Xixiang Nie

A responsible a Human-AI Interaction Designer and Creative Technologist passionate about
Ethical Technology, Research through Playful Design, Physical and Tangible Computing.

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EDUCATION

School of Computer Science, Northumbria University **09/2025-09/2029**
PhD in Computer Science (UKRI AI Centre for Doctoral Training in Citizen-Centred AI)

The Institute for Design Informatics, University of Edinburgh **09/2023-06/2025**
MA Design Informatics with First Class Honours
Relevant Courses: Case Studies in Design Informatics 1, Histories and Futures of Technology, Data Science for Design, Design with Data

Winchester School of Art, University of Southampton **09/2019-07/2023**
BA (Hons) Graphic Arts: graphic design with First Class Honours
Relevant Courses: Critical Reflection of Specialism, Creative Futures

PUBLICATION

Xixiang Nie and Xin Shu. 2026. Somaditation: A Multisensory VR Meditation Experience with a Wearable Glove. In *Proceedings of the Twentieth International Conference on Tangible, Embedded, and Embodied Interaction (TEI '26)*, March 08–11, 2026, Chicago, IL, USA. ACM, New York, NY, USA, 5 pages. https://doi.org/10.1145/3731459.3786212 (Just Accepted)

Nie, X. (2023). "The Illusion of Democracy." In D'Souza, Ed. (ed.). *Democratic Futures*. Winchester: Studio 3015, University of Southampton, pp. 96-97. ISBN 978-1-3999-5370-2. Available from: https://wsarotunda.soton.ac.uk/alumni/democratic-futures/

RESEARCH PROJECTS

Edinburgh Science Festival **01/2024-03/2024**
Phenological Gearbox
Phenological Gearbox is supported by the Design Informatics Institute at the University of Edinburgh and part of Edinburgh Science Festival 2024. Our interactive installation is a responsive device that explores how human behavior concerning greenhouse gas emissions impacts phenological mismatches.

VISHUB **11/2023-12/2023**
VR Insights: Unmasking Workspace Gender Bias
The University of Edinburgh's VISHUB supports this data science group project. As a data analyst and interaction designer, I led Python graph analysis and VR interaction. It aims to highlight workplace gender inequalities through immersive VR scenarios.

Traveltech for Scotland **10/2023-12/2023**
Navibrella
Navibrella is an innovative concept product service supported by the Design Informatics Institute at the University of Edinburgh and Traveltech for Scotland. This project leverages data-driven technology in a tangible product to augment the emotional enhance the dynamics of urban cultural exchanges through human-data interaction.

Institute of Sound &Vibration Research 02/2023-06/2023

Extended MetaMeditation

I have collaborated with the Institute of Sound and Vibration Research at the University of Southampton on a project to enhance sound perception through a multisensory meditation experience. This project uses data from MIDI glove wearables to convert participants' hand movements into auditory and tactile feedback, influencing the virtual reality visuals. Finally, the project was presented on campus.

UK Parliament 10/2022-12/2022

The Illusion of Democracy

This study, in collaboration with the UK Parliament and led by Professor Ed D'souza in the Social Practice Lab, investigates the influence of social media on the consumption of political information. I employ the data-driven interaction to uncover potential democratic risks associated with data breaches in social media platforms. My outcomes were featured in the "Democratic Futures" exhibition and have been chronicled in an academic book edited by Professor Ed D'souza.

EXHIBITIONS

Designing Data Humans in 2024 Edinburgh Science Festival, Inspace gallery, University of Edinburgh
Winchester School of Art BA Degree Show 2023, Winchester School of Art, University of Southampton
Democratic Futures Exhibition 2023, Winchester School of Art, University of Southampton

WORK EXPERIENCE

Research Assistant in Human-Data Interaction 05/2025-present

School of Electronics and Computer Science, University of Southampton

- Conducted an interdisciplinary research project on Art, Tangible Interface and HCI.
- Developed a shape-changing data physicalisation provotype to raise public awareness of data capitalism through its design interventions, and the first-author Pictorial has been submitted to the ACM DIS 2026.

Student Ambassador Lead 02/2023-06/2023

Widening Participation & Social Mobility, University of Southampton

- Reimagined elementary education through non-technical interactions, gaining insights into primary school dynamics through workshops.
- Redesigned primary school curricula by incorporating graphical cards and interactive activities while leading weekly sessions in local primary schools.
- Communicated curriculum updates to the university and provided regular progress updates to the Southampton Bassett Green Primary School as a student ambassador.

Student Representative 10/2022-06/2023

Winchester School of Art, University of Southampton

- Investigated and collected students' feedback to convey students' democratic voice.
- Met with professors in the Department of Design to discuss future course improvement.

Academic Skills Peer Leader 09/2022-02/2023

Winchester School of Art, University of Southampton

- Shared experiences with first-year students while conveying the importance of human-centred design principles and interaction concepts in traditional graphic arts study.
- Identified their challenges in studio projects or essays and organized workshops to enhance their critical thinking and research skills, focusing on the direction of user experience design and interactive technologies.

Xixiang Nie

PUBLICATIONS - LIVE SCHOLAR UPDATE

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SoK: A Privacy-Centered Framework of Digital Risks and Harms for Immigrant Populations — 2027

Shijing He*, Ashleigh Grabow*, Xixiang Nie, Rahat Masood, Noura Abdi, Salil S. Kanhere, Ruba Abu-Salma
Proceedings on Privacy Enhancing Technologies (PETS) 2027(1), Delft, Netherlands.

Casting the Shadow for Understanding 'Reasoning Ghosts' — 2026

Xixiang Nie, Xin Shu, Matthew Wood
Proceedings of the 2026 Conference on Creativity and Cognition (C&C '26), London, UK, pp. 1641-1647.

DataMorph: Designing a Metaphorical Data Factory Provotype to Physicalise Invisible Data — 2026

Xixiang Nie, Eike Schneiders, Weijia He
Proceedings of the 2026 Conference on Creativity and Cognition (C&C '26), London, UK, pp. 1533-1540.

ShadowAI: Fostering Children's AI Literacy and Critical Understanding of AI Reasoning — 2026

Xixiang Nie, Maureen Mwadime, Xin Shu, Matthew Wood
Proceedings of the 2026 Conference on Creativity and Cognition (C&C '26), London, UK, pp. 1470-1477.

Shadows, Doodles and Dice: Three Demos for Inter-generational Interactions around AI Literacy — 2026

Dan Jackson, Luis Carvalho, William Imoukhuede, Christopher Jackson, Xixiang Nie, Maureen Mwadime, Victoria Owen, Allison Waxberg, Matthew Wood
Proceedings of the 25th Annual ACM Interaction Design and Children Conference (IDC '26), Brighton, UK.