The emancipation of the computer

The Issue and Objective

Information and communication technologies are constantly evolving. Major research is currently being done on designing computer systems characterised by a high level of autonomy, in such a way that they will be able to take decisions and initiate actions. The aim is to delegate complex tasks to IT systems without human intervention. A company, for instance, will be able to delegate the management of electronic data (e-mails, files) to machines, thanks in particular to “data mining”. People who use mobile telephones and personal assistants will be able to enlist the help of “electronic butlers” capable of planning a journey, taking part in an auction sale or alerting the emergency services in the event of an accident.

The appearance of such IT systems will have an impact on both individuals and society, and will raise many questions. Is the computer being called on to replace humans, or even to dominate them? In an interconnected world, how will security and the protection of the private sphere evolve? When more and more tasks are being carried out automatically, who will have to shoulder responsibility if there is a breakdown or a fault?

The study on the emancipation of the computer has to establish the extent to which human beings delegate information processing, decision making and the performance of tasks to IT systems, now and in the future. The emphasis is not on purely technical aspects, but also and especially on the consequences for individuals and society.

The Methods and the Approach

In the initial phase, the study’s authors will analyse the technological developments affected by the autonomisation of IT systems. This will be done by studying the literature and conducting interviews with experts. Different scenarios relating to technological developments will then be put forward on the basis of this first analysis.

The second phase will involve an analysis of the social, ethical and legal consequences of the autonomisation of IT systems for individuals, companies and society. The authors will base their analysis on case studies and discussions with experts.

Finally, the authors will formulate recommendations on the basis of the consequences that have been brought to light and by putting their results to a network of experts.

Start of project: summer 2004
Project deadline: mid 2007

Persons Participating in the Project

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Matthias Leisi, Swiss Internet User Group, Rümlang

Results / Publications

End 2005: Final report and short version

19.11.04: Press release - «Emancipation of the computer»

Links

MIT Media Lab, Things that think:
http://ttt.media.mit.edu/vision/vision.html

Intelligent Bed MIT
http://web.mit.edu/wlz/www/urop/bedproject/

IBM Autonomic Computing:
http://www.research.ibm.com/autonomic