Background Research on PeaceTech and Opportunities for Women Peacebuilders, HRDs and CSOs

Introduction

PeaceTech refers to the use of technology in conflict-prevention, peacebuilding and reconciliation efforts. Any technological tool that aids peacebuilding, peace-making, peacekeeping, and peace enforcement efforts can be described as PeaceTech. New technologies offer opportunities for participation, engagement, and accountability, allowing historically marginalised groups such as women peacebuilders to actively contribute to the peacebuilding processes.[1] At the same time, novel technologies also raise novel challenges and risks, which call for targeted and responsive solutions outlined in the 'recommendations' section of this document.

Opportunities and Risks of Using PeaceTech for Gender-responsive Peacebuilding

Technology can play a critical role in helping Member States implement UN Resolution 1325. PeaceTech can support the work of women peacebuilders and human rights defenders (HRDs) by:

1. Increasing women's participation in peacebuilding
2. Bridging data gaps for gender-responsive peacebuilding
3. Amplifying the work of women peacebuilders, HRDs and CSOs
4. Measuring and Evaluating the Efficacy of Gender-responsive Peacebuilding Campaigns
5. Upskilling and Training Women Peacebuilders and HRDs

1. Increasing Women's Participation in Peacebuilding

Between 1992 and 2019, women constituted only 6% of mediators, and only 6% of signatories to significant peace processes. Moreover, approximately 70% of peace processes during this time did not include a single woman mediator or signatory.[2] The low rate of female participation in peace processes is especially alarming given that 50% of the world's refugees, internally displaced or stateless persons are female.[3] According to a recent report from ICAN, "while participation of and resources for women peacebuilders remain meager, the antipathy and threats from state and non-state armed groups alike have increased."[4] In Yemen, for example, women HRDs and peacebuilders report being harassed, beaten with rifles and dragged on the street.[5]

Case Study: AI-Assisted Virtual Dialogues in Yemen

Virtual dialogue platforms powered by natural language processing (NLP), can help women overcome physical and cultural barriers to their participation in peacebuilding. In 2019, UN DPPA partnered with AI platform Remesh to try and conduct more inclusive peacebuilding dialogues in Yemen. Remesh AI is an AI platform that enables up to 1000 participants to anonymously engage

[1] Paula Drumond, Elisabeth Prügl and Maria Consolata Spano, 'Mobilizing Gender for Conflict Prevention: Women's Situation Rooms' (2022) 16 Journal of Intervention and Statebuilding 249.
[2] https://www.cfr.org/womens-participation-in-peace-processes/.
[3] https://womenforwomen.org.uk/blog/5-facts-about-what-refugee-women-face#:~:text=Fact%203%3A%2050%20percent%20of,half%20are%20women%20and%20girls.
[4] https://icanpeacework.org/wp-content/uploads/2021/07/ICAN_ProtectingWomenPeacebuilders.pdf
[5] https://www.amnesty.org/en/latest/campaigns/2019/12/yemen-one-of-the-worst-places-in-the-world-to-be-a-woman/

in large-scale digital dialogues. Remesh uses natural language processing (NLP) to condense unstructured content into meaningful information, in a range of dialects and languages. Using Remesh, women peacebuidlers were able to participate in the large-scale digital dialogue in Yemen without exposing themselves to the risk of physical harassment. Because Remesh uses NLP to overcome language barriers, such tools could also be used to help women peacebuilders engage in peacebuilding dialogues with stakeholders from multiple regions within a conflict zone.

Risks:

- Use of NLP software with no visual interface in peace processes risks translation errors arising from misattribution of cultural nuances and lack of body language that could hamper constructive dialogue.

- Large-scale digital dialogues are vulnerable to cyber-harassment, i.e. unwanted intrusions/hacks from external parties wishing to disrupt the peace process.

