

Postdoctoral Researcher in Human-Centred AI

Indicative (may not be final)

Expected Start Date: December 2026

Expected Salary: £51174 (68,578 USD) – KCL Grade 6.36)

Contact and Principal Investigator: timothy.neate@kcl.ac.uk

Principal Investigator website: tdjneate.github.io

Project Website: tactproject.uk

Based: King's College London (Bush House), London, UK

Expression of interest: [fill this form](#)

Job Description

The Department of Informatics at King's College London is seeking to appoint a Postdoctoral Researcher with experience in AI and HCI/accessibility.

This is a fixed-term, three-year research position.

The successful candidate will work on the UKRI Future Leaders Fellowship Project – *Total Communication Technologies to Support Accessible Communication (TACT)*, led by Dr Timothy Neate. The project aims to re-imagine technology-mediated communication for people with communication disabilities, with a focus on supporting both verbal and non-verbal communication. The fellowship is funded for four years (until December 2029) with the possibility of extension to seven.

You will have access to exceptional resources for personal development, travel and equipment. You will be part of a collaborative environment that includes partners and mentors from academia, industry, and the charity sector. Partners include Microsoft Research, Tobii Dynavox, Transport for London, Hidden Disabilities, Aphasia Re-Connect, Dyscover, and Speech and Language UK, as well as academic collaborators such as Prof. Madeline Cruice (City, University of London), Prof. Jonathan Lazar (University of Maryland) and Prof. Karyn Moffatt (McGill University).

TACT Overview

TACT is an interdisciplinary project that brings together human-computer interaction, human-AI interaction, accessibility, and language and communication science. The project aims to rethink how technology supports communication, with a focus on the experiences of people with communication disabilities. Its goal is to make communication more accessible by emphasising total communication – the use of both verbal and non-verbal forms – in assistive technologies and in everyday platforms such as video conferencing. TACT will explore both the opportunities and risks of using emerging AI models in this area, and it will examine how discreet, wearable devices such as smartwatches and smart glasses can support communication in real-world settings.

The fellowship will conduct deep ethnographic and interview studies with two exemplar communication disability populations (people with aphasia and people with developmental language disorders). Building on these insights, we will co-design technologies with end users that enable total communication, integrating both verbal and non-verbal strategies. These technologies will then be evaluated through controlled studies and in situ trials with project partners, including within dynamic environments such as Transport for London infrastructure.

A full Gantt chart for the project can be found in the final page of this pdf.

This PDRA would be joining around Month 13.

Project Background

Communication is an important part of daily life. It usually combines spoken language with non-verbal cues such as gestures, tone of voice, or physical objects. For example, someone might point to a mug and raise a finger to mean “*tea with one sugar*” instead of saying it aloud. Some people also use cards or tools to explain their communication needs. This combination, known as *total communication*, is especially important for the 14 million people in the UK who experience communication difficulties. This includes around one in three stroke survivors and two to three children in every classroom

Despite its importance, total communication is often overlooked in the design of technologies, from video conferencing tools to specialist assistive technologies.

The TACT project aims to re-imagine how technology can support communication for people with disabilities. Working with people with aphasia and developmental language disorders, it will explore how new technologies, including AI, can enable more inclusive and flexible ways of communicating.

The Role and Its Context

The postdoctoral researcher will be responsible for leading the development work in the project; integrated within the core HCI and accessibility team. The researcher’s focus will be on exploring the rapid development of technologies, inducing the usage and development of AI models, as well as supporting the core HCI work. The role involves

working closely with people with aphasia and developmental language disorders, supported by speech and language experts from both academia and partner charities.

The researcher will also be expected to lead high-quality publications in HCI/accessibility venues such as ACM CHI and ACM ASSETS, as well as venues focusing on AI (e.g. AAAI) and AI ethics (e.g. ACM FAccT), with guidance from the PI, Co-I, and advisory team as appropriate.

The researcher will collaborate closely with another postdoctoral researcher specialising in accessibility and design (started January 2026) a speech and language therapy researcher employed on the project. They will also have the opportunity to support the supervision and development of one PhD student funded directly by the project (starting October 2026), another two PhD students working alongside the project (starting October 2025), and several master's and undergraduate project students/interns.

The role is supported by a very generous budget for travel and training. This includes visits to project partners in the USA (Microsoft Research) and Sweden (Tobii Dynavox), as well as to mentors in the USA and Canada. In addition, there is dedicated funding to attend both international and UK conferences. The fellowship also provides a budget to help with caring responsibilities, such as childcare during conference travel and other engagements.

The researcher will join the Human-Centred Computing (HCC) group at King's, which provides a supportive and collaborative environment and an exciting mix of disciplines. We are currently one of the top UK HCI groups in publishing at ACM CHI.

Dr Neate currently leads a team of two researchers and five PhD students, with a strong record of success. The team has won 14 paper awards at major conferences, including CHI and ASSETS, and has secured around £3M in research funding from a range of sources.

This post is offered on a fixed-term contract for 36 months (three years).

Key responsibilities

1. Work closely with the project team to ensure that the aims and objectives of the project are achieved in a timely and effective manner
2. Lead human-centered AI work
3. Conduct iterative development of functional prototypes at a range of fidelities
4. Lead papers for publication in conferences, journals, etc.
5. Support other researchers in the development of publications in conferences, journals, etc.
6. Participate in relevant events within the institution or externally, to build contacts to facilitate the exchange of information and advance thinking
7. Support events, conferences, and workshops run by the project to develop the project outputs and research agenda
8. Contribute to the development of further research proposals

The above list of responsibilities may not be exhaustive, and the post holder will be required to undertake such tasks and responsibilities as may reasonably be expected within the scope and grading of the post.

Skills, knowledge, and experience

Essential Criteria

1. PhD (awarded or close to completion), or equivalent experience in human-computer interaction, AI or similar
2. Expertise in AI systems development – for example the deployment, development and/or fine tuning of AI models
3. Expertise in prototyping in a range of technologies
4. Expertise in human-computer interaction and/or accessibility
5. Key roles in leading publications in related HCI and/or AI venues (e.g., CHI, ASSETS, AAAI), ideally with paper awards or other recognition
6. Excellent communication – i.e. written and verbal skills
7. Excellent organizational and teamworking skills

Desirable Criteria

1. Expertise in co-design with users with accessibility needs
2. Experience with Human-AI interaction
3. Experience with physical prototyping – e.g. 3D printing, electronics.
4. Experience in working with HCI for videoconferencing
5. Experience working with AR/VR
6. Experience working with wearables