



AGENCY FOR
PEACEBUILDING



DIGITAL TECHNOLOGY AND INCLUSIVITY IN PEACE MEDIATION

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ABOUT THE AGENCY FOR PEACEBUILDING

The Agency for Peacebuilding (AP) is a non-profit organisation whose mission is to promote conditions to enable the resolution of conflict, reduce violence and contribute to a durable peace across Europe, its neighbouring countries, and the world. AP is the first Italian organisation specialising in peacebuilding. This allows us to occupy a unique role in the European landscape: on the one hand, we interpret and synthesise relevant topics for the benefit of Italian agencies and institutions working on peace and security; on the other, we highlight experiences, capacities, and resources specific to the Italian system, which can contribute to the resolution of violent conflict.

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Cover photo description: A moment from the Digital Future of Development Dialogue in New York (Credit: UNDP, 2019).

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ABSTRACT

Digital technologies have always played a key role in global security and warfare, but besides being a source of competition and a cornerstone of geopolitical power, they also have the potential to contribute to more equitable, effective and thus sustainable peace. In this sense, they can support the design of more inclusive peace mediation, ensuring a better engagement of women and other marginalised identities in such processes. However, a deeper awareness of the features, benefits and challenges of digital technologies is crucial not only to make the most of their positive potential, but also to avoid further exacerbating conflict dynamics through the inappropriate and insensitive use of available technologies. In light of the ever-growing interest in the opportunities offered by digital technologies for peace, this paper aims to reflect on the potential to enhance inclusion, especially of women, in peace mediation through the use of digital technologies while, at the same time, warning about the risks of their inappropriate use in conflict contexts.

LIST OF ACRONYMS

AI	Artificial Intelligence
AP	Agency for Peacebuilding
AR	Augmented Reality
DPPA	Department of Political and Peacebuilding Affairs
DRC	Democratic Republic of Congo
EU	European Union
GIS	Geographic Information Systems
HOT	Humanitarian OpenStreetMap Team
MSU	Mediation Support Unit
PRIO	Peace Research Institute of Oslo
RSF	Rapid Support Forces
SAF	Sudan Armed Force
SDG	Sustainable Development Goals
STEP	Strategic Technologies for Europe Platform
UN	United Nations
USIP	United States Institute of Peace (USIP)
IEWS	Violence & Impacts Early-Warning System
VR	Virtual Reality
WPS	Women, Peace and Security

INTRODUCTION

Technology has always played a key role in geopolitics and conflict, and the digital era has radically changed the way of warfare. Yet digital technologies are not only a source of competition or a way to more effectively wage war, but also a potential means for building peace. They can be used to reach more equitable, effective and thus sustainable peace, to contribute to conflict prevention and transformation as well as to design more inclusive peace mediation, ensuring a better engagement of women and other marginalised identities in such processes. However, a deeper awareness of the features, benefits and challenges of digital technologies is crucial not only to make the most of the positive potential of such tools, but also to avoid further exacerbating conflict dynamics through the inappropriate and insensitive use of available technologies.

This paper aims to reflect on the potential to enhance inclusion, especially of women, in peace mediation through the use of digital technologies while, at the same time, warning about the risks of their inappropriate use in conflict contexts. Such reflections might be of interest for governmental and non-governmental mediators who are considering resorting to – or already experimenting with – such tools to achieve their peace and mediation objectives, for researchers investigating the role of technology in building peace, but also for tech developers who may still not be fully aware that what they have to offer could make a considerable difference in peacebuilding processes.

THE POWER RELATION BETWEEN TECHNOLOGY AND GEOPOLITICS

Technology has become integral to all aspects of life: it is nowadays central to the functioning of public, economic and social life, constantly transforming and redefining the way we communicate, work, learn and get access to information and public services. However, its spread, access and use are uneven and vary enormously according to users' socio-economic background, gender, age, ability, literacy, and country. Digital access thus often mirrors many of the disparities seen not only among diverse identities, but also between more and least developed countries, highlighting the impact of the global digital divide.

Extremely impactful on individual lives, technology is also an asset in international relations, since it is a key source of power, which deeply affects social, political, economic factors. Throughout history, geopolitics and technology have developed ever growing linkages, with technological advancements often reshaping international relations and politics and vice versa. From the printing press or the telegraph to the Internet, innovations have not only influenced communication in daily life, but also diplomacy and warfare. At the same time, geopolitical considerations and competition have also driven technological innovation, as is evident in the case of the space race or the harnessing of nuclear power.

Towards the end of the 20th century, the rapid advancement of technologies was widely seen as a key catalyst and an accelerator of the emerging “interdependence-peace” nexus—that is, the notion that societies deeply connected through trade and human exchanges are less prone to go to war with each other. A world made increasingly borderless by instant communication and cheap transportation was believed to be one in which all kinds of distances and differences – including political, economic, and cultural gaps – would be mitigated, the fading of “the foreign” removing a leading factor behind hostility and conflict. The World Wide Web was hailed as akin to the discovery of a new more inclusive world, one which would make available to anyone, and at a low cost, the entire knowledge of humankind, allowing people everywhere to connect and become members of a truly global human society.

Already challenged at the turn of the current century, such a narrative has been largely abandoned in the last decade. International competition is now back as the central paradigm of international relations in a world in which we see the revival of nationalism in various forms, the hardening of borders almost everywhere, and the international system cracking down along old and new geopolitical cleavages¹.

¹ Mazarr, Frederick, Crane, “Understanding a New Era of Strategic Competition”, RAND Corporation, 2022.

