IRIE
International Review of Information Ethics

EXTENDED

Call for Papers:

Ethics for the Internet of Things

Call for Papers for Vol. 22 (2/2015)

- **Deadline for extended abstracts:** September 30, 2014
- **Notification of acceptance to authors:** October 15, 2014
- **Deadline for full articles:** November 30, 2014
- **Deadline for revised articles:** January 31, 2015
- **Publication:** February 2015

Introduction

Different terms have been coined for those old cyberspace fantasies stemming still from the 1980s of a pervasive ICT saturation of the entire mesosphere: Internet of Everything, Semantic Web, Intelligent or Cyber Physical Systems. As early as 1991 Mark Weiser with his idea of Ubiquitous Computing (often bracketed with slight modifications under the concepts of Pervasive Computing or Ambient Intelligence) already reflected on the extension of processing power into everyday scenarios. Already in 2007 IRIE has dealt with this subject and the ethical challenges involved in its 8th issue.

The very concept of an Internet of Things (IoT) was originally proposed by Kevin Asthon in 1999 during a presentation at Procter & Gamble in order to address the advent of the RFID technology. Since then it became a hot topic not only for the internet community, yet for the whole field of information and communication technology (ICT). But only after the huge enlargement of the IP address space by ip6 and the rapid decline in costs of microprocessing power Asthon's and Weiser's notions now appear to be on the point of becoming an earthly reality. Today not only RFID tagged objects, but also distributed sensor and agent technologies through the still ongoing miniaturization of processing power bring the idea of an Internet of Things into the realm of possibility. The result is a universal connectivity in which remote computers get eyes, ears and even hands in the physical world and thus objects start to play an active role in it. According to the research institution Gartner 26 bn devices will be interconnected by 2020[1] – a multiple of human beings on the planet. Then, all our actions, at all times and everywhere, should undergo some kind of ICT support and indeed, in a certain sense, our everyday world could be made intelligent by the

[1] Gartner: http://www.gartner.com/newsroom/id/2636073 (last accessed 29 June 2014)

capabilities of computing power distributed and embedded into everyday objects and the connectivity of the net. Thus, the idea of an Internet of Things finally 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.

A whole host of technical research fields are working toward this goal of an Internet of Things, from mechatronics to materials science, from telecommunication engineering to computing and AI research. The scenarios currently discussed range from connected consumer electronics, automotive, health care, utilities and intelligent homes and buildings.

The case of the Internet of Things brings into sharper focus two key problems that have already attained a special position in applied media ethics: On the one hand, the determination of reality which we perceive more and more facilitated by ICTs, and on the other hand, the determination of the subject to which actions should be attributed that intervene with this hybrid reality. In a certain sense, we may say that the physical reality diminishes with respect to its confrontational character, and hence becomes completely virtual. On the other side the status of the various agents in this virtual and interwoven reality must be clarified regarding their moral accountability. At the possible end of this development it can happen what Asthon called the independence of the internet from any human intervention.

The role models of active or passive participation in world affairs could change dramatically, and the ethical dimensions of this transformation affect human actors as much as the "things". Etymologically, the old English and German word "thing" meant a public assembly and therefore was a synonym of democracy and partizipation. The "Internet of Things" on the contrary will possibly become a notion of usurpation and the government of things over their former creators.

The 22nd issue of IRIE will tackle the ethical challenge of the Internet of Things and therefore furnish a contribution to the establishment of an ethics for it. This ethics is anchored in the field of information ethics, yet it radicalizes to a certain degree the fundamental issues in this field, insofar as the entire mesosphere appears as a sphere shaped by information and its technologies. And hence, the boundaries then disappear between electronic technology and what underpins it.

Possible Topics and Questions

Privacy in the IoT

Of course, a major issue of the Internet of Things is privacy. As our everyday life will be invaded by sensors that are connected to computing power to process the ‘Big Data’ gathered the unprecedented possibilities to breach privacy are easily predictable. But

in fact, the blurring of the contexts that define the realm of privacy and the public demands new concepts to define what these notions can mean in the Internet of Things.

Access to beneficial use of IoT and social justice

Assuming that access to the Internet of Things is beneficiary for people and given its pervasiveness the potential making use of it may become a fundamental human right and constitutional for personal development. What do we have to do to avoid respective impairments and divides?

Establishment of trust in the IoT

The more our everyday life becomes dependent on the technologies deployed in the IoT the more a framework is necessary to ethically establish trust in the IoT. How can we and should we enable subjects to take informed decisions on attributing or depriving trust into the machinery.

Status of agents and agency in the IoT

In the case of the Internet of Things it is vital to clarify whether things that can act enabled by connected computing power are also actors from an ethical point of view. Can these things be attributed some form of responsibility or accountability or only their originators? And how to regulate that?

Rules for Contributing

Potential authors must provide an extended abstract (max. 1.500 words) of their intended contribution until Sept 30, 2014 to the guest editors. The abstract can be written in any publication language of IRIE (i.e. English, German, French, Spanish, Portuguese) though an English translation of the abstract must be included if the chosen language is not English.

The abstracts will be selected by the guest editors and the authors will be informed of acceptance or rejection. Deadline for the final article (should be approx. 3.000 words or 20.000 characters including blanks but can be longer if necessary) is January 31, 2015 as stated above. 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 unless the article passed the peer review.

IRIE
International Review of Information Ethics

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

Guest Editors:

Prof. Dr. Hektor Haarkötter
Hochschule für Medien, Kommunikation und Wirtschaft (HMKW)
Email: h.haarkoetter@hmkw.de

Dr. Felix Weil
ICIE – International Center for Information Ethics
Email: felix.weil@quibiq.de