



## Job description and selection criteria

<b>Job title</b>	Senior Researcher on Responsible Robotics for the Digital Economy: Robotips
<b>Division</b>	MPLS
<b>Department</b>	Computer Science
<b>Location</b>	Wolfson Building, Parks Road, Oxford
<b>Grade and salary</b>	Grade 8: £40792 -£53174 p.a.
<b>Hours</b>	Full time
<b>Contract type</b>	Fixed-term until 28 <sup>th</sup> February 2024
<b>Reporting to</b>	<i>Marina Jirotko, Professor Human Centred Computing</i>

## **Overview of the role**

The PDRA will report to Marina Jirotko, who is Professor of Human Centred Computing at the University of Oxford. Over the past 10 years she has been at the forefront of work in the UK and EU on Responsible Innovation (RI) in ICT and digital technologies. Professor Jirotko currently holds an EPSRC established career fellowship - RoboTIPS, which seeks to embed RI into technology developers' practices and to create positive cases of RI in action. The work is carried out in collaboration with Alan Winfield, Professor of Robot Ethics from Bristol Robotics Lab. The fellowship focuses on the domain of robot systems and includes the development and testing of an innovative design feature called the Ethical Black Box (EBB). This is the robot equivalent of a flight data recorder and can be used in the investigation of accidents to generate human understandable explanations of what a robot did and why. Other project activities include the conceptual and practical exploration of what responsibility means in the context of social robots and the production of policy recommendations and a responsibility toolkit for designers.

The PDRA will assist with the Human Centred and Responsible Innovation aspects of the ongoing RoboTIPS work. These aspects include: the conceptual analysis of core project themes such as variable autonomy; interviews with robot designers and developers; discussion workshops with professional stakeholders; development of accident scenarios for testing of the EBB; observation of mock accident investigations; engagement activities with different audiences; liaison with our project Advisory Board, and the co design of the responsibility toolkit. The PDRA will therefore be required to undertake the following activities: literature reviews, data collection, data analysis, writing project findings for publication, presentation of project findings at conference, representing the project at different external meetings and events, development and delivery of engagement activities, and the co-supervision of student projects. The PDRA will take a key role in overseeing much of the day to day RoboTIPS project work being undertaken at Oxford and also support Professor Jirotko with other regular activities in her Human Centred Computing group. This will include the organisation and conduct of team meetings, and liaison across the wider Human Centred Computing theme and Department of Computer Science. The successful candidate will also be invited to take up the role of research lead in the new Responsible Technology Institute initiative, which is also led by Professor Jirotko.

## **Responsibilities/duties**

- Work with colleagues to develop research objectives and protocols relevant to the aims and ongoing work of the RoboTIPS study.
- Conduct research individually and with others, analyse detailed and complex qualitative and/or quantitative data from a variety of sources, and generate original ideas that provide insight to the project.
- Regularly write research articles at a national and international level for peer-reviewed journals, book chapters, and reviews. Present papers at national and international conferences, and co-ordinate seminars to disseminate research findings.
- Collaborate with the RoboTIPS team to agree clear task objectives and protocols; organise and distribute tasks to other members of the team and support research assistants/students on specialist methodologies or procedures.

- Share responsibility for day to day project management, including oversight of the budget and spending, communication with the funding body and communication with project stakeholders. Represent the research group at external meetings/seminars, either with other members of the team or alone.
- Share responsibility for shaping the research group's plans and the writing of group-funding applications for new research projects.
- Carry out collaborative projects with colleagues in partner institutions, and research groups.
- Be a full and active member of the Department, for instance by taking roles on departmental committees advising on scientific and management matters.

## **Selection criteria**

### **Essential:**

- A relevant PhD or DPhil, with post-qualification research experience
- Expertise and experience in interdisciplinary research and socio-technical design
- Knowledge or experience of Responsible Innovation theory and processes
- Strong publication record and familiarity with the existing literature and research in the field.
- Sufficient specialist knowledge in the discipline, research skills, and methodologies to independently develop and carry out research projects
- Organisational and project management skills, including managing a research budget, co-ordinating project activities and events, managing deadlines and milestones
- Ability to liaise with a range of stakeholders, both internal and external, across industry, civil society and members of the public
- Ability to raise research funds through making grant applications
- Excellent communication skills, including the ability to write for publication, present research proposals and results, and represent the project at meetings of various kinds.

### **Desirable:**

- Experience of supervising staff/students
- Experience with internal research support activities such as committee roles