suggestions to the parties on any topic. It received 3,000 proposals in the first hours after it was launched and, for example, generated some 500 proposals just on the issue of land and agricultural reform. The website was also intended to serve as a platform for the parties to inform the public of their activities, joint statements, and agreements. While many key documents were usefully posted there, the site was unfortunately not updated frequently enough to fully and effectively serve its role.

Another challenge was the sheer number of submissions received. On the subject of victims and transitional justice, for example, the parties received a total of 23,000 submissions either through the website, physical submission of the same form, or in-person consultations. A total of 67,371 submissions were made on all issue areas. Both the FARC and the government dedicated time and resources to distill and give consideration to the proposals. The government contracted a Colombian NGO, Fundación Ideas para la Paz, to analyze and present summaries while the FARC prepared its own internal analysis and incorporated many into its own proposals. The parties also jointly established a project to organize all inputs to allow easier access and to preserve for future reference.

Source: UN DPPA Standby Team of Mediation Experts

The use of digital technologies to enhance inclusivity can also have the unintended consequence of perpetuating or creating new forms of exclusion. For instance, online consultative processes might unwittingly amplify existing discriminatory or exclusionary practices through the sampling process as well as cognitive and social biases introduced into the programming of the consultative tool from the outset. Furthermore, unequal access to the internet can deepen exclusionary patterns affecting women.³⁴ In particular, digital literacy levels and the degree of connectivity of a country’s population will affect the possibility of using digital tools to enhance inclusivity and participation. Finally, the use of digital technology could promote superficial

³⁴ See, for example, [Toolkit for researching women’s internet access and use](#) (2018). Alliance for Affordable Internet, the World Wide Web Foundation, Association for Progressive Communications and the GSMA.

forms of inclusion which do not ensure meaningful dialogue, exchange of views and the development of personal empathy which are required among participants to a peace process.

As in the other thematic areas, there are security risks. For instance, many of the tools used for online consultations establish databases of names that can be compromised. This creates real risks to the participants who can be easily associated with certain positions, people and protests, as well as reputational risks for the organization or entity organizing the consultation.

4. Strategic Communications

The [UN Guidance for Effective Mediation](#) recommends that mediators design a communications strategy to help inform civil society and other stakeholders about developments or delays in the peace process to manage expectations in terms of both what, and the speed at which, the process can deliver.

Digital technology is increasingly used to support the development and implementation of a mediator's public communications strategy. Understanding the digital ecosystem of a given context is crucial for determining which media to use to convey messages to which audience. Since traditional media still plays an important role in many conflict contexts, a public communications strategy should ensure it combines both traditional and electronic media so as to ensure consistency of messages. It should also be informed by gender and inclusion expertise and systematic consultations with women's organizations and civil society.³⁵

Mediators need to design their public communications strategies taking into account the strategies used by conflict stakeholders, while considering the overall context and the different phases of the process. In some situations, mediators and their teams will need to weigh up the opportunities and risks of online and offline visibility in a process. In this vein, mediators need to choose how much visibility they want to give to the process, ranging from blackout to moderate and full visibility. If mediators opt for moderate or full visibility, they need to agree with the parties on joint or even coordinated approaches to a media presence. In short, a mediator's public communications strategy is developed on the basis of the information that is gathered to inform it; and the tools and processes used to deliver it, many of which overlap with those discussed in the other thematic areas of this report.



“Many of the tensions we have seen derive either from a lack of information or from misinformation, which inflames hostilities between communities”.

Source: Survey conducted by UN DPPA and HD

³⁵ See [UN Guidance on Gender and Inclusive Mediation Strategies](#).

Opportunities and Risks

Informing public communications strategies - Social media and big data analysis are reportedly the key tools currently used by mediation teams to inform public communications strategies. This includes the tools used for conflict analysis and that can analyse perceptions or sentiment (e.g., [Crimson Hexagon](#), [Crowdtangle](#), [Storyful](#), [Talkwalker](#), [Twitterfall](#)). The online and offline information gathered for this purpose includes open-source intelligence such as conflict-related news, public perceptions of the mediator or the mediation process, and narratives of the conflict parties and other stakeholders. Meanwhile, conflict parties (whether governments, opposition parties, civil society, armed groups, or diasporas) use a variety of online communication tools to convey their positions and promote their own narratives and counter-narratives on issues relating to the conflict - including tactical gains on the battlefield - or the peace process.

Delivering public communications strategy - Social media platforms and messaging applications provide an efficient means for communicating information to the public, often allowing for faster and more targeted communication as well as access to broader audiences. Social media platforms such as [Facebook](#) and [Twitter](#), as well as dedicated institutional websites (for instance, <https://www.unmissions.org>, <https://news.un.org>) are currently the principal tools – alongside traditional media - used by mediation teams to communicate to the public. These tools allow mediation teams to inform national, regional and international actors and media.



