Ambient Intelligence
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Technology developments in the area of storage, connectivity and displays is evolving at an incredible pace. Examples include the blue-ray disk, flexible displays and new low power wireless protocols. Following Moore's law, technology performance indicators double every 18 months. Although such developments might trigger innovative application- and service scenarios, there is a potential problem with regard to their social acceptance. Aspects such as information overload, violations of privacy and general lack of trust threaten the introduction of these technologies into our day-to-day life.

The vision of Ambient Intelligence has been conceptualized to provide an answer to this dilemma. In this vision, human needs are positioned centrally and technology is seen as a means to enrich our life. Ambient Intelligence refers to electronic environments that are sensitive and responsive to the presence of people. Essential in this vision are the aspects of embedding and intelligence. Embedding can be both physical and social. While physical embedding is facilitated by miniaturization and by bringing down costs of technology, social embedding refers to the demand that technology will become an integral part of our life by supporting, rather than disturbing, the emotional significant moments of our life. Intelligence can range from context-awareness to more personalized and even adaptive systems.

Inspired by the experience economy, Ambient Intelligence systems will make user-system interaction and content consumption a truly positive experience. Examples of experiences supported by immersiveness, system intelligence and freedom have been investigated in the Philips HomeLab. This HomeLab offers a unique scientific environment for evaluating the feasibility and usability of technologies used in the realization of Ambient Intelligent scenarios. Equipped with an extensive observation infrastructure of 34 cameras and microphones, the HomeLab has enabled behavioral researchers to study the effect of innovative technologies on the user's acceptance for Ambient Intelligence.

Boris de Ruyter studied Experimental Psychology at the University of Ghent, Belgium. After graduating he worked as a research assistant at the University of Antwerp, Belgium. In 1994 he joined Philips Research where he has been working on user - system interaction research. His research focuses on user modeling and psychometrics. Since 1999 he is heading a research team that works on the development, prototyping and testing on user interface concepts for supporting users in accessing large databases of content in CE devices. The team has experience in the area of multi-modal, personalized and networked systems.