Conflicts and wars are at the top of the international agenda, while massive resources are again being allocated to defence in the name of “preparedness”. In such a context, technology is obviously a critical area where strategic competition takes place. The weaponization, mastering, and control of technology is thus part of the new “Great Game”². The pace of technological advancement as well as the geographical distribution of innovation will decisively determine the race among powers. As a result, the “geopolitics of technology” is an increasingly central concern for leaders around the world and a rapidly expanding area of inquiry and discussion in policy circles. A particular emphasis is placed on so-called “critical technologies”, which encompass for example Artificial Intelligence (AI), semiconductors, quantum technology, bio-technology, 5G and 6G communication, cybersecurity and robotics. These technologies possess actual or potential dual-use applications in civilian and military domains and they are so transformative and pervasive that mastery over them may confer enormous power. The 2022 US National Strategy has prominent sections dedicated to high tech as a foundation of national power and a tool of geopolitical competition³. For its part, the European Union (EU) has taken increasingly concrete steps of late to ensure that technology is not used to weaken or challenge liberal norms and is instead leveraged towards enhanced resilience, for instance through the creation of the Strategic Technologies for Europe Platform (STEP), which aims to boost European sovereignty by investing €160 billion in key industries⁴.

While in the 1990’s scholars had often assumed that digital technologies like the Internet and, later, social media platforms would inherently help the spread of human rights and liberal norms, now the concern is that the same technologies are employed as powerful instruments of geopolitical revisionism at the international level and control or even oppression at the domestic level. Technologies can, in fact, be used to spread misinformation and hate speech, control opponents and dissidents, and engage in more sophisticated forms of cyber warfare, where technology becomes a weapon rather than a tool for peace. Technology and innovation are the cornerstones of geopolitical power and almost all governments widely invest in them while autocratic leaders around the world, after an initial attempt to limit their use, are now actively leveraging digital technologies for coercion and repression, giving rise to techno-autocracies. In such a context, cybersecurity has been elevated to a key concern for the security and military sectors while cyber threats and cyberattacks have already led to the development of dedicated strategies, including at the multilateral level, among those countries that worry about the future of the “open society” and the risk of interference in electoral and democratic processes. Preserving a technological edge is thus seen as essential not only for security, but for making sure that its development and use are in line with democratic norms and human rights.

² Suri, “The Great Tech Game: How Technology Is Shaping Geopolitics and the Destiny of Nations”, Harper Collins India, 2022.

³ The White House, “National Security Strategy”, October 2022.

⁴ European Parliament, “Critical technologies: how the EU plans to support key industries”, October 2023.

THE NEXUS BETWEEN TECHNOLOGY AND PEACEBUILDING: OPPORTUNITIES AND RISKS

In the era of cyberwar, where technology is often at the service of hard defence if not offence, with the global paradigm shifting to maintaining security by preparing for war, the usefulness of digital technologies for building peace has been vastly underestimated compared to fully established fields such as cybersecurity. After a first widespread enthusiasm about the democratising power of technology, nowadays the prevailing approach is more cautious, mostly focused on the risks, challenges and pitfalls⁵. However, recently, there is an ever-growing interest in the opportunities offered by digital technologies for peace. “PeaceTech” is usually defined as the strategic use of technology to promote peace, prevent conflicts, and support various peace efforts including peacekeeping, peacemaking, and peacebuilding⁶. As a field, it relies on a variety of physical, digital and virtual tools and approaches.

For example, **social media networks, by allowing users to create content and share ideas, might help to spread literacy about peace and conflict**, create digital peace communities and facilitate joint civil society actions and digital reconciliation activities. An interesting example is the Maskani Commons⁷, a collaborative project that engaged university students from Western Kenya in social media activism. The project was born out of a collaboration between the Center for Media, Democracy, Peace and Security of Rongo University, and Build Up in 2019, with more universities joining at a later stage. Sixty students were given a safe space to learn and strengthen their digital peacebuilding skills to effectively and safely manage their online engagement. Throughout the project, they intervened on their own social media feed on polarising issues such as politics, ethnicity and COVID-19. This was an extremely interesting project because it leveraged the cultural and social importance of *Maskanis* in Kenya, which are places where people gather informally to socialise with peers and exchange information and news. Also, the project started in the midst of COVID-19, when many youth were bored and was thus able to take advantage of the youth’s use of social media.

Virtual Reality (VR) and Augmented Reality (AR) could create immersive experiences that might overcome bias and foster empathy among conflicting parties while also strengthening peace education. In this case

⁵ Bosoer, Giovanardi, Nesovic, “Global PeaceTech: navigating the landscape, innovating governance”, European University Institute, STG Policy Brief, 2023/03, p. 3.

⁶ Davletov, Kalkar, Ragnet, and Verhulst, “PeaceTech Topic Map: A Research Base for an Emerging Field”, Global PeaceTech Hub and GovLab, January 2023, p. 6.

⁷ Owino, “Becoming a Maskani Digital Peacebuilder”, BuildUp, November 2020 and Ogenga, “Maskani is Our New Normal”, ConnexUs, April 2022.

it is worth mentioning the immersive VR experience “The Enemy”⁸, which deepens and “humanises” the users’ understanding of long-standing conflicts by combining AI and neuroscientific research on empathy. Created by Karim Ben Khelifa, a war photographer, The Enemy gives voice to the combatants of the Maras in Salvador, in the Democratic Republic of the Congo (DRC), and in Israel and Palestine. The fighters share stories about their lives, experiences, and perspectives on war, to allow listeners to better understand their motivations and, as a consequence, their humanity. A great tool for educational purposes, to strengthen empathy and active listening, in The Enemy gamification and experience design are used to guide the users to vividly experience the interaction with the “enemy”, a human being that is so often kept at distance and dehumanised⁹.