2. Bridging Data Gaps to Enable Gender-responsive Peacebuilding

According to a recent report by Data 2x, "systematic and reliable data for many indicators of women's human security are unavailable due to the unique challenges of data collection in conflict-affected environments." Specifically, there is a dearth of reliable data concerning war-related mortality and morbidity forcible displacement conflict-related sexual and gender-based violence; women's participation in peace and security processes and human trafficking.[6] This lack of reliable data not only limits the scope and efficiency of conflict prevention, reconciliation and peacebuilding efforts but also alienates women from the discourse on peace efforts, amplifying the risk of developing non gender-responsive frameworks and policies that could further endanger women in conflict areas.

Case Study: Ushahidi's "I Am Nirbhaya" Campaign – Citizen-Generated Data to Report, Map and Analyze Gender-based Violence in India

Ushahidi is an open-source software application that allows users to submit reports using their mobile phones or the internet. In India, Ushahidi launched the "I am Nirbhaya" ("I am fearless") campaign, which allows any Indian citizen to report incidences of sexual and gender based violence in India, monitor and respond to the reported cases, and analyze data to find trends. By serving as a publicly available database of cases of violence against women across the country, this tool empowers women HRDs and CSOs with the data they need to improve accountability and protect women.

Case Study: PeaceFem App – Using Data to Help Women Peacebuilders, HRDs and CSOs Influence Peace Processes

PeaceFem is a free mobile app that highlights female peacebuilders' strategies to influence peace processes as well as the provisions created in agreements and the level of their implementation. It

[6] Mapping Gender Data Gaps in Human Security' <https://data2x.org/wp-content/uploads/2020/03/MappingGenderDataGaps_Security.pdf> accessed 9 November 2023.

does so by showcasing instructive, data-driven case studies that are regularly updated. For example, the 2023 update features new case studies from Afghanistan Myanmar and Indonesia. PeaceFem is used by women HRDs, peacebuilders and activists in 60 countries around the globe, and is available in Arabic, English, Burmese, French, and Bahasa Indonesia. PeaceFem content is easily accessible and available offline as well, which greatly improves accessability for women peacebuilders and HRDs in regions with little or no internet connectivity. Moreover, the app is designed to consume a small amount of storage space (50MB), further improving accessability to women peacebuilders and HRDs who use low or middle-end mobile devices. The app was created jointly by UN Women, Inclusive Peace, Monash University's Gender, Peace and Security Centre, and the University of Edinburgh.

Risks:

- Allowing users to populate databases with non-peer reviewed, citizen-generated data in real-time can result in inaccurate information stemming from individual bias, manual errors and inconsistencies in data collection/reporting methods across geographies.

- Monitoring of real-time data about abuse of women peacebuilders/HRDs can lead to privacy intrusions including state-sponsored surveillance as well as digital and offline harassment of women peacebuilders and/or survivors of gender-based violence.

3. Amplifying the Work of Women HRDs, Peacebuilders and CSOs

Increasing awareness of their work is crucial for women CSOs and peacebuilders to raise funds as well as expand the reach and impact of their programs. Yet, a common challenge confronting women activists and CSOs across Asia is a paucity of support, resources and tools to amplify their work. PeaceTech can help fulfil this pressing need through various innovative technological applications.

Using Customized GPTs to Amplify the Work of Women Peacebuilders and CSOs

Generative artificial intelligence refers to AI that can produce, summarize and analyze various types of content, including text, imagery and audio content. Popular generative AI systems include OpenAI's ChatGPT, Meta's Llama and Anthropic's Claude. In November of 2023, OpenAI released customizable versions of ChatGPT, allowing any user to build their own tailored Generalized Pre-trained Transformer (GPT), that can produce specialized content in any area of expertise.[7] Using tools like OpenAI's GPT Builder, women's CSOs and peacebuilders can build their own unique GPTs that have specialized knowledge of their programs, mission and objectives. These GPTs can then be used to produce content that amplifies their work, including newsletters, project summaries, social media posts, fundraising pitches and other forms of content.

