

Telepresence Teaching in Higher Education as a Reasonable Adjustment: Pilot Project Report 2022



Figure 1. Telepresence teaching in action.



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With thanks to Professor Praminda Caleb-Solly (University of Nottingham) and Professor Peter Clegg, Head of Department of Social Sciences (UWE Bristol) who supported the aims and made this project possible. This interdisciplinary project was also supported by the Sociology and Assistive Robotics programme teams.

Sophie would like to thank personal assistants Sam Winfield, Chloe Yuen, and robotics technician Tom Bennett who had essential roles supporting my work in using telepresence technology as a reasonable adjustment. I would also like to thank my line manager Mandy Kidd, and module leader Lita Crociani-Windland for their ongoing support to realise the goals of this project.

Summary

Aims

This project aimed to pilot the use of telepresence robots by an academic lecturer at home as a reasonable adjustment to teach students on-campus in the context of the COVID-19 pandemic.

Findings

Three key themes were identified from the autoethnographic analysis: inclusion, relationships and sense of self and value. Feedback from students emphasised the quality of the teacher student relationship that telepresence enabled and learning about inclusion. The ease of use was due to the reliability of the technology, and provision of technical support and a personal assistant in-class.

Key messages and next steps

- Telepresence use can be a viable Reasonable Adjustment for teaching in higher education especially for interactive activities.
- Staff and students need to understand disability equality and their own role in bringing about equal opportunities.
- Further cross university co-production research is needed with disabled academics alongside students and technicians to re-imagine the future learning spaces and the uses of robotic technology that resemble, debate, and enact meaningful inclusion for all.

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1. Introduction to disability rights and telepresence robotics technology in the context of the COVID19 pandemic

1.1 Context

This project was initiated by and designed around Sophie Savage's lived experience as a disabled member of academic staff at the University of the West of England and is about the right to accessible, safe employment. Sophie had made links between disability rights and robotics technology in the [Disability Rights and Robotics: Co-producing Futures project](#) with Dr Tillie Curran, Visiting Fellow. When students and staff had begun to return to campus-based learning in the second year of the COVID-19 pandemic, when the government measures around 'lockdown' changed, Sophie, and many others, were continuing to shield on medical advice for their safety and survival. Sophie drew on the principles of the social model of disability that centres lived experience as the basis of social change towards the realisation of civil rights (Oliver, 1991). She developed the rights-based research question and designed the methodology around lived experience, support, and accessibility. This report is therefore written from Sophie's voice.

The impact of COVID for disabled people cannot be explained by its pathology; its impact is a result of the exponential exacerbation of exclusion, discrimination and hostility disabled people then faced. Disabled people have reported feelings of anxiety and fragility from the context of the highest rates of death, loss of community support, risks of at home provision, loss of education and employment resulting from government decisions and existing social arrangements (Goodley et al. 2021). In contrast, the affirmation that disabled people's networks bring has been of crucial significance:

"Affective touchpoints of fragility, anxiety and affirmation are always under-girded by wider questions of disability and humanity. Moreover, these questions are always historically, culturally, and socially located; dis/ability is felt very differently in and across diverse contexts" (Goodley et al. 2021:13).

Some disabled people will have a lifelong journey of exclusion to become academics (Brown and Leigh, 2020), navigating bullying and barriers to school education (Savage, 2018), surviving segregation in 'special' school or within mainstream further education (Skitteral, 2018). Disabled people's expertise in developing flexible working strategies and uses of technology, gained recognition when adjustments to work were made for some in response to the pandemic (Ryan, 2021). With the likelihood of marginalisation and exploitation, it is vital to design an accessible research process, support and respect and we reflect on the extent to which this was possible in the discussion.

'Reasonable Adjustment' (RA) is the legal term used to describe measures that enable disabled people to work without disadvantage, and The Equality Act 2010 is the legislation which requires an employer to make reasonable adjustments. RA's can include changing work practices, access to equipment, and resources such as a personal assistant and Equality and Human Rights Commission [guidance](#) was published to address the COVID context. [UWE guidance on Reasonable Adjustments](#) available to staff sets out the legal

requirements, the process involved, support including [West of England Centre of Inclusive Living](#) and resources including [Access to Work](#). Examples of RA's illustrate the centrality of the disabled member of staff's experience, the creativity possible in rethinking excluding practices and the improvement these changes can make to universities being more inclusive learning communities for all.