In another sphere, **blockchain technology might enhance trust and accountability**. Blockchain is an advanced decentralised database allowing transparent information sharing within a closed network. In this regard research is being conducted by the Blockchain Society Lab¹⁰ of the Peace Innovation Institute to better understand how blockchain-based systems can serve as an operating system for society and achieve a greater degree of collaboration, including in peace processes, between different stakeholders. Meanwhile, One PeaceLab¹¹ investigated how blockchain-based smart contracts could support the implementation of peace agreements, starting from the idea that blockchain networks could be used to guarantee the traceability of conflict minerals. By using blockchain technology, trust could be decentralised: we would not have to trust one certificate as proof of origin, but the blockchain network itself would vouch for it. These are interesting ideas since blockchain technologies have some promising features to safely connect and guide the interactions among public and private actors, individuals, business and machines.

AI and machine learning¹² can analyse vast amounts of data, and identify hidden and consistent patterns, correlations and other insights useful for conflict analysis, early warning and the prediction of conflict—but also to combat hate speech, investigate human rights violations, or analyse themes such as the effects of climate change on conflict. The “Violence & Impacts Early-Warning System” (VIEWS), for example, is an award-winning conflict prediction system and academic research consortium jointly led by Uppsala University and the Peace Research Institute Oslo (PRIO)¹³. VIEWS generates monthly forecasts for violent conflicts across the world up to three years in advance and it is constantly improved and

⁸ The Enemy official website.

⁹ Hirblinger A. T., “Building a peace we don’t know? The power of subjunctive technologies in digital peacebuilding”, *Peacebuilding*, 11(2), 2023.

¹⁰ Peace Innovation Institute, The Blockchain Society Lab.

¹¹ The Berlin Moot, “Day two of the Berlin Moot: we don’t need more policies, we need more implementation”, April 2024.

¹² More information in Ashby, “A Role for AI in Peacebuilding”, USIP, December 2023 and in Panic and Arthor, “AI for Peace”, CRC Press, April 2024.

¹³ The Violence & Impacts Early-Warning System (VIEWS) official website.

expanded upon by means of the active research and development activities undertaken by the VIEWS consortium. Until now, VIEWS was only able to offer predictions for state-based conflict, but in 2024 the system will expand to offer predictions also for non-state conflict and one-sided violence against unarmed civilians. The range of AI applications will grow in every sector and while its implications for peacebuilding are yet to be fully understood, it is clear there will be countless implications—and thus it is extremely important to be ready to maximise its positive potential.

Geographic Information Systems (GIS) and satellite imagery can provide essential geographical information on specific locations, groups, or themes such as key natural resources, allow the monitoring of security arrangements or ceasefire agreements, as well as support humanitarian response planning and monitor human rights violations. The Humanitarian OpenStreetMap Team (HOT)¹⁴ is engaged, for example, in humanitarian action and community development through open mapping, providing open-source information to take more informed and context appropriate actions. They work to provide map-based data, which improves disaster management, reduces risks, and contributes to achievement of the Sustainable Development Goals (SDGs). HOT, together with Columbia University, also implemented the Mapathon project¹⁵, which helped to re-map flood-affected areas to sustain humanitarian efforts in the aftermath of Hurricane Maria in Puerto Rico.

Having briefly considered the use of digital technologies for peacebuilding and acknowledged their potential to positively impact peace efforts, it is of the utmost importance to also highlight the risks they might present. While digital technologies develop at an impressive speed, research in this domain is also expanding, shedding light on the challenges and dilemmas posed by the adoption of such innovation in peace efforts.

A notable trend is to move away from viewing these technologies and their challenges in isolation. A more holistic approach is needed, capable of recognizing that the interconnected nature of modern technologies demands a deeper examination to fully grasp their socio-political impacts¹⁶. Researchers also emphasise the importance of a human-centric approach that places human beings and human rights at the core of the technological revolution, ensuring that decision-making processes remain inclusive and transparent¹⁷. The ambition of such research is to develop new analytical frameworks that can enhance our understanding and improve our application of technology in peace efforts. By focusing on the

¹⁴ Humanitarian OpenStreetmap Team (HOT) official website.

¹⁵ Yin, “A Mapathon to Pinpoint Areas Hardest Hit in Puerto Rico”, *The New York Times*, 2nd October 2017 and Kirk, “The Crowdsourced Maps Guiding Puerto Rico’s Recovery”, *Wired*, October 2017.

¹⁶ Nicolaidis and Giovanardi, “Global PeaceTech: unlocking the better angels of our techne”, European University Institute, Working Paper, EUI RSC, 2022/66, Global Governance Programme.

¹⁷ Ibid.

potential of technology to address the root causes of conflicts, such research aims to create conditions for sustainable peace. This involves promoting not only inclusion, but good governance, socio-economic well-being, and respect of human rights, all while being mindful of the unintended harms and risks that technology might pose, especially to vulnerable communities.

When designing and using digital technologies in conflict contexts, it is therefore necessary to consider some practical obstacles such as the digital divide, which limits the access of large portions of the world's population, and the lack of digital literacy, which is indispensable for an informed and safe use of these tools. Intersectional forms of exclusions such as poverty, belonging to marginalised groups, or lack of education have a great impact on the success of an inclusive peacebuilding action. Digital tools might, in fact, produce new forms of exclusion based on electricity or Internet access, connectivity, infrastructure limitations, resource barriers as well as a lack of digital literacy. As technology advances, there is thus a risk that the most vulnerable communities—those most in need of peace interventions—are left behind due to a lack of access to technology or the necessary skills to make an appropriate use of it. The digital divide and lack of digital literacy thus not only hinder the effectiveness of digital peace efforts, but they can also deepen inequalities, exacerbating existing tensions and putting individuals and communities at risk.

Resorting to the use of technology to ensure inclusion of diverse voices might also create an overload of insights and information, making the overall process hard to manage and thus failing to meet people's expectations. At the same time, digital instruments might be designed in a way that only superficially enhances inclusion without truly ensuring meaningful exchanges and personal empowerment. Furthermore, the lack of adequate cybersecurity measures can potentially compromise the safety and security of participants causing harm more than benefit, while digital inclusion might also challenge existing power hierarchies and create real or perceived threats to which authorities feel the urge to react further excluding or oppressing already marginalised groups. On a wider scale, the global concentration and unequal distribution of technology (in geographical, but also in gender terms) confront us with a dilemma about power imbalances in the design, use and benefit of such technologies, and stress the importance of democratising (and decolonising) their development and access.

