

Chapter 15

Peacemaker 2020

A System for Global Conflict Analysis and Resolution; A Work of Fiction and A Research Challenge

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Our knowledge of physics, chemistry, engineering, even psychology have all been used to develop weapons and approaches for winning armed conflicts. Especially the information sciences have been developed with a tremendous amount of funding and much of the initial motivation stemming from military needs and later developed with its funding. Robert Trappl has posed to the wider research community a fascinating question: Have our technologies and scientific approaches grown to the point that they can be applied to the much more difficult question of supporting the peaceful resolution of conflicts among nations? He has dubbed such technology “peacefare”. Sometimes it is easier to design a complex system by starting with a solution and working backwards. Hence I wrote a story. Since I am a computer scientist and technologist, my story is about the technology that could provide some enhanced basis for analysis of growing international tensions and possible mediation. This story also is a way of eliciting from our broad research community our goals, our assumptions, and the success criteria for a system like “Peacemaker 2020.”

1 THE STORY

PEACEMAKER 2020: A SYSTEM FOR GLOBAL CONFLICT ANALYSIS AND RESOLUTION

The year is 2050. The setting is a large auditorium in Brussels. Although a huge screen dominates the room, a number of listeners are also attending to small flat panels in their tables and listening intently through the simultaneous translation with earphones. Some are already exploring System 2020 software at their tables, while others are comparing notes with those listening to the lecture in Virtual

Worlds (Bellman, 1999; Bellman and Landauer, 2000b). The lecture today has been long awaited. Prof. Hope Field's group has spent over two years analyzing the thirty years of performance of the Peacemaker System 2020. She has been speaking for about a half hour on the history of, the motivation for, and the technical development of the Peacemaker System 2020, starting of course with the historical Vienna meetings in the early part of the 21st century.

She continues, "As one can see thus far, a lot of the impetus for data analysis in the early days of these technologies was to essentially learn the lessons of history and apply them, via intelligent decision aids, to human mediation that would decrease growing world conflicts or would mitigate ongoing conflicts. But now I come to the point in this talk where we have to ask ourselves 'What are our lessons learned? What have we learned over the last 30 years about this type of technology? What have we accomplished? What challenges do we still face?'

The hardest part was to recognize that the very technologies we had developed in the information sciences had amplified the ability of small, only partly connected groups of individuals to wage 'war' on major world cultures. That is, in the early part of the 21st century, we were just recognizing how much traditional warfare among nation states was changing into warfare waged by small groups loosely connected across nation states. Therefore we realized that the databases we had collected that had emphasized the political actions of nations had to be greatly enhanced in order to provide the basis for conflict resolution methods relevant to these small groups."

Immediately a question appeared on a sidewall in large red font, "What about groups of one, like the so-called 'snipers' or deranged individuals?"

She sighed, "Yes, I will get to that in my 'continual challenges' section. Realizing that we needed to expand to handle small groups and that we needed large and small group mediation techniques radically changed our notions of the technology we employed. In other words, we needed a much broader base of data and we needed a much broader base of methods to reach those small groups who were unlikely to be available to us through conventional means. Hence in a very controversial move, especially to certain security organizations in the US and in Europe, we decided to develop some handies with untraceable communication paths. That is we chose the longer-term