Robot representatives open doors for the isolated

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The study will examine how a robot proxy could reduce social isolation and increase civic participation. Credit: Aldebaran Robotics

Psychologists from the University of Exeter are leading a major project looking at how robots can enable people to interact in public spaces – without actually being there.

The £2 million three-year project, *Being There: Humans and Robots in*

Public Spaces, funded by the Engineering and Physical Sciences Research Council (EPSRC), will examine how robotics can help to bridge the gap between the way we communicate in person and online.

It brings together researchers from the Universities of Exeter, Bath and Oxford, Queen Mary University of London and the Bristol Robotics Laboratory (BRL) to look at the social and technological aspects of being able to appear in public in proxy forms, via a range of advanced robotics platforms. The BRL is a collaborative partnership between the University of the West of England and the University of Bristol.

The research team will be using an advanced programmable humanoid robot, called 'Nao,' that they will take into public spaces around Bristol and Bath to measure human interaction with robots.

Nao will be controlled remotely and its controllers will be able to see and speak through its eyes and mouth, while directing where it looks and walks.

The project aims to enhance the public realm as a space where people can interact under conditions of privacy and equality, where the social benefits of being with other people are maximised, and barriers to being in public spaces are reduced.

Professor Mark Levine of the University of Exeter said: "Being able to interact with others in public space plays an important role in the well-being of individuals and societies. Sadly, many people are unable to do this – because they are ill, housebound or unable to travel. However, if a robot proxy can act for them – and can transmit back the full experience of being with others - we can help to reduce social isolation and increase civic participation.

"We are very excited by the opportunities that new technologies offer to

help us extend our research on helping behaviour and social interactions in public spaces. We hope our work on human-robot interactions will contribute to the public spaces of the future."

The research team will create a 'living laboratory', using state-of-the-art technologies to measure how people respond to and interact with other people who are acting through a robot representative.

Supporting this process, digital creative from Bristol's iShed will work alongside the researchers, bringing their expertise in public engagement to help bring the research out of the lab and into a range of public spaces in Bristol.

Professor Mark Levine, Dr Miriam Koschate-Reis and Dr Huseyin Cakal from the University of Exeter's Department of Psychology will produce a series of experiments in laboratory and semi-public spaces which will deepen understanding of the relationship between social identities, social interactions and the spread of emotion in groups.

Provided by University of Exeter

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