

THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF HUMANITIES

FACULTY OFFICE - HUMANITIES

DIVISION OF HUMANITIES DEAN'S OFFICE

LECTURER OR SENIOR LECTURER IN AI TRUST AND SECURITY

VACANCY REF: HUM-027478

Salary:	Grade 7/8 £46,735 to £70,579 per annum, depending on relevant experience
Hours:	Full time (1 FTE)
Duration:	Permanent
Location:	Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:

Name: Chloe Jeffries

Email: chloe.jeffries@manchester.ac.uk

Overall Purpose of the Job

We are seeking to appoint a Lecturer / Senior Lecturer (1.0FTE, permanent) as part of a new interdisciplinary research team working in the broad field of AI Trust and Security to build on our existing strengths in Digital Trust, Security and Society. These posts form part of a new £4.73m University investment in AI Trust and Security and will be accompanied by 6 Postdoctoral Research posts; 6 funded PhDs and new investment in high performance computing over the next 5 years. The postholders may be located in any one of the four Schools of the Faculty of Humanities and will form a new cross-cutting research cluster within the [Centre for Digital Trust and Society](#).

We wish to appoint innovative, engaging and dynamic colleagues who will be able to enhance the quality of our teaching and research and help drive the Faculty's vision to be a research leader in AI Trust and Security. How can society trust AI? How can we ensure the security and robustness to exploitation of AI technologies? What are the barriers to and/or enablers of trust in AI? At UoM, we see AI security as part of a set of broader issues of trust and trustworthiness, distrust and trust exploitation, and trust-building and resilience, and promote an interdisciplinary approach to these issues. We are looking to appoint people from any discipline who can contribute to this multi-dimensional and collaborative approach to AI Trust and Security. This might relate to:

- researching the competence, reliability, and trustworthiness of AI technologies
- analysing the social responsibility and ethical dimensions of AI and its implementation for social good
- exploring the relational and linear nature of trust relations between AI, humans and organisations (Human-AI teaming)
- crafting the legal, regulatory and governance landscape to ensure the integrity of AI
- interrogating the ways in which AI can be manipulated or exploited for malicious reasons, whether for criminal enterprise, such as organised cyber frauds, or to undermine societal principles, values and processes, as we see with mis/dis/mal-information
- analysis of large language models

All such issues require an understanding of the socio-technical aspects of AI.

For this post and to complement recent L / SL appointments as part of our new interdisciplinary team, we are particularly interested to receive applications relating to:

Mis/disinformation, democracy and trust — threats and opportunities that digital technologies pose to trust and security in democratic systems and the information environment.

Or

Candidates working at the interface of **AI Decision Science and Trust**, especially in areas such as threat detection and mitigation in multimodal data, uncertainty and risk quantification and handling, explainability to improve trustworthiness, mathematical models and optimization to tackle cyber security problems, and human-in-the-loop cyber systems. We are particularly interested in emerging issues around 'Human-AI teaming'.

Please indicate in your application whether you are applying for a Lectureship or Senior Lectureship post, and which School and discipline you would see as the best fit for your research and teaching profile.

Candidates appointed at Senior Lecturer level will be expected to take on a greater level of responsibility in relation to research and programme-related teaching, service and leadership roles.

Key Responsibilities, Accountabilities and Duties

The duties of the person appointed will include:

Research

- Conduct research and produce high quality, internationally excellent publications in an area of AI Trust and Security; or a closely related area. We are open to people who create, apply or observe AI in their research
- Apply for external research funding, including as part of interdisciplinary teams
- Develop impact and engagement with non-academic audiences and partners, including those from industry

- Disseminate research at conferences and other forms of academic engagement
- Supervise PhD students and mentor early career colleagues
- Contribute to the intellectual development and activities of the Centre for Digital Trust and Society and the Faculty's AI Trust and Security investment

Teaching

- Design and deliver high quality teaching and learning materials and provide timely feedback to students
- Supervise postgraduate dissertations
- Set, mark and assess coursework and examinations of various types
- Develop teaching at UG and PGT levels, in a variety of settings, from small group seminars to large lectures
- Provide appropriate academic advice and support to students both individually and in groups
- Contribute to strategic programme design and development, which may include developing programmes for Executive Education and the University College for Interdisciplinary Learning (UCIL)