Telepresence robots are devices which can be operated by anyone with an internet connection that includes a video-camera, a screen, speakers, and microphones. The user, the lecturer, can be based at home or any safe location and use this robot so that people there can view and hear the lecturer. The lecturer can move around a physical space on campus such as the teaching room to respond to individuals or small groups of students. This pilot investigated how Sophie could use a telepresence robot to move around a campus room while working from home to engage with students' learning needs and facilitate small group learning activities. As in the following of the [Telepresence tour of the Bristol Robotics Lab](#) demonstrates the use of the telepresence robot 'Double' which is used in this project.

1.2 Research questions and objectives

Sophie was interested in how telepresence robotics technology could contribute to equality and accessible employment as a Reasonable Adjustment (RA) and posed the following main question:

[‘How can telepresence robots be used as a Reasonable Adjustment for staff teaching in Higher Education?’](#)

To gain insight into the use of telepresence, student feedback was sought, however it was made clear that the project was not to be an evaluation of Sophie's teaching or the student's learning outcomes.

The second research question was therefore:

[‘What is the student learning experience of teaching that uses telepresence and what are students' suggestions for improvement?’](#)

The third question aimed to identify the factors involved in wider application of telepresence technology:

[‘How can this pilot inform wider application as a Reasonable Adjustment for students and what might be needed for institution wide rollout?’](#)

Objectives:

- a) To capture the experience of an academic using a telepresence robot in Higher Education (HE) teaching and identify possible benefits of this technology as a Reasonable Adjustment to in-person teaching.
- b) To evaluate the student experience of a learning environment using telepresence assisted teaching.

- c) To consider whether telepresence could be offered as a Reasonable Adjustment and to identify the strategic and practical requirements for the HE institution including the role of personal assistant.

2. Methodology

Project design

Sophie led on aims, design, and data analysis while others in the team acted as co-researchers to assist and engage in key roles for timely and practical, embedded outcomes (N8 Research partnership, 2016). Senior management secured funding for the project as teaching and learning innovation and provided oversight.

Ethics

Ethics approval for the project included the consent process ([Faculty UWE Ethics Committee 2022](#)). In addition, we sought a supported and accessible process and further ethical measures included:

- Structured debrief meetings after each teaching session arranged with Tillie to support Sophie
- Pre-planned meetings with the module leader and line manager to feedback any issues that required a programme or university level response.
- The centring of Sophie’s lived experience in the use of autoethnography (detailed below)

Pilot plan

In discussion with the Sociology team, three consecutive seminars for the Sociological Practice: Becoming a Social Scientist level 1 module were identified for the pilot. It was thought that a consecutive sequence would allow students to become familiar with the novel delivery and be ready to offer their ideas and critique. Sophie also facilitated a session for postgraduate students undertaking the Assistive Robotics module where the students were familiar with the technology but were introduced to co-production and social models of disability in undertaking robotics design.

Table 1. Telepresence sessions

Telepresence Session	No. Students	Survey responses	Activity
Sociology Seminar – session 1	7	7	Research methods - qualitative interview practice with roleplay

Sociology Seminar – session 2	6	4	Historical comparison – Using visual materials to develop skills of comparison around the topic of homelessness.
Sociology Seminar – session 3	6	1	Assignment briefing, pair work and questions.
Guest Lecture - Assistive Robotics – session 4	21	5	Guest Lecture – Disability Rights & Robotics: using co-production.

An Associate Lecturer was engaged to set up the seminar room, to assist Sophie during sessions with any issues in the physical space, and a Robotics technician was present to resolve any technical issues. The module leader was also available to step-in and lead the session in the event of unforeseen technological failures to prevent any detrimental impact to students' learning.

