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# Exploring the Abyss of Inequalities

4th International Conference on Well-Being  
in the Information Society, WIS 2012  
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Proceedings

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# Foreword

The Well-Being in the Information Society (WIS) conference series witnessed its fourth event this year. Yet the key concepts were already introduced 8 years ago, as the conference is biannual. This raises the question of whether the conference is like a 4-year-old child learning basic things about life or has it already reached school-age, learning new things systematically and with professional guidance.

This works as a metaphor for the special topic of our conference this year: disabilities, access to resources, impairment and asymmetric capabilities. What do you do when you look like an 8-year-old and are expected to behave like one, but for one or another reason you have only some of the expected capabilities?

The WIS conference series was established to discuss topics around health and well-being, the information society, and an urban (maybe also as a metaphor for modern) way of living. The conference is clearly multidisciplinary in its nature. Keynotes and accepted contributions of the conference program deal with at least two of the main topics of the conference, at best with all of them. As far as we know the brand of the conference is unique in its nature in the world.

Our current topic, unequal access to information society resources, is continuously gaining importance. Two big trends should especially be mentioned. First, the empowerment of individuals is a central topic, not least in medicine. Individuals must take the lead and manage their lives, including their health and well-being. This puts pressure on them and demands good access to information society resources. Second, society is in transition toward self-service at all levels and it is not possible to simply lean on the support of others when performing your daily activities. This is witnessed in the emergence of e-everything: e-health, e-business, e-service, e-government, etc.

What then are these information society resources that we refer to? They are simply all services and resources people need for a normal life, but the key issue is that they are all solely or most easily available through computer interfaces and networks. These include, for example, banking services, health information, entertainment, education, contacts to other people, say, through social media, and public services of almost all kinds.

Both trends put special pressure on people who have disabilities in one way or another. Those with health-related and functional problems with senses such as vision and hearing impairments are the hardest hit when it comes to information processing, but also problems related to moving from one place to another or motor coordination can heavily influence the use of information society resources. To take full advantage of, say, modern computer user interfaces, one should have complete vision, hearing, and motor coordination.

One important issue, however, is to understand that we are all influenced: we are all disabled in one way or another. To take a simple example: we are not all able to speak and communicate (we are deaf and mute) in 99% of the

world's languages. Actions taken to improve the life of disabled individuals are supportive also toward the life of "normal" people, they very seldom, if ever, are in contradiction with the needs of the general population.

Information technology must not simply be regarded as a problem and challenge for the impaired. On the contrary, it provides a plentitude of solutions and possibilities for all, including those with disabilities. The challenge is to make demand and supply meet, and this work must often be very detailed and professionally supervised. To make this happen, conferences like WIS are needed.

We are well aware of the fact that we are discussing a very sensitive topic in this year's WIS conference. Many people are at the very core of the phenomenon discussed, and might have a sensitive and personal connection to the topics at hand. We recognize that the conference material might include opinions and thoughts that are not accepted by everyone. We apologize already in advance should this occur. However, it must be accepted that we are all learners even here and that things never improve unless we initiate discussion and actions, even when not being fully routinized and, hence, in this respect also impaired.

We want to express our gratitude to all those who contributed to the organization and establishment of the conference this year. The authors and Program Committee members were in the central role, through contributing and further elaborating the scientific contents of the conference. Scientific conferences could not take place without a huge group of supporters. A great number of individuals contributed by personal work, and dozens of organizations placed their resources and valuable time to the disposal of the conference organization even this year. Your number is too great to allow individual acknowledgment here, but we wish to thank you all very much!

An academic conference is like life itself: the key is to meet people and interact with them. As this obviously is not always possible for all of us, reading the proceedings is the second best option. In this we wish you educative and illuminative moments.

Reima Suomi  
Sakari Suominen

## Editors' Preface

Health and well-being are for most people one of the most highly valued things in life, and even more so when we are unhealthy or do not feel well. Today, there are numerous possibilities to maintain our health or to manage in the world, as modern information society offers so many possibilities and tools that were not even present as recently as a decade ago. Still, it is a fact that many people either do not have access to or cannot profit from the available information.

Some trends that are more or less directly connected to health and well-being are clearly visible, not least in the Western world: the society is ageing, the number of people with non-communicable diseases is evermore growing, and more and more people live in urban areas. Since its start in 2006, the biannual conference Well-Being in the Information Society (WIS) has gathered researchers and professionals focusing on topics like health, information, and urban living to discuss these important issues. In 2012, the focus of the 4th WIS conference was on *exploring the abyss of inequalities* in our society. The world we live in is far from equal, and even if we only look at a small geographical area there are many inequalities: people of different ages, in different socio-economical or health situations, or with different kinds of disabilities and impairments have different needs, skills, and abilities to master information in the context of health and well-being. Health service providers, information providers, and designers of information systems and technological solutions all aim at minimizing these inequalities. The goal of this conference is to let these professionals meet and thereby support this work.

These proceedings contain 14 of the full papers that were accepted for presentation at the WIS 2012 conference. They cover five of the themes that are at the core of the conference: e-health, measuring and documenting health and well-being; empowering and educating citizens for healthy living and equal opportunities; governance for health; safe and secure cities; and information society as a challenge and a possibility for older people. The papers, authored by researchers originating from different parts of the world, contain both theoretical and practical approaches to the themes. Whether describing the current situation, addressing gaps, or suggesting solutions, the papers hopefully give the reader new insights and open up new ideas on how to tackle the abyss of inequalities in the rapidly changing information society. In doing so, yet another small piece is added to the gigantic puzzle.

Kristina Eriksson-Backa  
Annika Luoma  
Erica Krook

# Organization

WIS 2012 was organized by the University of Turku (Turku School of Economics and Faculty of Medicine) and Baltic Region Healthy Cities Association (WHO Collaborating Centre for Healthy Cities and Urban Health in the Baltic Region) in cooperation with Turku Centre for Computer Science, Åbo Akademi University, Social Insurance Institution of Finland, and Turku University of Applied Science.

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