For example, a women's CSO in Indonesia may executes several projects a year, but lack the budget and marketing expertise to amplify it's work. This would limit the CSO's ability to raise funds, reach new audiences and accelerate the career growth of its employees. To solve for this problem, the CSO could build its own GPT trained to have an in-depth knowledge of the CSO's

[7] https://openai.com/blog/introducing-gpts

work. Any employee could build this GPT without knowing how to code and with just a few hours of training. To train the GPT, the employee would simply upload examples of project reports, employee profiles, website copy and other documents that describe the work of the CSO. After it is trained, the GPT could create content that amplifies the work of the CSO. For example, the GPT could be prompted to "create a Bahasa Indonesia Facebook post about our recent trainings in Malang." Within seconds, the GPT could produce a post that accurately describes the project and its impact. This could be repeated to produce a large volume of content in any language targeted at any audience, reducing the CSO's marketing costs and enabling them to amplify their work to more diverse audiences.

Risks:

- Generative AI platforms are known to sometimes produce inaccurate information due to 'hallucinations' caused by coding errors and/or training data bias.

- Underlying AI platforms that power customized GPTs can reinforce gender bias due to the fact that they are trained on years of publicly available data which may reflect gender stereotypes. A Stanford study examining 133 biased AI systems deployed across various sectors from 1988 to 2021 revealed that 44 percent exhibited gender bias, with 26 percent displaying both gender and racial biases.

4. Measurement and Evaluation of Gender-responsive Peacebuilding Programs

Accurately measuring a gender-responsive peacebuilding program's impact is critical to ensuring its continued impact through future funding and support. Multiple women peacebuilders from Indonesia, Bangladesh and India interviewed for this report agree that accurately assessing the impact of their programs is one of the most difficult, yet important challenges they face. PeaceTech can play a role in addressing this challenge.

Case Study: Using Micro-expression Recognition Algorithms to Measure Impact of Gendered Campaigns to Prevent Violent Extremism

Between 2017 and 2022, with funding from UN Women, Mythos Labs developed 13 videos that aimed to counter gender stereotypes used by violent extremists across Bangladesh, Indonesia, Malaysia, Thailand, Vietnam, India and the Philippines. One of the ways Mythos Labs and UN Women assessed the impact of these videos was by using micro-expression recognition algorithms. Mythos Labs conducted focus groups with viewers who fit the target demographic for each video but who had not yet seen it. Viewers watched the videos in a monitored environment. Video feed of their reactions in real-time were analyzed by an emotional recognition algorithm that was able to detect seven key emotion-driven reactions: amusement, nervousness, anger, enthusiasm, boredom, curiosity and excitement. The algorithm was trained on hundreds of thousands of hours of viewer reactions and could recognize changes in emotional states based on "micro-expressions" unnoticeable to the human eye, i.e. extremely discrete changes in facial muscles. As a result, Mythos Labs was able to identify pivotal 'inflection points' in the video – dialogues, symbols, characters who elicited strong positive or negative emotional reactions. This data helped reveal attitudinal changes in the target audience, indicating specific words/actions/characters that made the audience more/less likely to embrace the videos' intended message. Analysis of this data

helped minimize the risk of backlash and inform the development of future, targeted videos that successfully counter gender stereotypes used by violent extremists.

5. Upskilling and Training Women Peacebuilders/HRDs

Traditional capacity building formats such as physical, in-person trainings and institution-based academic programs are difficult to scale and expensive. However, several kinds of peacetech present novel opportunities for upskilling and training large numbers of women peacebuilders and HRDs in cost-effective and engaging ways.

Case Study: Massive Open Online Course (MOOC) to Increase Online Safety of Women Journalists

Massive Open Online Courses (MOOCs) are free digital courses made available through the internet open to large numbers of people. They can serve as a powerful means of disseminating digital safety training content accessible to women peacebuilders and HRDs around the world. For example, in 2021, the Knight Center for Journalism and UNESCO partnered to create a massive on "How to report safely: Strategies for women journalists and their allies**."** This MOOC was accessed by over 5,000 women journalists from Asia, North America, Europe and Africa.

Risks

- Online training platforms can exclude marginalized women peacebuilders who lack infrastructure or financial capacity to gain access to reliable internet connections.