In advance of the first telepresence teaching session, students were provided with an online Information Sheet (Appendix 1) explaining the project, their participation options and use of data. It included a link to the aforementioned filmed demonstration of telepresence so that they could learn about how this technology works. Students were reminded of the usual sources of support available at UWE and of the university complaint process. Students who participated in the survey, were entered into a prize draw to win a £25 Amazon Voucher.

Research Methods

Sophie used autoethnography to capture the experience of telepresence teaching. Autoethnography has been widely used to capture the lived experience of disability by utilising reflexive writing, presenting rich narratives and a deeper understanding (Nowakowski, 2016), often providing a platform for voices rarely acknowledged (Ellis, Adams and Bochner, 2011). A debrief schedule was used in meetings with Tillie following each teaching session (Appendix 2) to provide a structured approach to capturing the experience of each session. In subsequent meetings with Tillie, Sophie identified three interlinking themes by coding key points in each debrief set of notes and analysis across the sessions as set out in section 3.

Students were invited to give their feedback by completing an anonymous Qualtrics survey (Appendix 3) asking them for their feedback about their experience and ideas for future application. The survey embedded the consent and withdrawal process.

The analysis of the student survey data was by each session and across the sessions and is presented in section 4. We reflect on the methods used to gather student feedback below.

The feedback generated by the project team included points on technical ease, improvements, and reflections on their roles (section 5).

3. Themes

Inclusion

In each session I found myself expressing a sense of being there on campus experiencing meaningful inclusion within the seminar room, corridors, and offices.

‘I felt like I was on campus with them. I was.’

‘It strikes me that I am really there’

‘Felt I was part of a collegiate team, embodied’

The experience provided hope for a more general sense of inclusion within society and directions for future application of this technology.

‘That has made me feel like I am part of the world again’

‘Having this experience of inclusion – I want so much for it to go somewhere’

‘The mountain is making this available to all members of staff and students who would benefit from this so they can access the learning environment if they are not able to be in the room with their bodies’

Within the context of the pandemic and precarious work there was an ongoing reflection on how this project relates to and supports my right to work.

‘My rights as a disabled person and sometimes the lack of value I have because of the lack of opportunity for stable employment means that I work above and beyond what is expected, so I can be extremely exhausted. If I had access to things and feel safe and supported, I think about what I could achieve’

The impact of exhaustion demonstrates the cost to my wellbeing of working intensively, trying to prove my value and to feel worthy of inclusion whilst also maintaining a critical stance regarding the concept of ‘inclusion’.

‘In some ways it makes me feel ‘special’ a word used throughout my life, so I feel quite conflicted, this feels positive but also notably different from those around me.’

I like many others associate the term ‘special’ with being othered, as it was often used as a way to distinguish me from other children in school when I was growing up.

Relationships

The online teaching and learning environment has altered the ways in which students and lecturers relate to each other and limits communication to those who are speaking being visible, or via polls or chat box comments. Establishing working relationships with students has therefore been a challenge. However, building the rapport to encourage critical discussion and the opportunity for students to engage is essential to the learning journey.

This project provided the opportunity for the kind of pre-session interactions that being on campus allows where I could get to know the students and ask how their week had been.

‘How wonderful to be in the space with the students and not just in the ‘chat box’
‘It’s the first time I have been able to see them, to see their reactions’
‘I care about the students and I miss them, it’s the thing I am best at doing – demonstrating I care about their learning, wellbeing and journey through university – I am doing that again.’

An unexpected outcome of the project was the opportunity to interact with and nurture relationships with colleagues via telepresence and the impact this had.

‘I think it is a reasonable adjustment for all interactions, professional social interactions, having someone excited to see you in the corridor – it’s a very human experience’

At the beginning of this project, I was not aware of how much I had missed these everyday encounters, and quite how excluded I really have been from the relationships I have established in the workplace and more generally in wider society. It is not possible to have the corridor conversations or to notice the reactions of students to me and to each other when using on screen teaching. My ability to notice the affect of a space has been effectively diminished. Responses from colleagues beyond my team reflected assumptions around my on-campus absence with some commenting as if I had been ‘off sick’ rather than working *more* than full time. Others embraced the chance of a post session catch up with me as their valued colleague sustaining relationships that have been constantly expressed throughout my home-based working.

