HCI for Peace Ideathon

Juan Pablo Hourcade
University of Iowa
Iowa City, IA 52242 USA
juanpablo-hourcade@uiowa.edu

Lisa P. Nathan
University of British Columbia
Vancouver, BC V6T 1Z1 Canada
lisa.nathan@ubc.ca

Panayiotis Zaphiris
Cyprus University of Technology
Limassol 3603 Cyprus
panayiotis.zaphiris@cut.ac.cy

Massimo Zancanaro
FBK
38100 Trento Italy
zancana@fbk.eu

Evangelos Kapros
Trinity College, U. of Dublin
Dublin 2 Ireland
ekapros@tcd.ie

John C. Thomas
IBM
Hawthorne, NY 10532 USA
jcthomas@us.ibm.com

Daniela K. Busse
Samsung
San Jose, CA 95134 USA
d.busse@sisa.samsung.com

Abstract

Computers are increasingly mediating the way people make decisions, including those that can have an effect on conflict and peace. In addition, recent research provides empirical data on the factors that affect the likelihood of armed conflict. These conditions provide an unprecedented opportunity to the human-computer interaction community to play a role in preventing, de-escalating, and recovering from conflicts. This SIG will be the first opportunity for CHI attendees to meet during the main part of the conference, share their ideas, and provide concrete ways to move forward with this line of research.

Author Keywords

Peace; conflict; social media; mobile devices.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

Armed conflicts are extremely costly both in terms of money and lives. As we mentioned in a recent article [3], the number of deaths as a direct result of war and doctrinal conflicts during the 20th century was equivalent to two September 11 attacks every day for the entire century. In terms of monetary expenses, the amount of money directly spent by the United States in

the Iraq and Afghanistan wars between September 11, 2001 and March of 2011 would have been enough to rebuild every primary and secondary school in the United States, something that could arguably be a 100-year project.

The wish for peace among humans is likely as old as war. War prevention, de-escalation, and recovery, has largely been the realm of political, philosophical, military, and religious fields, and for the most part has not involved the use of empirically based methods. The past 15 to 20 years though, have seen an increase in the number of studies aiming to identify and understand factors that increase and decrease the likelihood of armed conflict [2]. This trend has only increased in the past few years with a highly publicized book by Steven Pinker providing an extensive study of these factors [5], and an issue of *Science* providing multiple empirical perspectives on the topic [6].

Today human-computer interaction researchers have more opportunities than ever to contribute to this area of research due to the increasing role computing devices play in interactions between people. This is true not only in higher-income countries, but is increasingly true in lower-income countries as well, where a majority of individuals are gaining access to mobile phones (see http://www.itu.int/ITU-D/ict/statistics/).

This new situation provides an unprecedented opportunity for the human-computer interaction community to have a positive impact on humanity, designing technologies to prevent, de-escalate, and recover from armed conflicts. Our world can be no brighter than the worlds we dream of.

HCI for Peace has been a grassroots initiative bringing together researchers and practitioners with an interest in this topic. Previous events at CHI have included an informal brainstorm, a paper presentation, a panel, and a workshop. There has never been an opportunity for the community to come together during a SIG, to share ideas during the main part of the conference.

Topics

The main aim of the SIG is to develop specific ideas on how the HCI community can play a role in preventing, de-escalating and recovering from conflict. We plan to use the time allotted by the SIG to have a focused opportunity for brainstorming and sketching ideas that can then be presented to the larger HCI community as design challenges.

We plan to begin the session with brief introductions followed by a creativity enhancing exercise. The primary organizer will provide background on the HCI for Peace initiative, followed by short presentations on seed ideas for sketching and brainstorming. We outline these seed ideas below. Besides these, we expect that attendees may come up with their own topics. We will then ask self-selected groups to form around specific topics and start brainstorming and sketching ideas on easel pads. We do not expect that all topics will be picked up by a group.

Social Media

People are increasingly expressing and forming their opinions about politics and other groups of people through social media. The past few months have seen examples of social media playing a role in political events throughout the world, from the campaign against the PIPA/SOPA bills in the United States, to the

political change in North Africa, particularly in Egypt and Tunisia. The question that remains is how to design social media apps so that they will make it more likely that the outcome of interactions will be peaceful instead of violent.

Examples of how this can occur are found in applications used to facilitate communication between people from opposing camps. This can lead to seeing people in other regions as individuals with unique personalities instead of the faceless enemy, and can help us better understand our common humanity.

Mobile Devices
Mobile devices can play a role first by providing computing, communication and information access to increasing numbers of people. Even in developing regions, access to mobile phones is quickly reaching a majority of the population. As such, they can be a platform for any number of peace-oriented apps developed.

An additional way in which mobile devices can help is as media recorders. If people planning violence know that there is almost certainty that their acts will be recorded and quickly shared with others, in most cases, this is likely to act as a deterrent. At the very least, it is likely to make those who are neutral in a conflict, less likely to support those waging the violence. Examples include world reaction at beatings of protesters in Tahrir Square in Cairo during protests against the rule of President Mubarak, and reaction in the United States against beatings of students at California universities in 2011.

Presentation of News
In most regions of the world, the presentation of news is largely dominated by governments or a few corporations, which may have interests in presenting groups of people in particular ways. Interactive technologies provide opportunities for bottom-up journalism, with news and footage coming directly from people experiencing them. We need to develop novel solutions to address large amounts of first-hand accounts while balancing perspectives. Another way to provide multiple perspectives is to present the same story from multiple sources.

Negotiation and reconciliation
Conflicts often produce barriers among people. Negotiation can often prevent conflicts from escalating, and facilitate mutual understanding. Interactive technologies have the potential of aiding negotiation processes by helping the parts visualize areas of agreement and disagreement and work toward a common understanding. An example of this work is the NNR-Table, which has been evaluated in work with Israeli and Palestinian youth [7].

Conflict Recovery
Technologies can also help after conflicts occur to aid communities recovering from death and destruction. An example of a technology that arose from the CHI community is the work of Lahiru Jayatilaka on low-cost landmine detectors [4]. Another example is the work at the University of Washington with the *Voices from the Rwanda Tribunal* project [1]. This project is providing a way for multiple generations to respond to the atrocities that occurred during the Rwandan conflict in the 1990s, with the hope that it will dissuade others from pursuing a similar path of violence in the future.

Consumer Information

In high-income regions of the world, consumer purchases can have strong effects on violence in other regions. Waging war requires funds, whether they come from diamonds, cocaine, oil, or some other commodity. In addition, there are other ways in which consumer decisions can lead to conflicts indirectly, for example, through environmental degradation. Mobile technologies, in particular, can potentially provide on-the-spot information on the impact of purchases and provide consumers with more educated choices.

Calming Technology

Emotion regulation and self-awareness can play a role in helping people reflect about their place in the world, and could result in more peaceful interactions with others.

Policy Initiatives

How should this research be conducted from a policy perspective? Who should participate? How should it be funded? What models should be used to share data?

Expected Outcomes

Toward the end of the session, we will ask each group to present their ideas, and we will record them. We will transcribe any ideas and photograph sketches to put together a set of research challenges for the HCI community. We will post these in the HCI for Peace blog and will look for additional outlets to publicize them.

We expect taking this extra step will ensure that the ideas that are developed during the session are not lost in the haze of conference activity and can inspire others to continue this line of research.

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