DEMOCRATIC REPUBLIC OF THE CONGO (DRC) - THE USE OF WHATSAPP DURING THE POLITICAL DIALOGUE, 2016

During the DRC political dialogue led by the African Union, the facilitator was overwhelmed by requests from Congolese media representatives for accreditation to the dialogue process. His team accredited a significant number of journalists, but due to limited capacity and resources, many others - particularly those based outside of Kinshasa - could not be accredited. Instead, the communications team created a WhatsApp group to share communiqués as well as other important information, including meeting programmes and schedules. It became a platform on which members would instantly share documents, pictures and comments, about the process.

Source: UN DPPA Standby Team of Mediation Experts

The tools can be used to sensitise audiences on issues relating to the mediation process before the commencement of activities or talks, or to disseminate reassuring messages across communities. Similarly, they can be used to provide accurate information and counter spoilers through sensitive periods of a mediation process. Additionally, the use of visuals (sometimes referred to as ‘visual diplomacy’) allows mediators to build stories about the process in a way that is understandable for broad audiences.

Mediators and their teams nonetheless face many challenges in implementing an effective public communications strategy in the digital era. For instance, mediators need to weigh up the pros and cons of communicating via a broader institutional social media account (e.g. UN Mission in X) or a more personalised institutional social account (e.g. Special Envoy on X). Personalized accounts allow for more direct interactions but also run the risk of attracting vicious and personal attacks.



“Many of the tensions we have seen derive either from a lack of information or from misinformation, which inflames hostilities between communities”.

Source: Survey conducted by UN DPPA and HD

As with the other thematic areas, managing communications on social media or controlling the narrative around the mediation process is complicated and resource intensive. Mediators might need to consider working with the parties to establish ground rules or a code of conduct on the use of social media as well as on what information relevant to the process should be shared with the broader public and when.



NICARAGUA - SOCIAL MEDIA, PUBLIC PROTEST AND A TRUNCATED DIALOGUE PROCESS, 2018

In mid-April 2018, student-led protests sparked by a government decision to cut back key social benefits developed into nationwide mobilizations against the government. Within days of the initial protests, the government requested the Nicaraguan Catholic Bishops' Conference (CEN) to convene a National Dialogue and serve as both mediator and witness for the process.

The Bishops' Conference identified the need for a transparent and inclusive process and communicated about the National Dialogue through formal press releases, including via its own social media platforms. However, individual bishops, including the lead mediators, used their personal social media accounts to communicate with the public, increasingly denouncing government repression of the protests. While this generated certain public support, it also contributed to diminished trust of the Government in the neutrality of the mediator.

In line with the commitment to transparency, the opening session of the Dialogue was televised and live-streamed over social media. The president headed the government delegation and was confronted by student leaders who held him directly responsible for the deaths of 48 people (the death toll at the time), reading off each one of their names. The president promptly downgraded the government delegation, assigning the Foreign Minister to lead it going forward. The subsequent session was not live-streamed although live streaming resumed for the final two sessions. It did, however, appear that this mechanism of transparency was used by all parties as a platform for affirming or marketing their own positions to the public, rather than for stimulating fruitful dialogue.

Source: UN DPPA Standby Team of Mediation Experts

In conflict contexts, social media has often been used to advance competing narratives on the causes of the conflict or the direction of a peace process, to incite hatred, violence, and fear, and to disseminate misinformation and disinformation. Spoilers of all stripes can use social media and a range of tools and techniques to influence public perception, and thereby risk derailing a peace process.³⁶ Mediators may be also be more exposed to criticism when communicating via social media and can be drawn into so-called 'information wars' or become subject to online attacks.

³⁶ S. Hattotuwa (2018). [The Janus Effect: Social Media in Peace Mediation](#). ICT4Peace. See also United Nations (2017).



AFGHANISTAN - RECONCILIATION & DIGITAL MEDIA, 2018

In late September 2018, a newly appointed U.S. Special Representative for Afghanistan reconciliation was tasked with “coordinat[ing] and lead[ing] efforts to bring the Taliban to the negotiating table”. High expectations were placed on the envoy, with the media scrutinizing his first moves.

Despite a generally positive media buzz around the envoy’s appointment, within less than a month his work had attracted controversy online. Social media platforms, especially Twitter and Facebook, were awash with news, comments and speculations about his first visit to the region, including talks with the Taliban Political Commission. The main Afghan parties and interlocutors were also active, shaping narratives about everything he did. One contributing factor to the online controversy around the Special Representative was the fact that he did not use digital communication tools during the first weeks of his new assignment.

During a second mission to the region and in order to counter reports of secrecy and lack of transparency, the envoy created a ‘media moment’ around the establishment of a Twitter account. Within a week the account had amassed more than 10k followers. It was a first step towards recognizing the need to have an voice in the digital realm.

