
HCI for Peace: From Idealism to Concrete Steps

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Abstract

This panel will contribute diverse perspectives on the use of computer technology to promote peace and prevent armed conflict. These perspectives include: the use of social media to promote democracy and citizen participation, the role of computers in helping people communicate across division lines in zones of conflict, how persuasive technology can promote peace, and how interaction design can play a role in post-conflict reconciliation.

Keywords

Peace, war, social media, Cyprus, value sensitive design, post-conflict reconciliation, persuasive technology.

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms

Human factors, design.

Introduction

Peace is an important value for many in the human-computer interaction community. Evidence of this is the interest surrounding the HCI for Peace initiative at CHI

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2010. Over 500 individuals at the conference wore peace ribbons and, to a greater or lesser degree, engaged with others at the conference in conversations about the intersection of technologies and possibilities to promote peace and prevent violence.

The interest in developing technologies to support peace is clearly present in our research community. However, the topic of peace presents serious challenges if we are to move forward and form a community around it. In particular, it can be quite challenging to agree on where to begin conducting research to address such a broad and difficult issue.

This panel aims to bring diverse perspectives on how computer technologies can be used to promote peace and prevent conflict. These perspectives include: the use of social media to promote democracy and citizen participation, the role of computers in helping people communicate across division lines in zones of conflict, how persuasive technology can promote peace, and how interaction design can play a role in post-conflict reconciliation.

Our Panelists

Each of the approaches proposed by the panelists is supported by the literature. Several researchers, for example, have studied the factors that increase and decrease the likelihood that a country will participate in an armed conflict. From this research, it is clear that democracy, for example, decreases the likelihood that a country will participate in armed conflict [7]. Likewise, the use of social media and communication technologies can be important in reducing the social distance between perceived enemies, which has often been cited as a facilitator to armed conflict (e.g., [4]).

Our panelists will discuss these and other issues as outlined below.

Ben Shneiderman

Ben Sheiderman is one of the founders of the field of human-computer interaction. Ben is a Professor in the Department of Computer Science, Founding Director of the Human-Computer Interaction Laboratory, and Member of the Institute for Advanced Computer Studies at the University of Maryland. He was made a Fellow of the ACM in 1997, elected a Fellow of the American Association for the Advancement of Science in 2001, elected a member of the National Academy of Engineering in 2010, and received the ACM CHI Lifetime Achievement Award in 2001.

For more than 20 years, Ben has been advocating for designers of technology to take into account the impact of their creations on society. This has included calls to consider the impact of technologies on peace and democracy [8]. More recently, with Harry Hochheiser, Ben has promoted the idea of social media being applied to create increased citizen participation that leads to better communication, transparency, and engagement in democratic processes [6]. This will be the focus of Ben's participation in the panel.

Panayiotis Zaphiris

Panayiotis Zaphiris is an Associate Professor at the Department of Multimedia and Graphic Arts of the Cyprus University of Technology. One of his main interests is in the social aspects of computing. He is very active in the human-computer interaction community and has served as Associate Chair of the CHI conference.

Panayiotis will bring the perspective of coming from a part of the world that has seen armed conflict in his lifetime. The Cyprus perspective is quite interesting as it is a small country, yet for many years people across the dividing line were not even allowed to meet face to face. The only way to communicate was to use the Internet. Panayiotis helped setup mailing lists in the 1990s to bring people together and discuss ideas. In the late 90s, he helped develop social media applications to report news across the dividing line. This year, Panayiotis is starting a new project to use human-computer interaction approaches to develop online tools that can facilitate peace and mutual understanding among groups in conflict.

Batya Friedman

Batya Friedman is a Professor in the Information School, and an Adjunct Professor in the Department of Computer Science and Engineering, at the University of Washington where she Co-Directs the Value Sensitive Design Research Laboratory. Batya's research interests include human-computer interaction, especially value sensitive design, social and cultural aspects of information systems, multi-lifespan information system design, and design theory and methods. Her work on Value Sensitive Design has focused on the values of informed consent, privacy in public, trust, freedom from bias, moral agency, and human dignity, and engaged such technologies as web browsers, large displays, mobile technologies, urban simulation, robotics, open-source code bases, and location-enhanced computing.