General

- Contribute to faculty strategies and policies relating to the use of AI in research and teaching
- Undertake administrative or academic service, pastoral and other duties as may be assigned by the applicant's Head of Department/Division and Head of School
- Ensure that all Health & Safety policies, procedures, rules and regulations are adhered to

Person Specification

Essential criteria

- A PhD or equivalent in a relevant topic
- Strong expertise in methods and knowledge relevant to AI Trust and Security
- Committed to working with scholars across disciplines, including business and accounting, data science, computer science, computational linguistics, sociology and criminology, linguistics, social and behavioural science, engineering, natural sciences, and mathematics
- A track record of output of high-quality, peer-reviewed research publications or other equivalent recognised forms of research output appropriate to the discipline
- Previous involvement in applying for grants and the ability to take the lead on compiling grant applications (for SL, successful track record of applying for funding)
- Track record of engaging with external partners from industry, policy, government agencies (desirable for L and expected for SL)

- The skills, knowledge, and enthusiasm to drive the Faculty's vision to be a research leader in AI Trust and Security
- Able to work as part of a team to develop and exploit synergies between clusters and between the University's of Manchester's [Digital Futures](#) platform themes
- Experience or demonstrable ability and interest in delivering quality postgraduate and/or undergraduate teaching
- Experience or demonstrable ability to supervise doctoral and other research projects
- Substantial experience of presenting at national and international meetings
- Ability and enthusiasm to learn new skills

Desirable criteria

- Demonstrable capability to innovate in UG and PG curricula
- Fellowship or higher with the Higher Education Academy
- Evidence of impact in policy or practice
- Demonstrable interest in our social responsibility agenda, for example work related to the Sustainable Development Goals

The University

The University of Manchester, formed in 2004 by bringing together The Victoria University of Manchester and UMIST, is Britain's first chartered university of the 21st century. Our institution is the largest single-site higher education institution in the country, offering students a greater choice of degree programmes and options, and even better facilities and support services.

Our purpose is to advance education, knowledge and wisdom for the good of society. Our vision is to be recognised globally for the excellence of our people, research, learning and innovation, and for the benefits we bring to society and the environment. You can read more here: [Our future: vision and strategic plan | The University of Manchester](#)

The University of Manchester is a member of the Russell Group of research-intensive universities and is placed consistently highly in both national and international surveys of university education.

In April 2021 the University of Manchester was named the world's number one university in the Times Higher Education (THE) Impact Rankings, topping the table of more than 1,200 universities from around the world on action taken towards the United Nations (UN) Sustainable Development Goals (SDGs). The UN's 17 SDGs are the world's call to action on the most pressing challenges and opportunities facing humanity and the natural world. Manchester offers extensive provision for research.

We have secured 27th place in the QS World University Rankings in June 2023. The University of Manchester strives to make our community a welcoming, caring and enthusiastic one, fuelling ambition with opportunities and support to help us all achieve our personal and professional goals.

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The University offers a range of support for new staff, a great employment package that includes pension schemes, flexibility in approach, family friendly initiatives, development opportunities and services to support your health & wellbeing. In addition, there is a host of other staff benefits and excellent campus facilities. We care deeply about career and personal development, offering a structured induction programme for new staff, an annual performance and development review, staff training for all career stages and mentoring opportunities to support your career development.

As a global institution, situated at the heart of a lively, culturally diverse city, we welcome applicants of all nationalities.

General university information can be found on our website: www.manchester.ac.uk.

The Faculty of Humanities

The [Faculty of Humanities](#) encompasses academic areas as diverse as Arts, Education, Law, Social Sciences and Business & Management. The Faculty consists of four schools; Environment, Education and Development; Social Sciences; Arts, Language and Cultures; and the Alliance Manchester Business School. It has 35 subject areas, a total income over £350m per annum, over 20,000 students and some 1800 academic and 600 professional support staff. It is the largest Faculty of the Humanities in the UK. REF 2021 results confirmed The Faculty and the University of Manchester as a genuine international powerhouse, with exceptional performances in a wide range of disciplines

All the disciplines in the Faculty recruit students globally and the overwhelming majority of our academics have international reputations for the quality of their research. The University is committed to the ongoing enhancement of the international profile of the Faculty of Humanities.