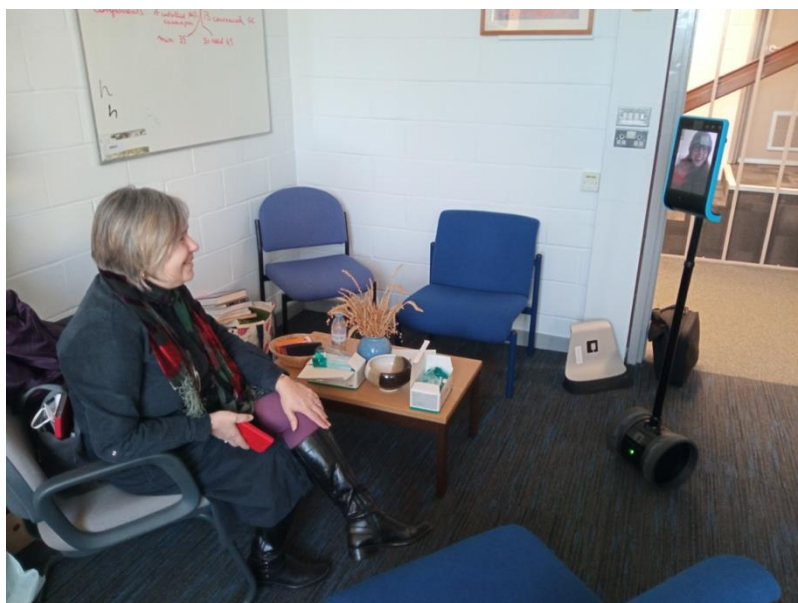


Figure 2. Using telepresence to catch up with colleagues on campus

Sense of self and value

When being asked about thoughts prior to sessions there was often feelings of anxiety present and this idea of being my 'best self', communicates how fragile my sense of self was at the beginning of the project.

Being asked to have my picture taken by the students, had an immediate impact on my value and sense of self.

'My face hurts from smiling so much'



Figure 3. Telepresence teaching in action with students

With that immediate feeling came the painful contrast to online life, exclusion, and the realisation of its impact on my wellbeing:

'For my own sense of self, place and belonging are quite important – I think a lot of the impact I am talking about right now is regarding to my own wellbeing, it feels like inclusion, a stark contrast to what life has been like'

'The value I have been missing, the overall exclusion, of people who have been shielding, everything I have not been able to access makes you question your own value as a person – I work very hard to demonstrate I have any value, am worth investing in, some of that due to precarious job, the governmental response to COVID, this is one of the moments I am hugely reminded that not only am I doing an ok job, but I belong in these spaces'

This experience provided the opportunity to further value the importance of utilising my own lived experience, and recognition of my contributions to the learning environment.

'I know that my experience is an important component to what I am able to bring. When I was an undergraduate, I went to a series of workshops about 'leadership by lived experience' and that has shaped my career and is a strong example of how I

can take this forward and reframe to really acknowledge the importance of that experience. I am beginning to believe it. I know it and I'm beginning to believe it.'

'You know about this project, you know this and can say it without a script and you teach models of disability and answer all the questions really well, you know what you are talking about'

After each session there was the intention to reengage with my physical body, to eat and to exercise. Although this project in many ways provided much energy and value it also led to feelings of despair regarding future directions and what may be missed if telepresence is not made more widely available.

'I would go to say thank you to the robot if I could but I can't so I'll just think it.'

'I am terrified it might not go past this project... with all the excitement comes all this worry'

'Try to leave feelings of hopelessness about the future.'

This sense of self and value that was gained from this project was about more than being a university lecturer it was about being there, being a person in the world, being seen and heard after so long.



Figure 4. Corridor Conversations

4. Student feedback

Student feedback centred on the opportunity to engage with their lecturer in a different way and offered a range of ideas of how telepresence could be expanded to have a global connection within and beyond the classroom.

The Robotics students made comments about the interaction having particular qualities that related to engagement with the lecturer.

‘Positive experience - more personal, and engaging than just a remote zoom-like lecture’

Students considered how this technology could be useful to everyone and made particular note of the benefit of people having a physical presence in a space.