Batya will contribute to the panel by discussing her experiences in post-conflict reconciliation in Rwanda. In 2008 Batya led a team that recorded interviews with

members of the United Nations International Criminal Tribunal for Rwanda. She and her colleagues are now beginning to work on ways to make the materials accessible to as wide an audience as possible [1]. Batya will discuss challenges and early success stories from experiences in Rwanda and Congo. In addition, she will address the complexities of assessing information systems that aim to have a positive impact on problems, such as post-conflict reconciliation, that can unfold over long periods of time [2].

Mark Nelson

Mark Nelson is a Researcher at the Stanford Peace Innovation Lab [1]. The lab seeks to use computing technology to influence people to pursue peace.

Mark will contribute to the panel by providing the perspective of promoting peace and preventing conflict through persuasive technology. More specifically, he will discuss the EPIC challenge project (Earthwide Peace Innovation Collaboration Challenge), which takes an open-science approach to measurably reduce violence.

Organizers

Juan Pablo Hourcade and Natasha Bullock-Rest are organizing the panel. They started the HCI for Peace initiative, recruiting peace ambassadors at CHI 2010 and keeping a blog that celebrates human-computer interaction research related to peace [5]. In addition, Juan Pablo wrote an alt.chi paper for CHI 2009, making a call to design technologies for peace [7]. Juan Pablo is an Assistant Professor in the Department of Computer Science at the University of Iowa. Natasha worked with Juan Pablo on HCI for Peace while she was a student at the University of Iowa.

Expected Outcomes

We expect that the diversity of perspectives and experiences in the panel will provide the audience with many topics for discussion and will encourage participation. In their presentations, the panelists will situate their experience at the intersection of HCI and peace building then discuss one specific project. This will be followed by questions to the panelists asking them about the role HCI can realistically play in armed conflict prevention and resolution, the difficulty in addressing multiple perspectives during conflict, the role of socio-political contexts, the challenge in assessing the positive and negative effects of interventions, and how we can best identify the situations where digital technologies can help with peace building.

We will encourage the audience to add their own perspectives on how to use computing for peace, and to engage with our panelists in constructive discussions. Through these discussions we hope that the panel will encourage more individuals in our research community to seriously consider conducting research in this topic and join others in a new research community.

Acknowledgements

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Citations

- [1] Friedman, B., Nathan, L.P., Grey, N.C., Lake, M., Nilsen, T., Utter, E., Utter, R.F., Ring, M., and Kahn, Z. (2010). Multi-lifespan information system design in post-conflict societies: An evolving project in Rwanda. *Extended Abstracts of CHI 2010 Conference on Human Factors in Computing Systems*, 2833-2842. New York: ACM Press.
- [2] Friedman, B., and Nathan, L.P. (2010). Multi-lifespan information system design: A research initiative for the HCI community. *Proceedings of CHI 2010 Conference on Human Factors in Computing Systems*, 2243-2246. New York: ACM Press.
- [3] Fogg, B.J. (2010). *Peace Innovation*. Available at <http://peace.stanford.edu/>
- [4] Grossman, D. (1996). *On Killing: The Psychological Cost of Learning to Kill in War and Society*. Boston: Back Bay Books.
- [5] HCI for Peace (2010). *HCI for Peace at CHI 2010*. Available at <http://hciforpeace.blogspot.com/2010/05/hci-for-peace-at-chi-2010.html>
- [6] Hochheiser, H. and Shneiderman, B. (2010). From bowling alone to tweeting together: technology-mediated social participation. *interactions* 17, 2 (Mar. 2010), 64-67.
- [7] Hourcade, J.P. (2009). Give Peace a Chance: A Call to Design Technologies for Peace. *Extended Abstracts of CHI 2009 Conference (alt.chi)*. ACM Press: pp. 2499-2508.
- [8] Shneiderman, B. (1991). Human values and the future of technology: a declaration of responsibility. *SIGCHI Bulletin*, 23 (1), 11-16.