

Call for Papers
The reign of Catz and Dogz?
The role of virtual creatures in a computerised society
A one day symposium at AISB'07 to be held at Newcastle University,
Newcastle Upon Tyne, 2-5 April 2007

Call for papers

A major concern for human computer interaction researchers is how to construct interfaces to future ambient and pervasive technologies which are naturalistic, unobtrusive and implicit. Perhaps in response to this there exists a good deal of well-established research which attempts to identify aspects of human-human communication (such as gesture, language and facial expression recognition) and implement these as modalities in human-computer interfaces. Such an approach is fraught with difficulty – frequently, reported work will ignore the complexities raised by context and culture, whilst recreation of interfaces which are 'too-human' can fall into the trap of the uncanny valley. One possible, and potentially very manageable, alternative to using aspects of human-human social cognition as inspiration and models for human-computer interaction is to consider human-animal interaction – or anthrozoology.

Sustained consumer interest in off-the-shelf robotic animals such as Furby, Aibo, i-Cybie and RoboPet, and the commercial success of computer-games such the Tamagochi, Catz and Dogz, and, in particular, Nintendogs, provide convincing evidence of the widespread appeal of interacting with artificial, albeit rather basic, representations of creatures. As the designers of such toys and applications are no doubt aware, an accepted consensus within anthrozoologic research is the quantifiable positive effects of human-animal relationships. Accordingly, the biologist E.O. Wilson coined the term biophilia as "the connections that human beings ... seek with the rest of life", and argued that such cravings are determined by a biological need. However, to-date no link has been explored between such socio-biological theories and human interactions with artificial systems.

It is timely to consider the future role that interactive artificial creatures will play in a society populated with pervasive computers, personal robots and ambient intelligence. Will such entities continue in a low-key role as casual entertainment devices or will they, as some researchers predict, become interfaces for all manner of interactions with larger networks of pervasive systems? Other possibilities include the idea that virtual pets will go on to replace real ones, whilst interest in generic personal robots is certainly rising. A recent call for research in Europe advocated interfaces for robots which will be "present in everyday human environments" whilst, the South Korean government is funding a strategy designed to put service-robots in every domestic household within ten to fifteen years. There are dissenting voices however which reiterate the position that computers and virtual agents can, fundamentally, never be truly social entities. Additionally, Sony recently signalled the end of their activity in personal and entertainment robotics.

We suggest that a one day symposium will allow a gathering of key researchers in the fields of ethologically inspired virtual creatures, personal robotics and pervasive computing to table and discuss their views on the relevant contemporary issues prevailing and to crystallise the challenges facing us in the near future.

Topics of interest include (but are not limited to):

- * virtual creature/character interaction;
- * embodied versus screen based interactions;
- * social and ethological robotics;
- * virtual pets and companions;
- * comparisons of interactions between real and artificial creatures;
- * virtual creatures as interfaces to larger pervasive systems;
- * virtual creatures inhabiting mobile devices;
- * the uncanny valley and its effect on virtual creatures/characters;
- * the 'illusion of life' – making believable artificial creatures
- * concurrent interaction with a number of virtual characters;
- * presence of persona in virtual characters and embodied devices;
- * companionship and comfort from virtual characters/creatures;
- * the use of virtual creatures as teaching assistants and tools

We are particularly interested to receive contributions which forcefully argue the case for and against any aspect of intelligent virtual creatures and robots and their interactions with humans. Additionally, we strongly believe that the creation of effective virtual creatures and personal robots demands a multi-disciplinary approach – we are keen to receive contributions from, for example, animal behaviour scientists, computer scientists, robotic systems engineers, and cognitive psychologists who are making contributions to this area.

Submissions

We welcome and encourage submissions of original papers, which are not being simultaneously submitted for publication elsewhere. Papers should be no more than 8 pages in length and should describe active, ongoing or completed work which fits with the symposium theme and topics. All accepted papers will appear in the printed AISB proceedings for the convention. Authors of accepted papers will be expected to register and attend the symposium and present their work. In order to ensure a consistent look of the proceedings papers should be submitted using the ECAI style files which can be found here:

<http://ecai2006.itc.it/cda/images/ecai2006.pdf> or
<http://ecai2006.itc.it/cda/images/ecai2006.zip>

Authors are requested to email electronic copies of their paper to BOTH symposium chairs (slawson@lincoln.ac.uk & Thomas.Chesney@nottingham.ac.uk) by the submission deadline given below.

In addition to paper contributions we would like to solicit demonstrations of relevant work – either as part of a paper contribution or as a standalone submission. To submit a standalone demo please submit a one page overview to the symposium chairs of your demo stating how it fits with the symposium theme and topics by the submission deadline.

Important Dates

08/01/07 paper submission deadline
05/02/07 notifications of acceptance
23/02/07 camera ready copies of papers due
2-5/04/07 AISB convention

Additional Information

Up-to-date information on the symposium can be found on our website at <http://hemswell.lincoln.ac.uk/virtualcreatures/index.html>. The symposium forms part of the Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISB) convention to be held at Newcastle University, Newcastle Upon Tyne, 2-5 April 2007 (web page at <http://www.aisb.org.uk/convention/aisb07/>). The AISB convention is an annual event organised as a number of collocated symposia interspersed with invited plenary talks - in 2007 the theme of the convention is "Artificial and Ambient Intelligence".

Symposium Chairs:

Shaun Lawson (Dept of Computing & Informatics, University of Lincoln)
Thomas Chesney (Nottingham University Business School, UK)

Programme Committee

Dave Hobbs (School of Informatics, University of Bradford)
Deborah Wells (School of Psychology, Queen's University Belfast)
Ehud Sharlin (Department of Computer Science, University of Calgary)
Richard Hetherington (School of Computing, Napier University)
Trevor Jones (Dept of Computing & Informatics, University of Lincoln)
Vicente Matellán (Robotics Lab, Rey Juan Carlos University (Madrid))