‘There will be flexible needs-based travel to the location. Thus, it will give sense of physical presence to both students and people around the robot.’

‘Good. The most impressive thing is that I can actually be 'present' in the class. I can share my thoughts, discuss with my friends, ask questions. The only difference is that my physical body is replaced by a robot.’

The Sociology students highlighted the importance of having their lecturer in the learning space with them, and in particular having disabled academics in learning spaces.

‘A very novel experience that I'm pleased to have been a part of! And I hope it continues - I love the inclusivity of it!’

‘This allows teachers who can't come into the lesson, still be a part of our learning experience.’

‘Massively help vulnerable, ill and/or disabled lecturers to still engage in in-person teaching.’

The Robotics students also commented on inclusion: how it being supportive for those with anxiety, and those based in various locations around the world.

‘Might allow students to attend lectures in different countries. We have used it to allow a student to attend group practicals’

‘Allows people all over the world to collaborate, or those who otherwise couldn't attend in person due to disability. Also allows guest lecturers to teach all over the world’

The Sociology students, already familiar with the lecturer online, were excited about having the opportunity to share the classroom learning space.

‘A great opportunity to have a richer interaction with a seminar leader that I had only ever communicated with on blackboard before.’

‘I thoroughly enjoyed it. It was like Sophie was in the room with us.’

‘It was nice to finally meet her "in person"!’

The Robotics students imagined the scope of how telepresence could be used in the learning environment, to impact the student journey.

'Improve learning efficiency. Students can feel more engaged in the activities. Convenient for those students who cannot present due to COVID19 and those who are disabled.'

A comment from a Sociology student about how happy they were in the session stood out.

'I was really happy. I kept smiling during the seminar. This was so amazing to witness and I'm honoured to be a part of this experience.'

Overall, the student feedback reflects how the students felt engaged with the sessions, expressing a positive experience and satisfaction. Students were keen to express how important this experience was for them and led them to question the accessibility and inclusion for everyone in their learning community.

5. Roles and recommendations

As a lecturer using telepresence

The pilot showed how important it was that I took time to prepare for each session as telepresence teaching requires sustained focus and multi-tasking not unlike traditional teaching. Telepresence teaching has the added pressure of operating a computer remotely, driving the robot around a space and engaging with people while at the same time delivering the learning activities. I began each telepresence session 30 minutes in advance of the start of the seminar to ensure functionality of the robot and checking in with all staff present about the lesson plan and possible challenges for each sessions' particular activities. At home my own preparation included making drinks and having breaks ahead of and after the session, prior to the de-brief.

- Timetabling and workload planning needs to include 30 minutes for preparation and break after the session

The associate lecturer role – a personal assistance role

I was highly impressed by the Associate Lecturers who worked on this project in the role of personal assistant and the robotics technician in terms of the clarity they had of their role and boundaries regarding my role. Given the ease with which the telepresence technology works, we suggest that the role of Personal Assistant (PA) to the lecturer does not need to be undertaken by a member of teaching staff.

The feedback from the associate lecturers in the role of personal assistants and the robotics technician inform the following guidance for the PA role at the start of the session:

- Is the volume, ok? Screen bright enough? Is the sun reflecting on the screen? (These have to be adjusted in the room and not by the lecturer though the lecturer could ask these questions)
- Is the Internet connection causing fuzzy audio – students may find it hard to interrupt or ask questions because of this and need reassurance to avoid awkwardness
- Is there loud noise from other rooms distracting the concentration of the students listening to the robot and can that be resolved?
- Is the robot blocking the student view of the room computer screen?

It is key that the PA alerts the lecturer to these issues regardless of whether they are able to resolve them as the lecturer needs to be part of the decision-making process, leading on the student experience and in a position to know when to access technical support. Continuity with a PA or PA team would be therefore important.

Disability equality training is needed to include awareness of assumptions around technology and disability. In a debrief session I reflected on comments I received around my use of robotics technology as 'weird' or 'special' which made me feel othered again.