These issues highlight the need for strict ethical reflection and a risk assessment by designers and users of such technologies, as well as a careful consideration of the potential negative impacts of technology on peace efforts. Addressing these challenges not only demands a context-specific and sensitive assessment and analysis, but also a robust governance framework at all levels, from local to national, regional and global, capable of safeguarding the positive influence of technology in conflict transformation and

peacebuilding and avoiding or mitigating its negative effects. A collaborative effort across various relevant stakeholders is required to ensure the responsible and effective use of technology in promoting global peace and security.

The convergence of various technologies under the PeaceTech umbrella is offering innovative perspectives to peacebuilding efforts. Technology has indeed the potential to offer new and diverse avenues to prevent, mitigate and address conflicts. By leveraging such technology, peace initiatives can obtain a better understanding of conflict roots and dynamics, propose innovative solutions and engagement models across actors and sectors and ultimately contribute to sustainable peace. Yet, the misuse of such technology in peacebuilding efforts is also risky and its employment must be cautiously assessed and monitored.

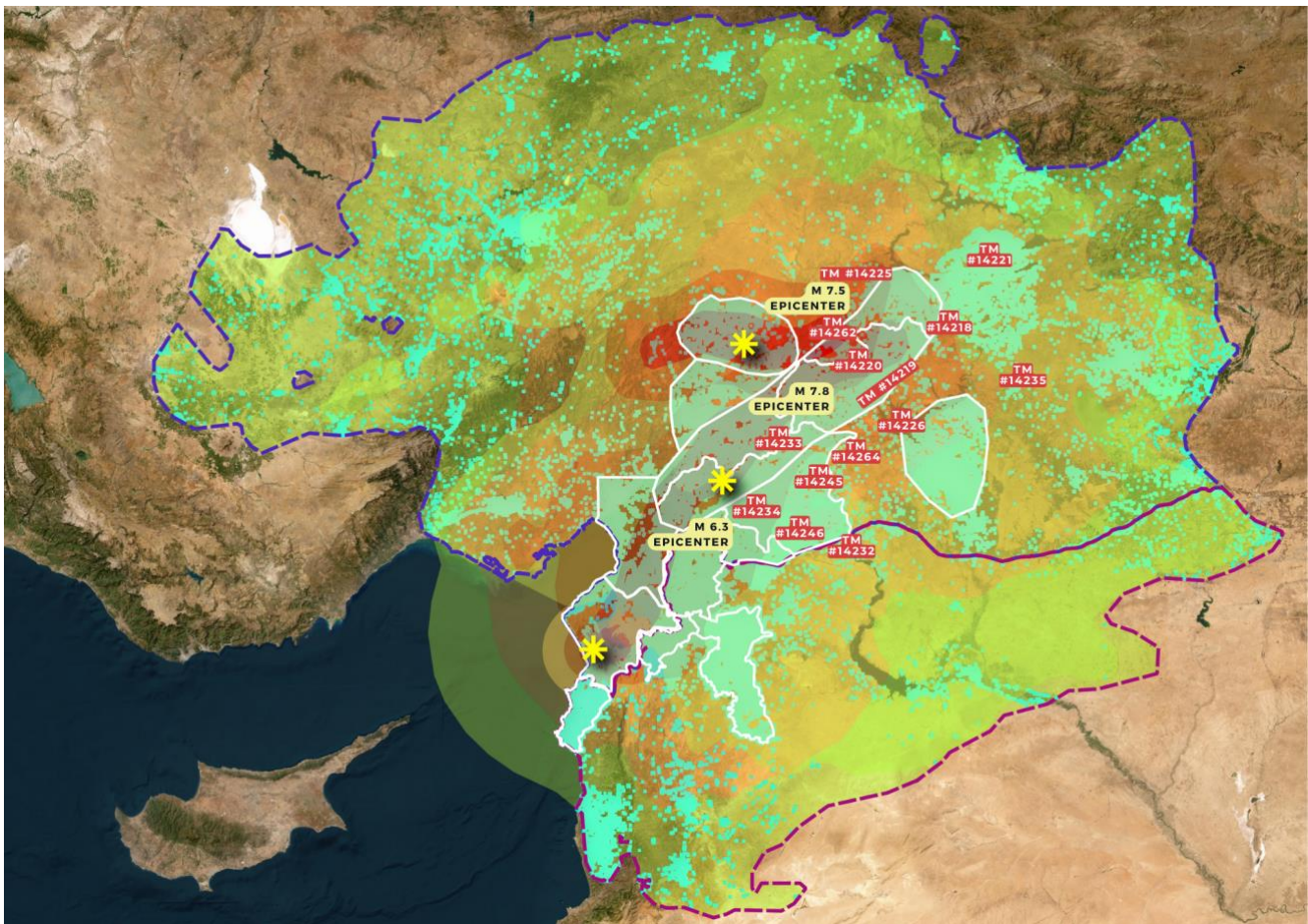


Photo description: A map of areas affected by the 2023 earthquake in Türkiye and Syria, as developed by the Humanitarian OpenStreetMap Team (Credit: Humanitarian OpenStreetMap Team, 2023).

