The Basel Peace Forum 2018 intended to inspire new and unconventional ideas for peacebuilding. About 150 decision-makers from business, diplomacy, academia and civil society from 20 countries met on 14 and 15 January in Basel to rethink peace. Linkages between peacebuilding and health, architecture, artificial intelligence as well as risk analysis took center stage.

CRITICAL REFLECTIONS ON THE INNOVATION FORUM “A ROBOT FOR PEACE? THE POTENTIAL OF ARTIFICIAL INTELLIGENCE”

by David Lanz

OVERVIEW

This innovation forum discussed the potential of Artificial Intelligence (AI) to contribute to peace. Two core ideas emerged from the discussion. The first was to extend the principles of humanitarian robotics to the field of peacebuilding, for example by using drone images for early warning or by developing algorithm-moderated online dialogue platforms. The second core idea is to set up a competition to imagine the contributions of AI to peacebuilding in the future, triggering a broad debate about this issue as well as developing specific technical solutions.

RECITALS

The innovation forum ‘A Robot for Peace – The Potential of Artificial Intelligence’ featured two expert speakers. Raj Madhavan, founder and CEO of Humanitarian Robotics Technologies LLC based in Maryland, USA, and Hans-Arthur Marsiske, freelance author and journalist from Hamburg, having written about topics such as outer space and life, robots, and AI. Ursula König, mediator and consultant with Ximpulse in Switzerland, facilitated the innovation forum.

The introductory presentations, and the ensuing discussion, revolved around the use of AI in warfare and peacebuilding. Concerning lethal autonomous weapons systems (LAWS), Mr. Madhavan usefully distinguished different levels of autonomy with humans ‘in the loop’ (weapons functioning with human command), ‘on the loop’ (weapons with human oversight), and ‘off the loop’ (no human input). The latter (i.e. LAWS with humans off the loop) is highly problematic from an ethical and legal perspective and its development and use should not be permitted. All autonomous systems raise difficult ethical, legal, political and technical challenges that need to be better understood and addressed.
Drawing on this, Mr. Marsiske encouraged a broad debate in society about what machines are able, and should be able to do, and what not. He opined that at the current speed of development, the onset of autonomous robots might only be decades away. Society is not prepared for this at all. One important question concerns how to optimize the use of technology for peacebuilding purposes, rather than for warfare. This draws on a core idea of last year’s BPF workshop on artificial intelligence, namely that development efforts need to focus away from the use of AI in weapons systems and towards its potential for promoting peacebuilding.

**CORE IDEA 1: HUMANITARIAN ROBOTICS & AUTOMATION IN PEACEBUILDING**

The first core idea relates to the notion of humanitarian robotics and automation, which aims to provide cost-effective technologies geared towards improving the quality of life, in particular in communities in distress. Mr. Madhavan cited an example from his work in Brazil, where he collaborated with a local university to deploy drones for recognition of disaster risk areas. The first core idea, therefore, is to extend the principles of humanitarian robotics to the field of conflict prevention and peacebuilding and to develop a number of dual-use technologies for this purpose. Participants of the innovation forum discussed concrete ideas in this connection. Three of them deserve mentioning, ranging from feasible to rather futuristic:

- The first idea is to optimize the use of drone images in collecting and collating information about conflict situations. These images can be used, for example, for early recognition of conflicts patterns for the purpose of prevention or for monitoring of ceasefire agreements, as the OSCE Special Monitoring Mission to Ukraine does in eastern Ukraine.
- A second idea is to use big data technology to create platforms allowing a large number of people to participate in peace talks through open online platforms. People could communicate with each other and exchange messages, videos, and documents with negotiators in peace talks. Such platforms could be used as collaborative tools to identify, establish and visualize key messages (e.g. with word clouds), creating networks of interest groups (e.g. connecting those using the same key words).
- A third idea would be to conduct cutting-edge research exploring the nexus between neuroscience and peacebuilding. The advent of AI and big data in peace and conflict requires a deeper understanding of the role of cognitive sciences in human political and social behavior. Emerging fields like neurophilosophy, and moral philosophers interested in neuroscience, are bringing forth revolutionary ideas about how neural processes in the brain impact the way we perceive a broad range of political phenomena, from conflict drivers to wielding political influence to conducting peace negotiations. This research would be innovative and inter-disciplinary in nature, bringing together fields such as political science, evolutionary psychology and neuroscience.

**CORE IDEA 2: A COMPETITION TO IMAGINE ‘PEACE-DORA’S BOX’**

The second core idea relates to the need, highlighted by Mr. Marsiske, for a broad dialogue in society about the role, contributions, and problems of the increasing use of AI, including a dialogue about AI’s potential to cause, and help resolve, conflict. Different communities, including technology experts, neuroscientists, sociologists, lawyers and philosophers, should participate in this dialogue. Mr. Marsiske pointed to the usefulness of competitions, putting out a challenge related to a long-term vision, encouraging diverse teams to develop solutions and sharing the results. Therefore, the second core idea is that a competition be set up to imagine the role of AI in peacebuilding. The competition would be held in two stages. In the first stage, the challenge would be to develop a scenario, imagining how AI could support peacebuilding; how specific technologies could look like, but also what ethical, political and legal problems could arise in this context. The second stage of the competition would then be to develop concrete solutions for the challenges identified in the first stage, making these broadly available, and suggesting ideas for implementing these solutions.
CRITICAL REFLECTIONS

The innovation forum on Artificial Intelligence gave rise to a rich discussion and generated a number of interesting ideas, even if the feasibility of these ideas varies. The idea of an optimized use of drones in peace promotion seems to be particularly interesting and for the next edition of the Basel Peace Forum a workshop could be dedicated to this topic, bringing together representatives of the peacebuilding field, technical experts, and companies producing drones. The idea of a competition to imagine how AI and digital technologies could contribute to peacebuilding is also worth considering, as an annual prize could be awarded at the Basel Peace Forum.

Reflecting on these ideas critically, four more problematic aspects come to mind. First, there is a danger that the use of AI for humanitarian purposes legitimizes the use of technology in other fields, including in weapons' systems. One of the ways to counteract this is to insist on a prohibition of ‘off the loop’ weapons. Second, the legal and regulatory framework regarding the use of AI is seriously underdeveloped. This is especially problematic when it comes to the use of AI in the military and in law enforcement, but also with regard of its use in big data management. A broad dialogue on AI is necessary, as is the development of new legal frameworks, or the extension of existing frameworks, specifying what is permitted and what is not regarding AI, and who is responsible. Third, as far as the use of AI in peacebuilding is concerned, it is important to be realistic about what AI can achieve, and what it cannot. It can support and facilitate processes, making them more inclusive and transparent, but it is not a silver bullet to overcome conflicting interests and the lack of political will in conflict situations. Fourth, the use of big data poses governance problem in terms of who sets the rules, how to ensure transparency, who ‘owns’ data, and how to deal with bias in algorithms.

ABOUT THE AUTHOR

Dr. David Lanz is the head of the Mediation program at swisspeace, which aims to make peace processes more legitimate.

FOLLOW UP

Ursina Bentele is the training and research coordinator at swisspeace and will accompany the follow up of the working group on “Artificial Intelligence & Peace”. (ursina.bentele@swisspeace.ch)