

# Mobile Life – Innovation in the Wild

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**Abstract.** *After a decade of work in our research labs on mobile and ubiquitous technology, often formed by the early visions of ubiquitous computing, with the urge to move interaction from the desktop out into the wild, these technologies have now moved out into the world – into the wild. We are in the middle of a second IT-revolution, caused by the spread of mobile and ubiquitous services, in combination with a broad consumer-oriented market pull. The first IT-revolution, the introduction and deployment of Internet and the World Wide Web during the 1990's, had a major impact on all parts of our society. As mobile, ubiquitous technology now becomes wide-spread, the design and evaluation of mobile services – i.e. information technology that can be accessed and used in virtually any setting – represents an important business arena for the IT- and telecom industry. Together we have to look for a sustainable web of work, leisure and ubiquitous technology we can call the mobile life.*

*But what impact does this have on HCI research? In particular, what is our role in innovating new services, new technologies, new interaction models and new ways of living with this technology? Obviously, new methods for design and evaluation of interfaces are needed, especially when those interfaces are not always clearly 'interfaces' anymore, but blend in with various new materials in our environments or even worn on our bodies. Usage situations are shifting, unstable, mobile settings – interaction in the wild. There is a need for design methods that help structure a multitude of different sources of inspiration and fieldwork, and synthesize it into concrete requirements and service or technology concepts. In our work we have used a variety of such methods, such as ethnography as a basis for design, Laban-notation to analyse body behaviours, novel forms of quick sketching of mobile service interaction, cultural probes to understand emotional processes in people's everyday lives, bodystorming for situating ideas in the real world, and the experience clip method for user self-evaluation to evaluate mobile services in their realistic setting. We have also developed our own methods, such as e.g. user-driven innovation - studying extreme or specialised user groups and then innovating services for other user groups based on those experiences*

*But we also see trends that will turn these ways of approaching innovation upside down. Producers and consumers blend together in what we name Mobile 2.0-services, creating content dependent on the mobile setting. Sketching in hardware and software combinations becomes accessible not only to technology experts, but to all. How can HCI-practice change to make the 'digital materials' accessible to all rather than supporting only HCI-experts to develop innovative design?*

*As pointed out in the vision "Being Human: Human-Computer Interaction in the year 2020", HCI needs to orient towards the values shaped by the interaction between technology and people in our everyday lives. As digital, interactive technology enters every aspect of our lives we must do justice to the full complexity of actual human lived experience, where people actively and individually construct meaningful experiences around technology. We might even have to take responsibility for how society is shaped by this second digital revolution - making values such as privacy, autonomy or trust, but also living a*

*good, rich life, explicitly part of our design processes and study methods, creating for a sustainable, human-friendly society.*

*In the Mobile Life centre, we work around a vision of a ludic society where work mixes with leisure, private with public – a society where enjoyment, experience and play are adopted into all aspects of life. It becomes important to recognise that private and leisure life should not have to be as polished and efficient as your work performance when practices and technology travel between these spheres of our life.*

*In my talk, I will discuss the implications for academic research in HCI as well as how this fosters a novel work practice in industry. The ICT and telecom industry will be less focused on identifying needs and more focused on values, in particular, ludic aspects of life.*

**Short Bio.** Kristina Höök is a professor at Department of Computer and Systems Science, Stockholm University/KTH since February 2003. She also leads the Mobile Life Centre and upholds a part-time position at Swedish Institute of Computer Science (SICS).

The research focus of Höök's group is on social, emotional and bodily interaction in mobile settings. Methodwise, she works from user-centred design perspective. Höök and her research group have been exploring the idea of involving users both physically and cognitively in what they name an *affective loop*. The idea of an affective loop is for users to step by step interpret, become influenced, imitate and be involved with an (computer or mobile) application, both physically and cognitively. Höök and her group have created several demos that embody the affective loop idea.

Höök is also known for her work on *social navigation* – how we are influenced by the choices of others when we navigate information and interaction spaces. Together with David Benyon and Alan Munro she edited a book on social navigation in 1999.

Kristina Höök has published more than 50 papers in journals such as ToCHI, IJHCS, Interactions, AI Communications, and at conferences such as CHI, DUX, DIS, IUI. She has been an invited keynote speaker at NordCHI'04, Mensch & Computer 2003, ECTEL-08, and an invited speaker at an invited session at CHI'04 and the Royal Society in London. She was awarded the Cor Bayeen fellowship for her PhD-thesis in 1996. In 2005 she was granted an INGVAR II award. The INGVAR grant is handed out for the advancement of young, future research leaders in Sweden by the Strategic Research Foundation. In 2007, Kristina Höök, Lars Erik Holmquist, Oskar Juhlin and Annika Waern, were granted a VINNex center named "Mobile Life" with funding for 10 years from VINNOVA and several industrial (Ericsson, TeliaSonera, Microsoft, Nokia, Sony Ericsson) and public sector partners (Stockholm City Municipality, Kista Science City and STING).