LEVERAGING DIGITAL TECHNOLOGIES FOR INCLUSION IN PEACE MEDIATION

As we tried to briefly highlight, technology has provided the peacebuilding sector with various tools to improve its effectiveness. This also applies to the specific field of peace mediation—that is, to the methods employed for mediating and solving conflicts. Mediation is defined as a process whereby a third party assists two or more parties, with their consent, to prevent, manage or resolve a conflict by helping them to develop mutually acceptable agreements¹⁸. Aimed at preventing and resolving conflicts through non-armed means, mediation remains a human-centred activity where personal interactions play a vital role. However, the field is not immune from the impact of technological advancements. The COVID-19 pandemic accelerated the integration of digital technologies into the interactions and strategies of mediators and, as a result, a hybrid model of mediation, blending in-person and online activities, has started to emerge¹⁹.

Technology holds particular promise as a means to strengthen inclusion in peace mediation processes, namely to engage a wider and more diverse group of stakeholders throughout the phases of a mediation process, including, potentially, the most marginalised and hard-to-reach. In mediation contexts, inclusion 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”²⁰.

Digital technologies can indeed be helpful to more effectively hear the voice and seek the inputs of a wide, diverse and often unheard group of people on the issues at stake during the peace process. Such tools are able to address concrete barriers hindering participation, such as geographic distance, language needs, limited access to information, low literacy, and siloed networks²¹. By minimising or overcoming these barriers, technologies can leverage the voice of different segments of society and of a broader number of stakeholders, including marginalised groups, and integrate their perspectives into the mediation process. Besides expanding its reach, the engagement through digital means can also lower the cost of mediation activities and overcome logistical or security challenges of in-presence consultations.

An inclusive mediation process stands also a better chance of recognizing and addressing the underlying causes of conflict, ensuring that the needs and concerns of all segments of the population are met.

¹⁸ United Nations Mediation Support Unit (MSU), “Guidance for Effective Mediation”, September 2012.

¹⁹ Hirblinger, “Digital Inclusion in Mediated Peace Processes: How Technology Can Enhance Participation”, USIP, September 2020.

²⁰ United Nations Mediation Support Unit (MSU), “Guidance for Effective Mediation”, September 2012.

²¹ Whitfield (ed.), “Still time to talk: adaptation and innovation in peace mediation”, *Accord*, issue 30, 2024.

Furthermore, by involving a broader range of stakeholders, digital inclusion can also strengthen the legitimacy of the peace mediation and its outcomes and ensure greater political support as well as ownership over the process²². In this way marginalised and vulnerable groups are empowered and able to inform peace processes, while the risk of excluded parties disrupting the process also diminishes. Digital inclusion can also transform and potentially improve the social, political, and cultural relationships between conflict parties and their stakeholders²³.

Focusing on the opportunities offered by technology²⁴ to more inclusive mediation processes, AI has shown great potential in analysing big amounts of complex data collected from the population experiencing the conflict and in broadening, in this way, the inclusivity of peace processes. In order to be effective and sustainable, mediation efforts should, in fact, acknowledge the unique aspects of the conflict, considering its root causes and development, the positions and interests of the conflicting parties and stakeholders as well as the broader societal needs. Digital technology can, in this sense, significantly influence the methodology and content of a conflict analysis by increasing the volume, variety and velocity of information gathered and providing innovative means for managing and organising it. The process is easier and data can also be efficiently utilised and visualised for easier analysis and dissemination purposes.

An example worth to be mentioned is the AI-supported dialogues in Sudan conducted by CMI-Martti Ahtisaari Peace Foundation. In Sudan, the war that erupted in April 2023 between the Sudanese Armed Forces (SAF) and Rapid Support Forces (RSF) has stalled the democratic transition the country was undergoing. CMI-Martti Ahtisaari Peace Foundation launched the AI-supported digital dialogues to understand the new priorities and perspectives amidst the conflict, especially considering the heightened difficulty of accessing various regions in the country following the outbreak of violence. The organisation used Remesh²⁵, a software product developed for real-time written dialogue with up to 1.000 participants at a time, which features integrated AI-powered analytics functions capable of processing large amounts of textual data. Two digital dialogues were conducted, the first targeting women's groups, networks, and alliances, and the second focusing on youth and resistance committees. The sessions were first run synchronously, meaning they were conducted in real-time with direct facilitation in Arabic. These were followed by a week-long asynchronous session without facilitation, taking more the form of a survey. The findings, which eased the identification of consensus and disagreement among the target groups and

²² Hirblinger and Landau, "Daring to differ? Strategies of inclusion in peacemaking", *Security Dialogue*, vol 51, issue 4, 2020.

²³ Hirblinger, "Digital Inclusion in Mediated Peace Processes: How Technology Can Enhance Participation", USIP, September 2020.

²⁴ United Nations Department of Political and Peacebuilding Affairs and Centre for Humanitarian Dialogue, "Digital Technologies and Mediation in Armed Conflict", March 2019.

²⁵ The product was previously used by the UN in various peace processes, such as Yemen and Libya.

helped to set the agenda, were shared with the participants through the same channels, in a feedback loop to ensure that they were aware of the findings. The insights gathered, afterwards, directly informed CMI's efforts and were also shared broadly among key stakeholders, including international ones. Even if the programme only required a 2G network connection, many connectivity challenges were faced by users and, at the beginning, building people's trust was not an easy task. However, the consultations succeeded in reaching a diverse range of participants including women and youth, both within and outside Sudan, and was a valuable complementary tool at a time when in-person engagement was difficult.

By organising digital dialogues and online platforms to engage and involve citizens in consultations and decision-making processes, such a project was indeed able to increase inclusivity. Digital technologies thus might ensure the inclusion of views and perspectives of a greater and more diverse number of people, including from previously excluded or hard-to-reach groups. However, while, as a general concept, inclusion appears to be a widely accepted idea, its implications are often highly political and potentially divisive: deciding who is "invited", and how, in a peace mediation process is a complex decision that must be cautiously weighed.

