

Short Report for JSPS London website

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From July 2011 to January 2012 I spent 6 months conducting research in Nishida Lab at Kyoto University with Professor Toyoaki Nishida. My research explored the novel idea that humanoid robots are fundamentally a type of monitoring or surveillance device, and will influence the perceptions, attitudes and behaviours of all those who interact with them. Unfortunately, such robots can have undesirable side effects such as stress and discomfort, which can in the worst case lead to a break down in the interaction. This motivated the need for a predictive model, which based on the design specifications of the robot could predict the behavioural responses of users. This would allow designers of such systems to explore numerous design iterations and their effects, prior to constructing them. This may save time, money and potentially lead to more successful interactions.

My research started by theoretically expanding a similar predictive model I developed in previous research on pervasive computing. I then proceeded to carry out a number of controlled experiments and questionnaires, exploring aspects of robot intelligence and mobility. I also took the opportunity to make a cross-comparison between British and Japanese culture using data collected from my previous research. The results from these studies are promising, and it is my intention to continue to work with researchers at Nishida lab in this area.

Tips from a research perspective:

- Embrace your independence as a researcher
- Visit as many relevant research groups as you can
- Share your methods, techniques and working values
- Learn new approaches and concepts
- Engage with both staff and students in discussion as early as you can
- Work hard, but sensibly

Tips from a personal perspective:

- Read about many aspects of Japanese culture before you arrive
- At the very least, learn basic phrases such as “Hello”, “Thank You”, “Good Bye”
- Learn to read some of the most common and useful Kanji
- Make the most of your weekends
- Be brave – try new things and explore
- Know that you will get lost, confused and feel isolated...
- ... but **Do Not Panic**: Japanese people are extremely polite and helpful – if in doubt, ask!

Once again, I would like to thank JSPS for this opportunity and I hope to return to Japan to conduct research again in the future. I have learnt many new skills, made new friends and colleagues, had unique experiences and now think of Japan as my second home.

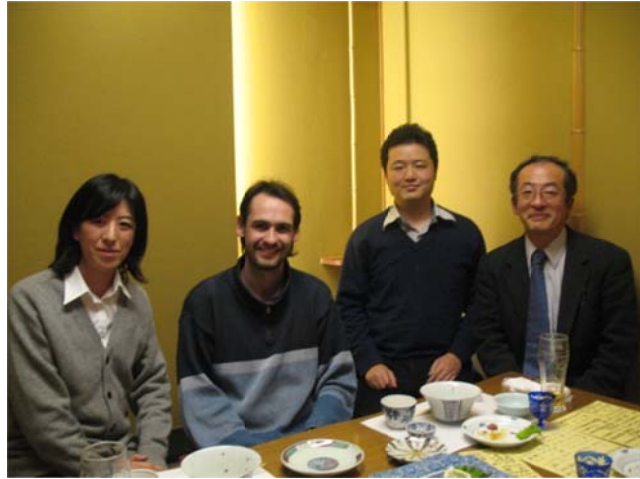


Figure 1 Nishida-sensei (far right), myself and other staff members in my final week



Figure 2 "Nao" - one of the humanoid robots I studied



Figure 3 One of the beautiful scenes during Autumn in Kyoto (Tofukuji Temple)