

Success stories



This week Information Technology - the Press presents some projects and initiatives relating to Artificial Intelligence and Intelligent Agents

One of these projects has recently received some funding under the European Union IST Programme and aims to analyse the Universal Information Ecosystem. The other initiative explores visionary interactive systems for communities of people.

We also introduce ETHICOMP, a series of conferences dealing with ethics in the Information Society



Ethical Behaviour

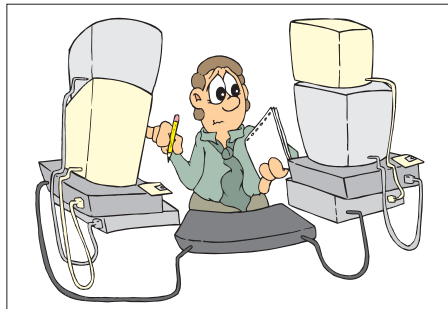


Dr. Jeremy Pitt*

LONDON - The new millennium will witness the deployment of a significant number of diverse information systems, embracing application environments such as electronic commerce, online information services (social, health and welfare), connected communities, converged communications (data, voice and TV), energy access and distribution, etc. The complete integration of these situated, embedded and intelligent systems is one vision of the Universal Information Ecosystem (UIE). The principal difference between such intelligent systems and its AI predecessors (like expert systems and multi-agent systems) is that the UIE will be populated by infohabitants, intelligent software entities that are continually and selectively aware of the information processing opportunities available to them. The key insight of the ALFEBIITE project - a new project, started February 2000, and funded with the support of the European Union's IST programme - is to recognise that these infohabitants are owned, and their behaviour in the electronic space has a legal correlate in the real world. The ALFEBIITE project will investigate the application of formal models of norm-governed activity to the definition, management and regulation of interactions between infohabitants in the UIE. Current techniques for controlling interactions in distributed systems are based on mechanistic procedures, so that integrity relies on encryption, passwords, firewalls and so on.

As the software processes in distributed information systems become more intelligent - i.e., as they evolve towards infohabitants - ALFEBIITE will enhance these procedures with formally specified, socially motivated, anthropomorphic relations, such as trust, authority, reputation, etc. The ALFEBIITE partners form an inter-disciplinary consortium, and the synthesis of computing, philosophy, psychology, and law promises to deliver a new paradigm in designing, deploying and managing open, distributed intelligent systems. In this paradigm, dynamic social relationships become as important as interface definitions in providing interoperability. This will go some way to achieving the envisioned Universal Information Ecosystem: a rich, adaptive mix of diverse and dynamic infohabitants. However, a user-friendly information society built on the UIE is concerned with ensuring that citizens are not exploited, rights are protected (e.g. statutory and consumer rights), and information privacy is not violated. The legal results of ALFEBIITE will provide EC citizens with greater trust and confidence in the new technology of the emerging information society.

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The intelligence is in the medium, but people matter too

Rossella Magli*

BRUSSELS - There is a European initiative that is quite atypical in the landscape of technology research and development. I3 (which stands for Intelligent Information Interfaces) explores visionary interactive systems for communities of people in their everyday activities. It involves three research programmes (Connected Communities, Inhabited Information Spaces and Experimental School Environments) and twenty-five research projects. What makes the I3 community of projects so special? That all its multifaceted, multi-disciplinary explorations have a common feature: they put a strong emphasis on the human factor, and share the belief that machines must be adapted to people's needs

and not the other way round. Artificial Intelligence is an important element in I3 and projects are developing media that will allow people to communicate better, interact better and express themselves better. COMRIS, like a parrot on the sailor's shoulder, help people navigate in environments in which the amount of information is so vast that it may be troublesome to find one's own way. In conferences or fairs, for instance, the COMRIS parrot can guide people through and make it easier for participants to meet other people that best match their interests. It can schedule appointments or spot interesting events for them, it can whisper personalized messages in their ears, with appropriate information at appropriate times: all this

thanks to a bustling parallel artificial universe of numerous software agents and a light and wearable hardware device.

The objective of another project, HIPS, is to enrich people's experience of navigation in physical spaces, a city for instance, by overlapping a further dimension with the physical space: the wearable HIPS device provides information on the human environment in a contextual and personalized way.

Navigation in information spaces is tackled by the project PERSONA, which populates the otherwise rather dead World Wide Web with ironic intelligent agents, Agneta and Frieda, that comment on what they (and you) see. Another flavor of Artificial Intelligence in I3 is to create enriched experiences for communication and entertainment in large-scale and physically scattered settings. eRENA attempts to generate the feeling of participation in mass events through the concept of Inhabited TV. Inhabited TV allows viewers to participate in the programme they are watching, or to feel admired in large virtual arenas, virtually bringing together the people on the TV set and those watching from home. If the common belief is that intelligent technology has failed to deliver, then you may be in for a few surprises!

Just visit the I3 projects on the I3-net web site: <http://www.i3net.org>

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A discussion forum

P.A.

ROME - The ETHICOMP conference series is now recognised as one of the premier international events on computer ethics attended by delegates from all over the world. Conferences are held about every 18 months. Computer ethics has reached an important point. From its earliest roots it has now become a global subject of concern which is influencing policy formulation, computing practice and computer application. The overall theme for ETHICOMP 99 which took place in Rome in October 1999 was "Look to the future of the Information Society". The aim was to focus on how achievements of the past can be built upon to expand the field and to ensure that the important issues impacting upon society, its citizens and its organisations will be effectively addressed and so help improve



the quality of life. Further information on this and past ETHICOMP conferences can be found at the Centre for Computing and Social Responsibility (CCSR) web site <http://www.ccsr.cse.dmu.ac.uk/> together with links to the research activities, events and initiatives carried out by the Centre such as the ETHICOMP ONLINE for online discussion on topics relating to ethics in the information society and seminars. The main areas of interest are social responsibility in hardware and software marketing, ethics of robotics and ethics of artificial intelligence, environmental impact of computing, etc.



More info and source:
<http://www.ccsr.cse.dmu.ac.uk/>