There are conceptual dilemmas and political challenges awaiting any mediator setting out to design an inclusive peace process. While new technologies have increased the ability to include constituencies, it remains important for mediators to carefully consider, in the mediation design, the tension between inclusivity and efficiency. In this sense, it is important to stress that increased inclusivity does not necessarily bring a hard-to-manage and ineffective enlargement of the formal negotiating table, but rather encourages dialogue and interaction between conflicting parties and other relevant stakeholders. In this respect, technologies are able to provide practical and new solutions, broadening the participation opportunities in less conventional and formal ways, redesigning virtual spaces that are different from physical ones, fostering less hierarchical interactions and power dynamics, focusing on the integration of diverse views rather than on the physical presence of many stakeholders.

As in the broader case of PeaceTech, the enormous potential of digital technologies in peace mediation does not come without risks, ranging from the security of those engaged to the exclusion of specific groups. Mediators should thus be aware of how to avoid, or at least mitigate, potential harm. For this reason, strengthened digital awareness and literacy is essential for everyone involved in the design and implementation of peace mediation.

Furthermore, a risk management mind-set guided by the principle of "Do No Harm" applied to digital spaces is required to determine which technologies should be used, when, where and why in each of the

mediation stages. The context should always be assessed, focusing, among others, on the local connectivity, the use and preference of digital tools and the online security and safety. In order to guide the mediators in such a delicate task, the Mediation Support Unit of the UN's Department of Political and Peacebuilding Affairs (DPPA), together with CMI-Martti Ahtisaari Peace Foundation and the CyberPeace Institute, released in 2022 an open access Cyber Hygiene and Digital Risk Management E-Learning Platform for Mediators²⁶. Focused on the specific risks posed to mediation by the use of digital technologies, the tool aims to strengthen mediators' awareness and capacity to mitigate and manage them. The platform is designed to help the peace mediation community understand how cyber risks impact mediation work and the actors engaged with it.

To conclude, as in all peacebuilding efforts, also in peace mediation the choice of technologies should be wisely integrated into the overall goal of the peace process and based on its strategic objectives. Mediators should ask themselves whether and how technology can support the mediation efforts without yielding the temptation of using it if such means are not reasonably and effectively integrated into the overall mediation architecture.

²⁶ Cyberpeace Institute, "Digital risk in conflict mediation: Digital Risk Management E-Learning Platform for Mediators", February 2022.

WOMEN INCLUSION IN MEDIATION PROCESSES THROUGH DIGITAL TECHNOLOGIES

Focusing on a specific group that can potentially benefit from inclusion, the use of digital technologies in peace mediation might indeed unlock a greater involvement of women, giving them the power to inform peace processes by providing opportunities and resources for participation²⁷. Over the last few decades, international policy frameworks have expanded considerably to recognize the important role played by women in peace and security issues, as peacebuilders and change-makers, and to provide guidance on the gender dimension of such processes. The Women, Peace and Security (WPS) Agenda²⁸, grounded in United Nations Security Council Resolution 1325 (2000) and subsequent, related resolutions by both the UN Security Council and General Assembly, has at its core the theme of equal participation and full involvement of women in all efforts for the maintenance and promotion of peace and security, including in peace processes and mediation efforts.

A growing body of research and case studies shows that an increased role of women in conflict prevention and resolution—whether in official negotiating roles or through grassroots interventions—can improve outcomes before, during, and after conflict²⁹. For example, women’s participation increases the probability of a peace agreement lasting at least two years by 20%, and a peace agreement lasting fifteen years by 35%³⁰. Women’s involvement can expand the range of domestic constituencies engaged in a peace process, strengthening the overall legitimacy and credibility of the intervention. Furthermore, women’s perspectives bring a different understanding of the causes and consequences of conflict, generating more comprehensive, targeted and potentially transformative proposals for its resolution. Overall, women’s participation in peace negotiations with voice and influence is conducive of better content, higher agreement implementation rates, and longer lasting peace.

Yet, even if we take into account the growing number of states tackling the nexus of gender and security in national action plans and the improvements in mainstreaming women’s leadership in peacebuilding, women’s participation in formal peace processes still remains very low. In 2022, only 16% of negotiators or delegates in peace processes led or co-led by the UN were women³¹, while of 18 peace agreements reached in that year, only one was signed or witnessed by a representative of a women’s group or

²⁷ Hirblinger, “Digital Inclusion in Mediated Peace Processes: How Technology Can Enhance Participation”, USIP, September 2020.

²⁸ USIP, “What is UNSCR 1325? An Explanation of the Landmark Resolution on Women, Peace and Security”.

²⁹ Council on Foreign Relations, “Women’s Participation in Peace Processes”.

³⁰ O’Reilly, Ó Súilleabháin and Paffenholz, “Reimagining Peacemaking: Women’s Roles in Peace Processes”, International Peace Institute, June 2015.

³¹ This represents a decline from 23 percent in 2020. More information here: UN Women, “Facts and figures: Women, peace, and security”.

organization³². No women were included in negotiating teams for conflicts in Ethiopia, Myanmar, the Balkans, Sudan, or Yemen. Only in Colombia did women approach parity in both the government and rebel negotiating teams³³. Without active measures taken by the UN, that number would have certainly been even lower. The dearth of political will or existing contextual obstacles keep hindering women's empowerment, such as is happening in Yemen where the parties to the conflict continue to reject women's participation, despite consistent advocacy by the Special Envoy of the Secretary-General for Yemen³⁴. Despite their active involvement in conflict prevention and peacebuilding at the grassroots level, women's representation in formal negotiations remains thus inadequate and they are often relegated to the role of voiceless bystanders, passive beneficiaries or tokenistic participants.