Technical team

For the technician and robotics team, there were some key points that require resolution:

- The audio was cutting in and out at times, but the telepresence operator was not able to detect that.
- The battery level for a full session needs to be sufficient to avoid having to adopt 'park mode' given that the main functionality sought is to move.
- While the feedback from the room was that it was easy for the robot to hear students and know where they were, the lecturer found it hard to hear the students and know where they were talking from in the room and the PA questioned whether the effectiveness observed would be viable with larger groups.
- Augmented reality dots on the floor and carpet for automatic navigation did not ease movement – use of manual drive was better.

Students

For students a short teaching and learning agreement could include the following:

- How to manage unavoidable late arrival
- How to raise issue with sound or screen etc
- How to call for response to a question

For the teaching team managing lateness, not being able to always see everyone's body language or hear over many conversations and noise outside the room are not new scenarios but do call for strategies. The use of telepresence improved visibility and audio of a group significantly better than an online session, and the resource of a PA would facilitate the lecturers' management of the space.

Programme team

No additional role is needed for the module leader or line manager other than the support already provided to all teaching staff. To support disabled academics' access to work when planning student learning activities, the following are proposed:

- Mandatory disability equality training is recommended for all academic staff for a shared understanding of telepresence and reasonable adjustments.
- Module leaders to consider when is best to use telepresence technology for an interactive session or when an online presentation is more suitable given the task.
- Module leaders should consider the suitability of teaching rooms, timing, location, and type of activity in planning.

For the robotics session the first part of the session was a lecture providing content on the topic, and the second half was more interactive.

'They felt comfortable enough to ask several questions, and they seemed to enjoy the interaction. I think the interaction that was created was far more "human" and engaging than the one that could be obtained through a videoconference.' (Module leader)

6. Key messages and next steps

The final debrief was used to identify key messages and next steps.

- a) What stands out from your analysis that we need to understand?

This project showed the contrast of exclusion and inclusion that is so sharpened in the context of COVID-19. How have my colleagues noticed that I haven't been there? I have been at work, working in a silo of one. I have adapted. I have created a professional working environment in my living room, bought technology, arranged Reasonable Adjustments at home with the university and had remote physio and various other health support services. I have existed in a virtual social space for two and a half years, here at home. Using telepresence really does feel like 'being there' without being there. The way it works – hearing the robot go over different surfaces gives me a sense of the space and I can see how people are responding to me using my senses in a meaningful way – that not possible in an online lecture.

- b) If the university was to provide telepresence to academic staff what would need to happen?

Universities have become more inclusive with more people having opportunity to access higher education than ever before – the use of telepresence could progress that mission – it fits in with all of UWE's core values. This technology requires minimal instruction, technical support akin to setting up any university session and a personal assistant to provide in-class support to the lecturer. Students can gain from a diverse staff teaching community, experience inclusion and as part of their learning journey, can imagine new futures and how such technology can enable access to global cultural spaces.

- c) To bring about those changes, what needs to happen next?

We suggest universities capture and develop examples of the phenomenal learning that has occurred around flexible innovative working, belonging and meaningful inclusion. This small inhouse, cross disciplinary pilot aimed for wider development, has been one such example. However, the terminology of a 'post COVID world' reflects mainstream or 'herd' narrative rather than the reality given that many people are shielding on medical advice and risk losing current employment and hope of further employment (TUC, 2022). An edict stipulating on-campus programme delivery risks safety for both staff and students. The current UN policy intention is to build a disability inclusive world which involves disabled people in tracking and evaluating disability inclusion (UN, 2020). We therefore propose a further co-production project towards national and wider roll out and to end the 'silo of one' experience.

The next stage would involve two universities identified to bring social science, robotics, and co-production expertise. The co-production team would include higher education leads, academics, technicians and students, and partner organisations such as [WECIL](#) and [Access to Work](#) to:

- i. Develop an interactive online equality training mini module around how to support relationships with staff and students using robotics technology
- ii. Identify and establish the university and employment support infrastructure necessary for staff and students to access telepresence technology
- iii. To evaluate students' real-world experience of inclusion using robotics technology towards the social justice mission of universities

For future work it is vital that for each site, disabled academic staff have the lead role and that their support is built into an accessible co-production research process. The team would operate as a whole, but it is also necessary for disabled staff and students to have the opportunity for separate safe spaces to reflect and generate knowledge for action that is critical and aimed towards social justice.

