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**From the Editor in Chief**

# EVOLVING TECHNOLOGIES FOR A VARIETY OF HUMAN PRACTICES

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The fact that virtually every facet of life in the 21st century is imbued with technology is no revelation. From the most public aspect of life to the most private, technologies have been created and continue to be created to allow immediate and easy access to data that enhances one's experiences and activities and facilitates human interaction. In some ways, our technology-rich lives today are the stuff of science fiction just a generation or three ago.

The technological tools for accessing, manipulating, and sharing vast amounts of information and building knowledge in diverse ways have had a strong focus in human–technology research. This involves not only the focus of the research, but also the means by which researchers gather, analyze, and report on their investigations. The implications for student learning, thus, are immense. Contemporary cohorts of students, particularly in knowledge societies, are expected to be skilled in self-discovery, inquiry-based approaches, and critical thinking, as well as possess skills in community building and social networking. Of course, as members of the Internet society, many students have been immersed in technology since birth. Increasingly, technology forms the framework for education, business, hobbies, entertainment, creativity, communication, healthcare, transportation, and many other aspects of life.

Yet, as technologies are being continually developed, with new replacing "old," and as technologies become increasingly integrated with each other and become embedded within various human practices, it becomes clear that speculations and assumptions about the experiences of users and the outcomes and challenges of technology use will not advance the understanding of the role of technology in modern life. Thus theoretically sound and empirically grounded research is needed to explore the wide swath of technology applications—such as creative communities and social networking, telepresence in mediated communication, user experiences of virtual and 3D environments, and location-based services, to name a few.

Recent trends in the field of human–technology research have emphasized the potential of ubiquitous computing in supporting self-initiated and interest-driven activities, often in the contexts of informal learning, hobbies, or other everyday activities. Mobile tools, the social Web, and handheld devices have opened up new possibilities that go beyond intentional learning, in activities both within a set location and in the "great outdoors." And, as is typical for ubiquitous


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computing, users are not necessarily even aware they are using an application and are most likely unaware of the complexity of design within a "simple" handheld device.

One recent trend in ubiquitous computing is related to location-based services. A variety of disparate services and physical locales, such as museums, nature reserves, and tourist attractions, mediate informal learning through location-based technologies (FizGerald, 2012). However, it is not only about physical mobility brought about by the wireless mobile technologies, but also how location-based technologies (e.g., GPS) enrich the learning context in many ways. The fluidity of context is created by a multitude of interacting people and the immediate and greater environments, as well as the result of the tools or resources used (Sharples, Milrad, Amedillo Sánches, & Vavoula, 2009). At its best, mobile tools can deepen the integration of activities that occur across multiple spaces, both inside and outside the classroom (Dillenbourg & Jermann, 2007), as well as in public, community, private, and intimate settings alike.

This issue of *Human Technology: An Interdisciplinary Journal on Humans in ICT Environments* presents research regarding the possibilities and challenges of human technology from the perspectives of creative communities, mediated communication and telepresence, technology acceptance in virtual environments, and location-based services. Each paper refers to how the human experience—particularly within one's social and private lives—continually evolves as a result of ongoing technological development.

We begin our current issue with **Smite's** research on creative network communities. The article focuses on the rise of network communities within Eastern and Western Europe in the early ages of the Internet, and the role of those communities within the era of Web 2.0. She discusses the interpretations of the concepts network and community, as well as the differences in practices and needs between early creative networks and the social networks of today. Drawing on interview data from networking experts and founders and analyzing posts from members of various networks from the 1990s, Smite establishes that *creative networks* reflect a translocal group of people with shared interests and loose connections, whereas *community* refers to personal relationships between network participants, whose contact often takes place both online and offline.

**Lombard and Jones** examine the phenomenon of telepresence, with a focus on a specific context: sexually arousing media content. Noting that those interested in pornography and the erotic arts have always been early exploiters of new technologies, Lombard and Jones carefully demonstrate how various aspects of telepresence can advance the technological applications in sexually arousing media, which in turn can help advance knowledge about and applications of telepresence in other realms and research. On the basis of their review of the evolution of relevant media technologies and telepresence applications, particularly related to human sexuality, they offer suggestions for further research.

The context of the article by **Tiainen, Kaapu, and Ellman** is a locomotion control device in a walk-in virtual environment. They conducted a test in which participants browsed virtual shopping items by controlling their personal locomotion either by walking or with a device. Research was focused on technology acceptance and use, which are assumed to be based on perceived usefulness and ease of use of the technology. However, the results of this study indicated no correlation between the actual use and ease of use of this simple device.

The final two articles in this issue focus on map-based services and applications. In the article by **Halkosaari, Sarjakoski, Ylirisku, and Sarjakoski,** a map-based multichannel

service is developed with the aid of a user-centered design process. The developed service would provide hikers with interactive maps through the integration of several channels. With the aid of this service, the same spatial information can be approached through multiple representations, such as printed, mobile, or Web-based maps. Various methods of user-centered design proved to be useful in involving users and research teams in the process of designing for variety of users.

The article by **Kässi, Krause, Kovanen, and Sarjakoski** focuses on positioning technologies (e.g., GPS) that aid the user in self-location on a mobile map. In this study, a field experiment was conducted to assess whether the plotting of user location on a mobile map assists the map reader in locating him/herself in the physical environment. Their results found that although plotting location alone is not enough, the positioning aid enables the user to narrow the search area and reduces the number of map–environment points required for self-location.

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