- Participants can feel less engaged in online learning compared to in-person learning. A 2021 study conducted among young people in India found that traditional in-person learning methods elicited higher student engagement than online learning on several categories, including clearing of doubts, submission of assignments and ability to take notes.[8]

[8] https://archives.palarch.nl/index.php/jae/article/download/8416/7859/16486

Recommendations

1. **PeaceTech Trainings for Women Peacebuilders**. There is an urgent need to train women peacebuilders, HRDs and CSOs on how to identify, evaluate and use PeaceTech solutions to support their work. Women peacebuilders and CSOs in Asia often lack awareness of the diverse array of PeaceTech solutions that they could be using to support their efforts.[9] Trainings should teach women peacebuilders how to: identify safe, affordable and accessible PeaceTech tools, develop methodologies for evaluating a tool's suitability for use in local contexts, and safely use relevant PeaceTech tools to further gender-responsive peacebuilding efforts.

2. **AI Literacy Trainings for Women Peacebuilders.** Just as digital literacy played a critical role in empowering women peacebuilders to promote gender-responsive peacebuilding over the last decade, AI literacy will be crucial to advancing gender-responsive peacebuilding in the decades ahead. Understanding how to use AI-based tools to identify, defend against and mitigate WPS-related threats will empower women peacebuilders to harness this transformative technology towards gender-responsive peacebuilding. AI Literacy trainings should aim to teach women peacebuilders how to use free/low-cost AI tools to generate content that combats gender stereotypes, amplify their WPS-related work, monitor and detect hate speech against women, as well as other relevant applications of AI. AI Literacy training modules for women peacebuilders should include chapters on prompt development, prompt optimization, evaluation of WPS-themed AI tools, responsible/safe use of AI systems and overview of risks/biases related to use of AI for gender-responsive peacebuilding.

3. **Use of Cryptocurrency to Financially Compensate Women Peacebuilders who Lack Financial Autonomy**. Many women working in peacebuilding in Asia, especially those in rural settings, lack financial autonomy and access to their own bank accounts. As such, they often lack control over their funds. Use of secure cryptocurrency exchanges could provide one way to compensate such women securely and in a way that ensures they are the sole owners of their funds. More research is needed to understand if/how such measures could be implemented, particularly in countries with fragile financial infrastructure and/or cultural barriers that severely limit women's financial autonomy.

4. **Metaverse-based Immersive Mediation Simulations**. The burgeoning field of metaverse applications, including virtual reality and augmented reality-based solutions, presents new opportunities for gender-responsive mediation and peacebuilding. 3-dimensional, immersive simulations that replicate real-world scenarios could enable women peacebuilders to practice and enhance their skills in a risk-free virtual environment. For example, the UN Verification Mission in Colombia employs Virtual Reality (VR) storytelling, specifically the documentary "Pathways Colombia," to convey the challenges and opportunities in consolidating peace.[10] The reactions from Colombian women and men peacebuilders who experienced the VR documentary so far indicate its unique ability to foster empathy-building by allowing peacebuilders to experience situations from multiple perspectives.

[9] Rusaid, Emmy; Mukund, Aditi; John, Anshika; Shah, Kadambari. Interview. Conducted by Priyank Mathur. 8 November 2023 – 14 November, 2023.
[10] https://media.un.org/en/asset/k17/k17dvzaozq

5. **Increased Collaboration Between Women CSOs/peacebuilders and Technology Companies to Foster Development of PeaceTech for Women.** The pace of technological progress continues to accelerate, especially with regards to emerging fields such as AI, the metaverse and quantum encryption. It is essential that the development of these powerful technologies does not exacerbate biases and challenges faced by women peacebuilders and instead helps mitigate them. To enable this, women peacebuilders, CSOs and HRDs must collaborate closely with technology companies to help inform the development of new and emerging PeaceTech tools for women. UN Women Asia could lead in the creation of mechanisms that bring together women peacebuilders, HRDs and CSOs from across the continent with product teams at leading technology companies. Events such as 'PeaceTech for Women' hackathons and roundtables could lead to the development of new technologies that support the work of women peacebuilders. Longer-term partnerships between women peacebuilders and technology companies could aim to ensure that women are represented in product, policy and legal teams at technology companies and that the views of women peacebuilders are incorporated into product roadmaps for future technologies.