Once again, digital technologies prove particularly valuable in creating new practices and standards in mediation processes and in empowering women by overcoming socio-political and structural hurdles and offering opportunities for enhanced engagement in peace mediation processes. Digital inclusion, in fact, is able to overcome concrete barriers to participation, such as geographic distance and inability to move, time constraints, linguistic accessibility, personal safety and wellbeing, exclusion from formal processes, limited access to information and low literacy³⁵. Digital solutions can indeed complement and maximize in presence ones and enhance the overall mediation process by enabling the dialogue, easing the collaboration and ensuring the participation of women's constituencies and groups³⁶. Digital solutions can create safe spaces, for example in the form of anonymous online spaces, or allow for "asynchronous engagement", so female participants have the opportunity to attend their duties and come back to the conversation on their own time and preference³⁷. Digital technologies can also strengthen ownership over processes for those women who might face challenges attending in-person dialogues due to physical, security or logistic constraints.

An interesting example in this sense is the WhatsApp Consultations implemented by Build Up in Yemen, together with the Office of the UN Special Envoy for the Secretary-General to Yemen³⁸. Ten WhatsApp focus group consultations involving 93 women from various governorates have been organised in March 2021. The goal was to gather insights on peace, conflict, and the impact of prolonged insecurity on the

³² In the 2022 negotiations between the Ethiopian government and the Tigray People's Liberation Front, neither party included women in their negotiating team, although a woman served as mediator in the talks that led to the peace agreement in November 2022. Similarly, women did not participate in the UN-facilitated Belgrade-Pristina dialogue process in 2022, nor the negotiation or subsequent review of the Five-Point Consensus on Myanmar.

³³ Council on Foreign Relations, "Women's Participation in Peace Processes".

³⁴ UN Women, "Facts and figures: Women, peace, and security".

³⁵ Hawk, "Digital inclusion in peacemaking- Practice, promise and perils", p. 102, in Whitfield (ed), "Still time to talk: adaptation and innovation in peace mediation", Accord, issue 30, 2024.

³⁶ Ibid., p. 105.

³⁷ Tabet, El Mawla, Meier, Puig Larrauri, Costa Cots, "Sealing the cracks: An intersectional feminist perspective on digital peacebuilding", Berghof Foundation, April 2023.

³⁸ Build Up, "Feminist approaches to online consultations and what they reveal", June 2021.

daily lives of women. These consultations followed earlier initiatives: a WhatsApp survey in late 2020 to identify discussion topics and a tactical mapping in February 2021 to select diverse participants. The team chose WhatsApp because of its affordability, flexibility, simplicity as well as for its respect for power balance and the feminist principles guiding the research. The process required a lot of safeguards and energy spent in building group trust and group norms among the target participants: Build Up facilitators had individual WhatsApp conversations with all participants, taking time to get to know them and answer their questions. The trust built was an asset to create a space open for honest dialogue in which female participants felt – in some cases for the first time – that they really had the opportunity to express their opinion. The result of this participatory process, facilitated in a space which aimed to remove power imbalances, was a set of findings that revealed new, intersectional narratives about women’s experience of peace and conflict in Yemen.

However, the blind hope that digitalisation would directly promote gender equality has been met by the sobering reality that mechanisms of marginalisation are often reproduced in the digital sphere. Digital technologies have indeed the potential to perpetuate the exclusion they are designed to address³⁹. Online spaces often risk replicating and even amplifying the structures, practices, and culture of patriarchal society and just as often they are not even safe, due to their design or use. Moreover, even if by engaging women in digital spaces the process might successfully address practical challenges to inclusion such as mobility, resources, safety or the physical limitations of how many people can fit in a room, digital participation does not allow women to have an in-person exchange, for example with those who oppose their participation and overall equality⁴⁰. In a sense, then, digital inclusion treats the symptoms of women marginalisation in peace mediation without addressing the root causes, potentially hindering or at least slowing down deeper structural change.

In addition, the digital divide along gender lines still remains a key issue. Internet access and connectivity continue to be a major problem for women⁴¹, especially in rural and segregated communities. High illiteracy rates and lack of digital literacy among women and girls, especially in conflict-affected contexts, is another persistent barrier while patriarchal gender norms prevent many women from accessing the Internet. As a result, the possibility of access to such online spaces determines which women have the chance to be included and which are inevitably excluded, causing a representation bias that might lead to false insights and conclusions. Even when they have access to the Internet, women’s ability to pursue

³⁹ Berman, “Women’s Digital Inclusion in Peacemaking”, Peace Research Institute Oslo (PRIO), Centre on gender Peace and Security, GPS Policy Brief, 2023.

⁴⁰ Ibid.

⁴¹ Buzatu, Fal-Dutra Santos, Lakehal, Pourmalek, Zelenanska, “Women, Peace, and Security and Human Rights in the Digital Age: Opportunities and risks to advance women’s meaningful participation and protect their rights”, Global Network of Women Peacebuilders (GNWP) and ICT4Peace Foundation, October 2021.

their goals is limited by the security threats and human rights violations they face: online harassment, intimidation and violence are unfortunately extremely frequent and sometimes the risk is that such online violence turns into physical one. In addition, digital inclusion risks becoming even more tokenistic than in presence one, since it might look easier to reach a greater quantitative inclusion of female participants, and including their voices might turn out to be a mere “box-checking” exercise. Overall, thus, women still encounter several socio-political, financial, technical, and cultural barriers and risks that hinders an effective and safe use of digital technologies in peace mediation.

To conclude, digital technologies can indeed contribute to women’s participation and empowerment which, in turn, can strengthen and legitimise peace mediation processes⁴². However, risks in this area are also significant. While keeping in mind that inclusion in digital spaces is just one of the ways to strengthen gender equality- not a goal in itself- it is important to cautiously design and select technologies that enhance the potential of women digital inclusion while reducing or mitigating its risks.



Photo description: Young women taking part in a digital literacy workshop in Zambia (Credit: CIDRZ, 2022).

⁴² Ibid.