Source: UNAMA



“Social media is where a battle for narratives takes place, with opposing sides vying to get their views trending on Twitter etc. #Rohingya and #Syria are examples of hashtags that have experienced fierce competition”.

Source: swisspeace



SRI LANKA - HATE SPEECH ON FACEBOOK, 2014

A central challenge around addressing hate speech is that it is technically impossible – given the volume, variety and velocity of content production on the Internet today – to robustly assess and curtail, in as close to real time as possible, inflammatory, dangerous or hateful content in English, leave alone other languages like Sinhala or Tamil. Once content is produced for the web and originally for a single platform, given user interactions and responses, it often replicates and mutates into other content over dozens of other websites and platforms, making it impossible to completely erase a record of its existence even if the original was taken down, deleted or redacted. This makes it extremely hard to address the harm arising out of hate speech.

Another challenge is in defining hate speech. Excessively broad legislation risks the law being used to curtail and stifle dissent. Loosely defined laws, on the other hand, allow perpetrators of hate speech to get off scot-free by referencing freedom of expression protections. Policymakers who have to respond to angry communities and individuals who are the targets of hate speech, if they are important constituencies, often respond with promises to address a problem they in fact cannot. Internet Service Providers and large corporations like Google, Facebook and Twitter have developed guidelines around

the content they will allow on their platforms, but these seem to only work best around output in English. For example, this [brief study](#) testimonies to the sheer volume of hate freely disseminated in Sinhalese on Facebook, even though the company has clear guidelines around such content which includes the banning and blocking of users.

Source: [Centre for Policy Alternatives](#)

Slow to react to the escalatory and violent potential of some of these uses, social media companies are increasingly compelled to remove or prohibit different kinds of content on their platforms, leading to an upward trend in content moderation policies and practices (for example automated flagging, removal and pre-publication filtering; user and trusted flagging; human evaluation; account or content action; notification; appeals and remedies).³⁷ Some of these efforts are producing important results but many have been fitful due to overlapping technical, definitional and normative issues and the fact they tend to be context neutral. In particular, content moderation policies and practices have spurred concerns about their vagueness and lack of transparency as well as human-rights concerns relating specifically to privacy and freedom of expression.

Several third-party actors have developed tools to mitigate or counter hate speech, misinformation and disinformation (e.g., [CounterDisinfo](#), [First Draft](#), [FotoForensics](#), [Google Jigsaw](#), [Snopes](#), [Verification Handbook](#)). Yet, these are not generally applied in conflict contexts. There are examples, however, where local groups have taken on the task, using instant messaging or social media to counter hate speech, misinformation and disinformation, but all of these third-party efforts also encounter technical, resource and definitional challenges.

For mediation teams, hate speech, misinformation and disinformation are particularly difficult to manage. Attempts by mediation teams to counter or mitigate them as a means to de-escalate and move the mediation forward could have a countervailing effect, drawing more attention to and ultimately spreading the narratives they are actually trying to quell. Doing so would therefore require careful analysis of the tools and resources at their disposal and the benefits and risks of their use.

[Plan of Action for Religious Leaders and Actors to Prevent Incitement to Violence that Could Lead to Atrocity Crimes](#). United Nations Office on Genocide Prevention and the Responsibility to Protect.

³⁷ Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression. June 2018. [A/HRC/38/35](#). p.13.

Conclusions

The objective of this report is to enhance awareness and understanding of the opportunities and risks relating to the use of digital technologies in mediation in armed conflict contexts.

Some key points will require consideration as this initiative moves forward:

- It is evident that while mediation is and will remain a predominantly human endeavour requiring human skills and sensitivity, the mediation environment is increasingly impacted and influenced by digital technology.
- These technologies will continue to evolve in the coming years and become ever more pervasive across societies. The field of mediation will not be immune to these changes.
- The opportunities and efficiencies that digital technologies bring to the field of mediation are significant. These opportunities are already evident in conflict analysis; in a mediators' engagement with conflict parties; in strategies aimed at enhancing inclusivity; and in public communications strategies.
- In these and other areas there will also be significant risk. Mediators and their teams need to understand the interaction of digital technologies in the conflict environment and how digital technology can be used in such contexts.
- A risk management approach guided by the do-no-harm principle can help mediators and their teams better leverage the opportunities of digital technologies across different thematic areas and in different phases of a mediation effort. This means that mediators will have to acquire skills in digital literacy, understand and manage digital safety and security issues, and ensure they have the necessary resources to manage the digital tools they embrace to support their work. Awareness raising and capacity building can contribute to such an approach.

The report - and the accompanying Toolkit - represent a first step in a wider and necessary effort to inform mediation practitioners of the potential of digital technologies. Future work in this area will be enhanced by constructive interactions between mediation actors, technology experts and private companies.

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