Centre for Digital Trust and Society

The Centre for Digital Trust and Society is a research centre within the University's Digital Futures programme, drawing together and developing a vibrant interdisciplinary community of researchers to address the challenges to trust and security posed by new technologies and uses of data. The research at the core of our Centre includes, but is more than, 'cyber security', encompassing the security and resilience of underlying technologies, work practices and processes, law and regulation, human behaviour, social norms and context. It includes the social concerns that emerge from big-data analytics, intrusion, cloud computing and the internet of things. Issues of governance, and standards also feature, alongside more traditional cyber security concerns, such as cryptography, access control, and verification.

Our Centre consists of a thriving research-active community across all three UoM faculties, with expertise sociology and criminology, through data science and business, to computer science and maths. The Centre focuses on a range of topics relevant to trust and security, making a unique and distinctive contribution to research, teaching, business, and public-sector policy and practice. The Centre has six research clusters, within which we build interconnected communities of researchers, explore relevant issues, and secure new grant funding. These are:

- Privacy and Trust
- Digital Technology and Crime
- Workplace and Organisational Security
- Trusted Digital Systems
- Democracy and Trust
- Advanced Mathematics

For more information on the CDTS you can visit the website [here](#).

In addition to the Centre for Digital Trust and Society, candidates should wider initiatives in the Faculty of Humanities and relevant initiatives beyond the Faculty of Humanities (such as the Centre for AI Fundamentals in the Faculty of Science and Engineering and the Christabel Pankhurst Institute for health technology research and innovation in the Faculty of Biology, Medicine and Health). Candidates should also connect with centres and research groups in the School in which they will be based.

Alliance Manchester Business School (AMBS)

A number of different research centres, groups and institutes at AMBS work on the intersection of AI and its organisational implications. For example, the [Decision and Cognitive Sciences Research Centre](#) is a part of a 4-year Collaborative Doctoral Training Programme (CDT) with the University of Cambridge, exploring the use of AI to support decision making in complex systems. Other research units with relevant projects include [The Productivity Institute](#), [Centre for Financial Technologies Studies](#), [The Manchester Institute of Innovation Research](#), and the Digital Transformation Research group .

School of Social Sciences (SoSS)

The School of Social Sciences is home to the Centre for Digital Trust and Society as well as the [SPRITE+ Hub](#), an EPSRC-funded consortium of five universities that connects researchers, practitioners and policymakers involves in issues relating to security, privacy, identity and trust. Researchers also work on issues of digital trust in the department of Law and the department of Politics, with particular expertise in how technology is reshaping elections and political campaigns and the 5-year [DiCED](#) project funded by the European Research Council.

School of Environment, Education and Development (SEED)

The School of Environment, Education and Development houses the [NERC Digital Solutions Hub](#), an £8m initiative to create interlinked toolkits that that exploit environmental and other data to create innovative digital services that deliver economic, societal and environmental benefits across the UK. The [Global Development Institute](#) (GDI) includes the [Centre for Digital Development](#) and a new ESRC Large Grant examining the use of AI and Earth Observation in conservation. The Department of Geography runs an established MSc in Geographical Information Systems and the [Manchester Institute of Education](#) has invested in a new Lecturer in Generative AI for Education as part of its Digital Technologies, Communication and Education Research and Scholarship group.

School of Arts, Languages and Cultures (SALC)

SALC's [Centre for Digital Humanities](#) brings together staff, students and external partners working at the intersections of the humanities and technologies. The School has particular research strengths in spatial humanities, distant reading, digital media studies, science and

technology studies, data visualisation, heritage digitization and digital visual culture. Many researchers work closely with the [John Rylands Research Institute and Library](#), applying cutting edge digital methods and technology to Special Collections. The School's MA in Digital Media, Culture and Society offers advanced interdisciplinary study in the critique and use of digital media and technology with a particular focus on their cultural and societal implications. The Minor in Digital Humanities allows undergraduate students to lead their subjects in new directions and participate in key debates of our time. The School also has expertise in Natural Language Processing and computational linguistics.