Afterword.

Like many disabled people I share my lived experience with the aim of bringing about meaningful social change. I was supported throughout this project by my co-researcher Tillie Curran: solidarity is vital. This pilot project has led to the agreement that I will be using telepresence technology as a reasonable adjustment to teach in the coming academic year.

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8. Appendices

Appendix 1 Student Information Sheet

Appendix 2 Debrief Schedule

Appendix 3 Student feedback questions

Appendix 1



Telepresence teaching in Higher Education as Reasonable adjustment pilot project – Student participant information sheet and consent form

You are invited to take part in this teaching and learning pilot project taking place at the University of the West of England, Bristol. It is funded by the University of the West of England. Before you decide whether to take part, it is important for you to understand why the pilot is being done and what it will involve. Please read the

following information carefully and if you have any queries or would like more information please contact Sophie Savage, Associate Lecturer, Faculty of Social Science, University of the West of England, Bristol sophie.savage@uwe.ac.uk

Who is organising and funding the research?

The project lead is Sophie Savage - Associate Lecturer in Sociology, Dr Tillie Curran - Visiting Fellow and Dr Virginia Ruiz Garate - Wallscourt Fellow in Intelligent Assistive Robotics are co-investigators.

Dr Virginia Ruiz Garate - <https://people.uwe.ac.uk/Person/VirginiaRuizGarate>

Dr Tillie Curran - <https://people.uwe.ac.uk/Person/TillieCurran>

Sophie Savage - <https://people.uwe.ac.uk/Person/SophieSavage>

What is the aim of the research?

The project is looking at the use of the telepresence robot as a Reasonable Adjustment for teaching in Higher Education in the context of COVID19. COVID19 provides a challenge for safe on-campus teaching that has always been present for many disabled academics. The use of telepresence robots potentially offers a solution and may contribute to an inclusive learning environment. Telepresence robots are devices which can be operated by anyone with an internet connection that include video-camera, a screen, speakers, and microphones. The operator can move this robot around a physical space so that people there can view and hear the lecturer operating the device.

The following link opens in a new window for a [Telepresence tour of the Bristol Robotics Lab](#) demonstrating the use of the telepresence robot 'Double'.

Aim:

This project aims to pilot the use of a telepresence robot to teach students on-campus. A disabled, isolating academic will deliver a selection of seminars using the telepresence robot to test its value as a Reasonable Adjustment to teaching in-person. The use of telepresence is to enable the academic to work with individuals and small groups with the facility to move around the campus room. It is anticipated that the student experience is consistent and equitable when compared to on-campus or online teaching.

Objectives:

- a) To capture the experience of academics using telepresence robots in HE teaching who would benefit from telepresence robotics technology as a reasonable adjustment to in-person teaching. For example, staff who have been shielding.
- b) To evaluate the student experience of a learning environment using telepresence assisted teaching.

c) To consider whether telepresence could be offered as a reasonable adjustment and to identify the strategic and practical requirements for the HE institution including the role of personal assistant.

We use the term 'shielding' here, to refer to those instructed to shield at home from COVID-19 following governmental advice as they were classed as clinically extremely vulnerable to COVID. Though 'shielding' is no longer a part of government measures, many people are continuing to take additional steps to mitigate risk around possible exposure to COVID as they are under greater risk.

'Reasonable Adjustment' is the legal term to describe measures that enable disabled people to work, and The Equality Act 2010 is the legislation which requires an employer to make reasonable adjustments. Reasonable adjustments can include access to equipment, and resources such as a personal assistant. For this project the disabled academic is using a telepresence robot and a personal assistant to access in-person teaching.

What are our research questions?

Our main question is:

'How can telepresence robots be used as a Reasonable Adjustment for staff teaching in Higher Education?'

Supporting questions are

'What is the student learning experience of teaching that uses telepresence and what are students' suggestions for its improvement?'

