Call for Papers

**Ethical Challenges of Ubiquitous Computing
Call for Papers for Vol. 8 (12/2007)**

- **Deadline for abstracts: June 15, 2007**
- **Notification of acceptance to authors: August 15, 2007**
- **Deadline for full articles: November 15, 2007**
- **Publication: December, 2007**

Introduction

With the idea of Ubiquitous Computing introduced by Mark Weiser (often bracketed with slight modifications under the concepts of Pervasive Computing or Ambient Intelligence), the idea of an ICT saturation of the entire mesosphere – i.e. those old cyberspace fantasies of an angel-like existence, as they were still termed in the 1980s – appears to be on the point of becoming an earthly reality. In a certain sense, our everyday world should be made intelligent, and all our actions, at all times and everywhere, should undergo some kind of ICT support. Thus, the idea of ubiquitous Computing means an omnipresent ICT accompaniment of our daily life, either as an active user, as a passive beneficiary, as a monitored and possibly even as a system guided being. These systems could be available via memory (storage and accessing capacity), they usually have a perception (sensor technology) and a certain capacity for interpreting situations (context awareness). A whole host of technical research fields are working toward the goal of Ubiquitous Computing, from mechatronics to materials science, from telecommunication engineering to computing and AI research. The idea though of the omnipresence of these systems is necessarily misleading, because there will of course only be pockets where they come into effect, and we may generally doubt the total pervasiveness of our world on account of both technical and economic reasons. The maintenance alone of the infrastructure, particularly sensor technology, will doubtlessly entail such enormous costs that it will not be a case of an area-wide saturation. In any event, the present scenarios involve fields of application which will more or less have an impact on every domain of life, from areas of personal interest such as leisure activities or health care, to possible sources of income in the economy, and even to questions of public interest, such as domestic and foreign security.

Any ethical discussion of Ubiquitous Computing is inherently problematic because we are dealing with emergent technology. We have to take into account its potential, irrespective of how far this potential can be realised in detail, and irrespective of the fields in which all-pervasive ICT accompaniment will find acceptance. Nevertheless, there is no question that any technology that is going to so radically encroach on our daily life is in need of some kind of ethical framework, not least to provide direction to frequently financially motivated research, with respect to existing traditional values and sought after option values.

The case of Ubiquitous Computing brings into sharper focus two key problems in theoretical ethics that have already attained a special position in applied media ethics: On the one hand, the determination of reality which we should influence with our acting, and on the other hand, the determination of the subject to which these actions should be attributed and should intervene in reality. In certain sense we may say that reality diminishes with respect to its confrontational character, and hence becomes virtual, and there comes into focus the subject that is perceived by intelligent systems, always as a user stereotype, i.e. as a buying, sickly and travelling subject etc. To a certain extent the subject becomes weakened, and, moreover, the formation of its identity is impaired. This is because it has to above all manufacture its personality without the recognition and non-recognition of a present Other, and possibly without the development of those specific skills dependent on this confrontational expe-

rience with the world. For our everyday organisational abilities end up becoming reduced by intelligent systems. And they perhaps direct our behaviour, without it coming to explicit social processes characterised by negotiating and recognitional procedures.

The experience of the world and the self will therefore undergo a transformation in intelligent environments. This gives rise to countless ethical issues whose analysis must go hand in hand with the development of such systems. Thus, the above key questions have to be supplemented by additional specific problems, concerning, for instance, the anonymous generation of cognition, possible changes in the ethos of cognition, privacy and the formation of trust in intelligent worlds, and finally, the context sensitivity of the system and the related intrusion in our sphere of understanding.

The 8th issue of IRIE will tackle the ethical challenge of ubiquitous systems and therefore furnish a contribution to the establishment of an ethics of Ubiquitous Computing. This ethics is anchored in the field of media ethics, yet it radicalises to a certain degree the fundamental issues in this field, insofar as the entire mesosphere appears as a sphere disposed to such media. And hence, the boundaries then disappear between electronic technology and what underpins it.

Possible Topics and Questions

The production of reality (as concrete contents) and the production of *Wirklichkeit* (as opposed to the individual and an embedding of reality)
- Medialization of the physical world
- Interpretation of reality and environments using context sensitive and adaptive systems
- Modelling of acting and behaviour through context sensitive and adaptive systems

Privacy, Surveillance, Trust
- Privacy in intelligent interactive environments
- Surveillance, data protection and personal freedom
- Ubiquitous systems and trust

Manufacturing of the Acting Subject
- Identity formation in intelligent environments
- The Other in intelligent environments
- Self-perception in intelligent environments

Cognition in intelligent environments
- Generating cognition in intelligent environments
- Anonymous generation of cognition and cognitive acquisition
- Transformation of the cognitive ethos

Problems of Ubiquitous Computing in special fields of application
- Health Care
- Economy and work
- Living in a smart home (and other fields …)

The Rules of the Game

Potential authors must provide an extended abstract (max. 1500 words) by 15/06/2007. The abstract can be written in the mother tongue of the author though an English translation of this abstract must be included if the chosen language is not English. IRIE will publish articles in English, French, German, Portuguese or Spanish. The author(s) of contributions in French, Portuguese, or Spanish must nominate at least two potential peer reviewers.

The abstracts will be selected by the guest editors. The authors will be informed of acceptance or rejection by 15/08/2007. Deadline for the final article (3.000 words or 20.000 characters including blanks) is 15/11/2007. All submissions will be subject of a peer review. Therefore the acceptance of an extended abstract does not imply the publication of the final text (12/2007) unless the article passed the peer review.

For more information about the journal see: http://www.i-r-i-e.net

Contact

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