Chapter 6
Understanding the Consequences of Technology for Human Interaction and Health: Gunilla Bradley’s Pioneer Scientific Contribution

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ABSTRACT
Gunilla Bradley’s contributions to life sciences are reviewed and explained from a medical and public health perspective. She has developed a research excellence within the field of human interaction and computer technology that has implications that go far beyond her research field. This is because human interaction is crucial for generalized health and welfare of patients and populations. In addition, lack of social human interaction, also referred to as social isolation, is a major risk factor for heart disease, in men as in women. Linking the perspectives of human interaction, technology and health is a formidable task for the research tradition which Gunilla Bradley has created.

INTRODUCTION
I shall give a very personal testimony about Gunilla Bradley’s work. I will not try to make a well balanced review of Gunilla’s lifelong contribution to science. This is the task of other better positioned colleagues. But it is only natural to be impressed by her formidable list of scientific merits.

With a full background in psychology and computer technology, she has developed a research field around the encounter of human behaviour with computer based technology. She has served as a scientist of excellence in this field for several years, first at the Stockholm University Sociology Department, during which time she also was a guest visiting scientist at Stanford University, USA. She also served at the Universities of Umeå and Växjö. Her present appointment and maybe her most important contribution is with the Royal
University of Technology as a professor of informatics. She has been a constant creator of cross disciplinary exchange of knowledge between departments within the School of Technology.

When I first met Gunilla Bradley and made her acquaintance, I had learnt that she was an outstanding professor at a Swedish Technical university. But her position and merits were unimportant, in comparison to the impression she made during our conversations.

We met over a dinner buffet at a friend’s house. Somebody mentioned her name and started talking about her science, and then someone called me by name. And all of a sudden we were looking at each other realizing we had just met. And then we talked as if we had known each other for years.

Some of the things we talked about are worth mentioning here. They reflected our mutual engagement in what we were doing in our respective scientific areas. But it was also a practical exercise in interactive cross-disciplinary exchange. And because the scientific areas that we represent are very much concerned with each other, and because they depend and benefit from each other, I think they merit being reflected in this Festschrift. I will try and describe our mutual perspectives and merge them into a whole picture (Bradley, G Humans on the Net – Information and Communication Technology (ICT), Work Organisation, and Human Beings)

My own perspective “human interaction and health” is concerned with research and practical experiences around social networks and social support on the one hand and health outcome on the other. Viewing the field from the perspective of “technology and human interaction” Gunilla is concerned with the complex and difficult interface between human minds, human behaviour and human emotions on the one hand and their encounter with technology development on the other. Merging the two perspectives together may result in strategies for using new technology to improve social interaction, improve quality of life and to enhance health.

Gunilla Bradley has been a pioneer in her efforts to create an understanding of what happens with humans when they meet with and adapt to technology, summarized in her book “Social and Community informatics” Routledge 2006). But her contribution to our knowledge goes far beyond behaviour and technology; it also has consequences for the understanding of health effects of social interaction and social ties. For us to better understand the significance of Gunilla Bradley’s work in humans, it is important to understand health effects of the social network interactions.

**SOCIAL INTERACTION AND HEALTH: QUANTITY OR QUALITY OF INTERACTION?**

The significance of social interaction for health has been intensively researched for three decades. A population based study from the Alameda County, California, was the first to show that the more frequent the social contacts, the healthier were the populations.

A burst of reports that more or less confirmed these results followed upon their study, so that in 1988 it was reported in Science about the agreement among researchers that

the number of contacts and their benefit for longevity...are surprisingly similar (House, et al Science 1988).

Two Swedish studies were among the cited ones. The first study was derived from 50 year old men in Göteborg and reported in the Lancet in 1985. The second study was from the adult Swedish population, from which data on social network interaction was obtained as part of the Swedish Survey of Living Conditions, and reported in the J Chronic Diseases, 1987. Both studies had followed their study groups for five years or more and found frequent social contacts to be health promoting (House et al 1988).