CONCLUSIONS AND RECOMMENDATIONS

Digital technologies can offer a wide range of effective means and diverse solutions to support peace mediation especially when it comes to the inclusion of minority or marginalised voices such as women. However, in order to maximise the benefits of digital inclusion, peace mediation actors and stakeholders should always take into account a range of contextual elements before deciding if and what technology to use, particularly the socio-cultural, political and digital landscape of the environment they are operating. Resorting to digital technologies to sustain mediation efforts presents, as we tried to highlight, both risks and opportunities. The former must be mitigated, whereas the latter maximised in order to effectively design and use such technologies to support inclusive peacebuilding and peace mediation efforts.

There are several reflections worth conducting and actions to be taken to further strengthen the positive potential of digital inclusion, especially of women in peace mediation. These recommendations might be useful not only for governmental and nongovernmental peace mediators, but also for digital technology researchers and developers. Taken together, these recommendations could offer the basis of a sound, balanced, gender-sensitive peace tech agenda for the years to come.

Overcoming resistance to technology. While mediation is a sector that should inherently be adaptive, there is a tendency among experts and practitioners in this field to approach change and innovation with a high degree of scepticism. This is often justified by the fact that mediation is a risky and extremely sensitive business. Yet, the practice of mediation should keep pace with the changing realities of war and peace and recognise that technology is now inextricable from a mediation process⁴³. Moreover, digital inclusion is creating new standards of practice and helping foster greater participation in peace processes, particularly for women and other marginalised groups. For this reason, it is crucial to recognise the challenges, limitations and risks posed by the use of digital technologies, but also to go beyond those fears and cautions to capitalise on their potential. Every mediation process has its limits and pitfalls, but a greater trust and awareness of the opportunities offered by technologies is essential to unlock their utility. Moreover, digital inclusion is creating new standards of practice and helping foster greater participation in peace processes, particularly for women and other marginalised groups. For this reason, it is crucial to recognise the challenges, limitations and risks posed by the use of digital technologies, but also to go beyond those fears and cautions to capitalise on their potential. Every mediation process has

⁴³ Whitfield (ed.), "Still time to talk: adaptation and innovation in peace mediation", *Accord*, issue 30, 2024.

its limits and pitfalls, but a greater trust and awareness of the opportunities offered by technologies is essential to unlock their utility.

Raising awareness among donors. The same scepticism still prevents many public and private donors from investing in innovative interventions which aim to increase inclusion by leveraging on digital technologies. There is a shortage of public funds available to work on digital inclusion in peace processes and most of the attention of both states and regional or international governmental organisations is dedicated to the risks of cybersecurity, misinformation and disinformation or online hate speech. For their part, private donors may not be yet fully aware about the opportunities that could be reaped by strengthening the private sector's involvement in and support for ongoing and prospective peace tech initiatives. For this reason, there is a dire need for more regular exchanges between practitioners, researchers, and potential donors and for more resources available for pilot projects overall. It is thus essential to advocate for the importance of digital technologies in peace mediation through the presentation of concrete case studies while also warning that innovation takes time and that failure is an integral part of the learning process.

Increasing knowledge and awareness of PeaceTech. Almost ubiquitous connectivity and dependence on digital means are increasingly pervasive features of current times and, in this changing environment, mediation experts need to understand the risks associated with digital technologies, being aware of how they impact their work and the actors they engage with. It is essential for mediation practitioners not just to be informed on the main technologies available, but to be able to adapt to the digital shift by reacting to the threats and mitigating them while, at the same time, leveraging the latest technological advances in a strategic way. Raising awareness on the potential as well as risks of the use of digital technology in the peace mediation sector is crucial.

Considering the risks and context in the design of the digital component. A risk management approach guided by the Do No Harm principle needs to be in place to manage safely and effectively the digital engagement in a specific context while at the same time, it is essential to assess how to avoid replicating structural exclusions and create new ones. In addition, in order to identify the most suitable tools, the selection of the digital technologies to be used in a specific intervention should be based on a careful context and conflict analysis as well as on the specific objective and target of the action. It is thus fundamental to assess the contextual customs, preferences and norms on the use of digital technologies. This requires considering a range of practical and operational questions, such as the accessibility and connectivity and the potential barriers to digital inclusion, and ensuring that the targeted groups and communities trust the process and feel ownership over it. Researchers might also further investigate how

digital inclusion initiatives in peace mediation can better incorporate local knowledge and traditional practices to ensure cultural sensitivity and effectiveness and avoid “imported” and “top-down” tools.

Further researching, exploring and experimenting. Many digital technologies are yet to manifest their full positive potential for inclusion in peacebuilding and mediation. It is important, in contexts in which it is safe for participants and for the overall process, to test such digital approaches using them as a complement to more traditional ones. More case studies are needed to showcase their effectiveness and warn about their limitations while many questions are still to be answered by researchers. It would be interesting to dive deeper into the specificities of the digital spaces for example when it comes to how the trust building or power dynamics differ from the physical space.

Capitalising on partnerships. In order to mitigate risks and maximise benefits, dialogue and cooperation between peace, mediation and inclusion practitioners on one side and tech developers on the other should be encouraged to ensure that priorities are jointly identified and efforts are maximised towards the development of high-impact tech-enabled peacebuilding products. A basic peace, human rights and gender awareness and knowledge would be beneficial for tech developers, given the importance played by such stakeholders in the growth of digital technologies deployed in the peace and mediation field. In this context, women-developed and women-centred digital tools should be particularly supported in order to capture the complexity of their voices and improve the algorithmic biases while at the same time initiatives based in the Global South should be endorsed. A key step towards making digital technology a true force for an inclusive peace is to keep fostering a structured and systematic exchange among what is now a diverse, segmented and not entirely self-aware group of actors. Working synergically together towards a broad set of shared goals and concrete outcomes, mediation and tech experts would further strengthen similar networks to those that over the years have come to connect researchers, practitioners, and policy makers working on technology and defence issues. This would allow the PeaceTech community to grow and be able to set its joint priorities for the years to come.



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