A Reflection on Using Technology for Reconciliation through Co-Narration

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Introduction

Over the past few years, we have been investigating how technologies, and in particular tabletop interfaces, can be designed to foster collaboration. One of our most interesting experiences has been working in the field of peace education with Israeli-Jewish and Palestinian-Arab adolescent boys by designing and assessing a tabletop application called Narration Negotiation and Reconciliation Table (NNR Table).

Our approach was to merge three notions. The first one comes from the social constructionist approach [e.g., McNamee and Gergen, 1999] which describes intergroup dialog as a crucial transformative process in which participants deal with disagreements through self-expression and listening to others. The second recognizes the pattern of escalation/de-escalation as a powerful mechanism to eventually lead to changes in attitude or to reconciliation [Winstok, 2008]. Finally, the third notion was that some constraints (purposefully designed) imposed through technology may scaffold collaborative behavior. We already succeeded in using this approach in other educational settings (e.g., for children with autism).

The design concept of NNR-Table

The NNR-Table is a 3-user application for two participants and a moderator whose aim is to support

the participants as they compose a shared narration. The central design concept is that certain kinds of action should be deliberately supported as individual contributions and others should be joint, thereby linking the intention of an action to its form. In particular for all novel contributed material and for insertion of points of disagreement (see below), there is a precise individual responsibility. We exploit the unique capabilities of a specific device, the DiamondTouch, to implement this concept. DiamonTouch [Dietz, 2001] is a multi-touch input technology that supports multiple, simultaneous users and it can distinguish who is touching the surface and where it has been touched. A similar approach may be extended to different types of devices such as smartphones or tablets.

In order to support escalation, the NNR-Table provides specific interface elements called PODs (Points of Disagreement) that can be dragged onto any part of a story to explicitly denote disagreement without preventing the story from continuing. These elements move the task into a "lose-lose" state (since the story cannot be completed before they are resolved) and make apparent the responsibility of the participants to recover from the disputed situation. To support de-escalation, the interface requires the use of collaborative joint physical actions before any material inserted by one of the parties may be discarded. This provides an opportunity for each participant to highlight his actions or reactions leading to clarification of how they will be construed by the other party.

The moderator does not directly operate the interface yet nonetheless has a fundamental role; by encouraging a proper use of the system, he guides the

escalation and the de-escalation of the participants' confrontation therefore gearing it toward a more effective outcome.

Assessment of the NNR-Table

We assessed the NNR-Table in two studies from 2006 to early 2011. The long duration of the studies were due to the need to cease data collection on several occasions due to overt conflicts in the region. The first study (reported in [Stock et al., 2008]) involved 9 pairs of Israeli Jewish and Arab youth who live in Israel. This initial study was designed to provide usability data as well as opportunities to test different elements of the methodology (e.g., use of a single language or simultaneous translation). A second, larger study involved 64 pairs of subjects: Israeli-Jews and Palestinian-Arab recruited in the outskirts of Jerusalem and the West Bank. We drew our sample from those segments of the Israeli and Palestinian populations that are known to have more nationalistic views. The study design was a between-subject, control study in which the NNR-Table was compared to a basic multi-media version that lacked the tools for conflict escalation and de-escalation. The results of this study, currently under review, indicate that the NNR-Table was more effective than the control intervention, in helping participants view the conflict in more moderate terms.

Lessons learnt and topics of discussion

From these studies we learned that our design approach may actually improve the chances for adolescents divided by a seemingly irreconcilable conflict to discuss and reach a common understanding on both a personal and a group level. We believe that the same approach may be used in other types of

conflict where the parties give highly different accounts of common experiences (e.g., intimate violence).

We have also learned that the "co-located" nature of the interface was of key importance since it appears that the actual sharing of space helps to make the "other" into a "significant other" [Bollnow, 1967]. On the other hand, co-location was also a source of logistic difficulties that may hinder the possibility of a wider use of this technology. An interesting line of research would be to compare different forms of "presence" in the virtual/co-located continuum with respect to the efficacy of communication, narration and conflict management.

Another important issue that arose in our studies was the impact of language. Communicating in one's own language is a fundamental aspect in these types of activities, even when one is fluent in the other language. In the course of the project we rigorously enforced the constraint of having each participant speak in his own language in order to avoid issues of dominance with regard to one culture over the other. We thought initially that the best solution was that each

contribution be translated into English as a neutral language. Yet, eventually we realized that the sociological groups who participated were not sufficiently proficient in English even for a passive understanding of the narrated sequences. We therefore resorted to a two-way, simultaneous translation performed by a moderator who was skilled in conflict management but not a profession translator. Although his translations were usually quite accurate, the interface itself did not support either discussion of specific terms nor an accurate selection of the most correct term. In future, we recommend that typed input, as opposed to spoken input, may allow greater technological support and a better understanding of the true communicative intentions.

Conclusion

At the workshop, we will briefly present the NNR-Table prototype and the results of our two studies. We can contribute by elaborating on the discussion of the topics outlined above. What we expect is to gain a better understanding of how technology can be designed for fostering peace and ideally working towards a common initiative with some of the workshop participants.

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