Sleeping with Agents -
What will Computer Scientists do in the name of Science?

Anthony Pounds-Cornish sleeping (with Agents) in the bed in the iDorm,

Wednesday 2pm

Having packed two day's worth of clothes and underwear, received a farewell kiss from my girlfriend and signed in with security I was about ready to start the experiment. I had been chosen as the human guinea pig in an experiment to see how much a computer could learn about human behaviour in a 50-hour period. For a little over two days, a machine (the Agent) slightly bigger than my palm was to look at everything I did in the iDorm and make decisions on my behalf based on what it learnt. This is an account of a 24-hour segment of that experiment

Wednesday 6pm

I had been using the computer interface to change the environment for various activities such as having the table lamp on when I at the computer and having the bed lamp on when I was sitting on the bed. It was at this point that the sunlight began to reflect on the computer monitor and I adjusted the blinds to block the light. I then left to grab some dinner in the bar.

Wednesday 7.30pm

On returning to the iDorm, the Agent had switched off the lights in my absence. When I sat back down on the chair, it switched on the table lamp and opened the blinds. It wasn't until I realised it hadn't adjusted the blinds to their previous position and that this was because the sunlight had moved off the monitor.

Article from University of Essex "Wyvern" magazine May/June 2002

Wednesday Night

Overnight, the Agent learnt that when I was out of the bed, it should switch the bed lamp on and when I was in bed, it was to switch it. I awoke at 3am to find that the bed lamp was switching on and off at apparently random intervals. Cursing technology with my Portsmouth background to the fore, I got out of bed and examined the pressure pad wiring. As it turned out, one of the pressure pad wires had come loose and so, as far as the Agent was concerned, I was getting in and out of bed more frequently than someone with bladder problems. Not particularly fancying a soldering job at 3.15am, I overrode the Agent and kept the light permanently off.

Thursday 8.30am

Having got up, washed using the toilet down the corridor and put some clothes on (not necessarily in that order as the Graduate Secretaries are on the same floor), I fixed the pressure pad in the light of day and went to get some breakfast. Because the iDorm was designed as a multi-function room, I could also work from there as well. I rang my girlfriend to tell her that I hadn't been cooked by the air conditioning and wasn't being held against my will by the Agent.

Thursday 2pm

Throughout the day, I had to make far less changes to the environment than I had the previous day. This was because the Agent was using what it had seen previously to pre-empt my actions and carry them out itself. This was one of the experiment's measures for success – less interaction meant more correct decisions by the Agent and less corrective measures by the user.

Anthony Pounds-Cornish sitting at the desk in the iDorm

The Future?

The Agent has already been refined based on the results of this experiment. It will also be able to "see" far more about the room by being attached to more sensors in

time for the next experiment which will see the human guinea pig stay in the iDorm for an entire week. I wonder if I can get a reduced rate of rent for the period?

Footnote:

"The above is part of an EU funded research programme, eGadgets, in which the department of Computer Science is funded to investigate ways of embedding useful amounts of intelligence (i.e. reasoning, planning and learning), into small networked computer based devices known as intelligent embedded-agents. It is part of the European Future and Emerging Technology programming which is looking a vision where in 10-20 years they envisage there being billions of tiny computers integrated into the fabric of our every day lives"