'How can this pilot inform wider application as a Reasonable Adjustment for students and what might be needed for institution wide rollout?'

To help us answer these questions Sophie Savage will be using the telepresence robot from home with students on-campus working in small groups for their seminars. Sophie will be using autoethnography to capture the experience. This process will include de-briefing sessions with Dr. Tillie Curran about the experience after each session and keeping a research journal.

Why have I been invited to take part?

As a student on the Sociological Practice: Becoming a Social Scientist module in the seminar group where telepresence will be used, we are interested in gaining your experience and suggestions.

What do I have to do?

We do not need to ask you for any personal data, but we will be asking for your feedback on the use of Telepresence in your seminar using an online survey Qualtrics.

Do I have to take part?

Your participation in the survey is entirely voluntary and you can exit the survey to withdraw from it at any point prior to its submission. The seminar will be the same one for students participating in the survey or opting not to participate so you are not disadvantaged if you choose not to participate in the survey. The survey does not ask for your name and the feedback you give will not be identifiable.

What are the benefits of taking part?

The advantage of your participation is to inform the use of this new technology and potentially in the future for students to use telepresence robots when they are not able to attend in-person. If you

choose to participate in the survey, you will be entered into a prize draw to win a £25 Amazon Voucher.

What are the possible risks of taking part?

We do not foresee or anticipate any significant risk to you in taking part in this study. We have undertaken a risk assessment regarding the use of the telepresence robot and set out measures to ensure its safe use – see Risk Assessment.

What will happen to your information?

The survey data will be securely stored on a UWE One Drive folder accessed only by the above researchers, Sophie, Tillie, and Virginia and will be destroyed at the end of the project.

Where will the results of the research study be published?

The results of this study will be analysed and used in a report made available on the University of the West of England's open-access repository and will also be made available on our disabilityrightsandrobotcs.co.uk website. Anonymous and non-identifying direct quotes may be used for publication and presentation purposes. The analysis and key messages may also be used in conference papers and peer-reviewed academic papers.

Who has ethically approved this research?

The project has been reviewed and approved by the Faculty University Research Ethics Committee. Any comments, questions or complaints about the ethical conduct of this study can be addressed to the Research Ethics Committee at the University of the West of England at:

Researchethics@uwe.ac.uk

What if something goes wrong?

The telepresence robot will have been tested for use in the seminar. There will be an Associate Lecturer setting up your seminar room and if there are technical issues, the IT team and the module leader are available. If you need any support during or after the seminar due to the content or other matters, you can contact the module leader, your tutor or student services.

What if I have more questions or do not understand something?

If you would like any further information about the research, please contact in the first instance: Sophie Savage email sophie.savage@uwe.ac.uk

Debrief Schedule

This schedule is used by Tillie Curran to ask Sophie for thoughts about using telepresence when teaching. It aims to gain insights into the experience as well as any practical issues.

Date of debrief:

Date of seminar:

Using telepresence from your home for the seminar -

1. What were your thoughts in the hour prior to the seminar?
2. What were your thoughts during the seminar?
3. What were your thoughts immediately after the seminar?
4. What stands out now?
5. What would you say about using it and its value or limitations?
6. What will you do differently for the next seminar?
7. How are you feeling in terms of your identity and situation in your role as HE academic?
8. What will you want to leave behind today and what will you want to take forward to the next seminar?
9. What will you do to finish this project work for today?



Appendix 3 – Student feedback questions

Seminar 1

1. What were your thoughts about the first seminar using telepresence?
2. Please describe your experience of telepresence teaching today
3. Is there anything you would suggest for the next seminar?

Seminar 2

1. What was your experience of the use of telepresence in the seminar today?
2. How might the use of telepresence contribute to equality for academics?
3. What could be improved for the next seminar?

Seminar 3

1. What was your experience of the use of telepresence in your seminar today? What stands out for you?
2. How might telepresence be of value if used by students?
3. What improvements can you suggest?

Evaluation

1. What do you see as the benefits of being part of the pilot?
2. Did you feel that the suggestions you may were considered?
3. If there was a further research project to develop telepresence, what should it include?