
The Human Factors of the Information Society

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Abstract

With the rapid introduction of highly sophisticated computers, (tele-)communications, service and manufacturing systems, a major shift has occurred in the way people use technology and work with it. Information Society Technologies are omnipresent not only in the workplace, but also in a variety of everyday life activities. The technological paradigm is gradually evolving towards interaction-intensive, collaboration intensive, group-centred, distributed (across the Global Internet) computing. This evolution creates new challenges for Human-Computer Interaction, and for the Human Factors field in particular. The latter is faced with the requirements posed by the diversification of target user groups, and the consequent shift from systems designed for professionals to systems designed for everyone, the proliferation of technological platforms and the appearance of a variety of different devices, and, finally, the shift from desktop based access to computer systems to ubiquitous access. Clearly, these challenges necessitate a systematic and well-structured engineering approach to Human-Computer Interaction, capable of studying, modeling and understanding context, of evaluating adaptable and adaptive behaviors of interactive systems, of understanding different user categories and their physical / cognitive / communicative / perceptual characteristics. In this context, Human Factors have several contributions to make towards the design of universally accessible and usable Information Society Technologies. Firstly, the rigorous experimental approach typical of Human Factors evaluation can constitute a solid base for capturing and understanding user requirements. Secondly, high-level principles and design guidelines, such as human-centred design, can inform the design process of such technologies. Some of these guidelines are explicitly focused on delivering access for disabled and elderly people.