



Maynooth University Ollscoil Mhá Nuad

Department of Sociology Digital Twin & Smart City Lead (SFI ADAPT Maynooth & Dublin City Council / Smart Dublin) (21 Month Contract)

Background

ADAPT is a Science Foundation Ireland funded National Research Centre for AI Driven Digital Content Technology. It brings leading academics and researchers from 8 Irish universities and industry partners together to deliver excellent science, engage the public, develop novel solutions for business across all sectors and enhance Ireland's international reputation.

Smart Dublin is an initiative of the four Dublin Local Authorities to engage with smart technology providers, researchers and citizens to solve challenges and improve city life. It aims to position Dublin as a world leader in the development of new urban solutions, using open data, and with the city region as a test bed. Founded by the four Dublin Local Authorities, the goal is to future-proof the Dublin region by trialling and scaling innovative solutions to a wide range of local challenges. Established in 2019, Smart D8 is the fifth smart district operating under the Smart Dublin umbrella.

Digital Twin is an initiative of DCC's smart city programme to engage the Community, Enterprise and other stakeholders of Dublin in an innovative collaboration to explore Stakeholder and Community engagement with Digital Twin technology. It brings together technology providers, academia and citizens to explore expectations, potential applications, benefits, ethical challenges and outcomes of interacting with Digital Twin technology. The goal is to ensure that the adoption of Digital Twin technology meets the needs both of the City, and of the citizens who interact with it by trialling and scaling innovative solutions, not just in technology deployments, but also in processes of public engagement.

The ADAPT Centre @Maynooth is collaborating with Dublin City Council in a 2-year project to research and help to develop the Digital Twin ecosystem by providing access to ADAPT's research expertise in artificial Intelligence, education and public engagement, data and technology governance and technology ethics.

DCC has set several thematic areas where potential use cases will be developed over a two-year period. The DCC/ADAPT collaboration will focus on use cases and research in planning, climate and the environment, public education and consultation, tourism and culture.



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The Role

Digital Twin applies a people-centric approach, with the engagement and active participation of local stakeholders and community at its core. This project will focus **on stakeholder and community engagement to understand** the challenges and opportunities for Digital Twin technologies and to develop and evaluate interventions to progress the development of the ecosystem and the Digital Twin programme. The core research objective is to identify potential new models for engagement with digital twin technologies and to develop and trial proof of concept engagements to optimise the proposed models.

This programme of engaged research will generate new data around the interaction between Digital Twin and stakeholders and citizens, providing insights and new knowledge relating to the Digital Twin programme and to collaborative engagement with the community.

This project will fund a researcher who will embed with the Smart City team in Dublin City Council's offices. The researcher will have regular engagement with ADAPT research experts, led by Prof. Aphra Kerr from Maynooth University, who will provide feedback and guidance on the research programme, outputs and impact.

The successful candidate will coordinate the development of a vision for developing the Dublin Digital Twin as a world-class testbed that offers the opportunity for human-centric, ethical and sustainable R&D with the ability to test products, services and conduct public engagement locally.

The role is based in Dublin city and involves the post holder working outside of standard working hours to attend relevant community, industry or professional networking events. Some travel may be required from time to time.

Principal Duties

The successful candidate will support the research and programme goals of the ADAPT Centre and the Smart Dublin programme. Main duties will include but are not limited to the following:

Programme Management and Monitoring

- Coordinate the development of a vision for developing the use of Digital Twin technologies in the chosen thematic areas.
- Identify new use cases in the programme thematic areas.
- Ensure the overall efficient project management and delivery of the Digital Twin programme including; stakeholder engagement for needs analysis, project monitoring, and reporting.
- Establish metrics and key performance indicators to support ongoing monitoring and reports.
- Monitor best practice in data gathering, management and archiving
- Organise and schedule steering committee meetings and other partner update meetings including drafting meeting minutes and agendas.
- Engage with international smart city initiatives as required.

Stakeholder Engagement

- Engage with the Digital Twin stakeholders, enterprises, organisations, researchers in ADAPT and citizens to identify opportunities for research and innovation collaboration and funding.
- Cultivate and grow a strong ecosystem of relevant stakeholders and project partners including; researchers, industry partners, local communities, government and public services, including local authority staff.
- Identify, support and evaluate new projects.
- Ensure pilot applications or projects operate in line with programme vision and policies



Communication

- Develop a communications and social media plan for Digital Twin.
- Prepare, draft and disseminate project results and research findings.
- Develop and manage a community education & outreach programme of events to highlight Digital Twin projects and initiatives.
- Attend relevant meetings, learning events and conferences as required.
- Work with relevant groups in DCC to advance the wider smart city and innovation ecosystem.
- Other duties as assigned by PI in ADAPT and line manager in DCC Smart City.

The ideal candidate will have:

Mandatory Experience, Skills and Knowledge

- Candidates must have a recognised degree (level 8) in social science, computer science or other disciplines relevant to role. In addition, the candidate must have a postgraduate masters qualification (level 9) in a relevant field.
- Strong project management skills with at least 3 years' experience working in interdisciplinary teams.
- Experience managing internal and external partner and stakeholder relationships to enable project delivery (should include exposure to public bodies or agencies).
- Experience of managing reasonably complex projects through the full project lifecycle in a relevant area (e.g. smart cities, health, environment, culture/cultural heritage, planning).
- Facilitation or workshop delivery skills with experience of engaging different audiences (both technical and non-technical).
- An appreciation and understanding of technology research and innovation (including Responsible Research Innovation).
- Understanding of the process of academic research and knowledge of research ethics
- Fluent in spoken English and strong writing skills in English with experience of crafting communications for different purposes, including online communications.
- Excellent IT skills including experience with spreadsheets, word processing, presentation software, collaboration tools, databases and digital communication tools.

Desirable Experience, Skills and Knowledge

- Experience with digital twin technologies e.g. 3D modelling (Bim) and GIS (Google Earth, QGIS, ArcGIS)
- Experience conducting research esp. engaged or participatory research methods
- Experience of managing and/or coordinating Industry - Academic research projects from idea to conclusion
- Experience or strong interest in the Smart city ecosystem in Ireland and/or abroad (key organisations, statutory bodies and companies)
- Ability to identify, develop and deliver new funding opportunities with experience in grant/bid writing and a practical understanding of national, European funding schemes.

Smart Dublin

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The Smart City Unit works together with technology providers, academia and citizens to apply data-driven solutions to local challenges. The programme is also focused on the roll out of smart districts across the city. Academic and Enterprise Partners (Smart City programme) include: DCU and Maynooth Universities



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and associated SFI Research Centres, ADAPT, Connect and Insight. Microsoft, Bentley, Murphy Surveys, D3D, Autodesk, Graffiquo, Failte Ireland, Google, VUCity and others.

ADAPT

ADAPT is a Science Foundation Ireland funded National Research Centre for AI Driven Digital Content Technology. It brings leading academics, researchers and industry partners together to deliver excellent science, engage the public, develop novel solutions for business across all sectors and enhance Ireland's international reputation.

Hosted by Trinity College Dublin, ADAPT's partner institutions include Dublin City University, University College Dublin, Technological University Dublin, Maynooth University, Munster Technological University, Technological University of the Shannon: Midlands Midwest, and the National University of Ireland Galway.

ADAPT's research vision is to pioneer new forms of proactive, scalable, and integrated AI-driven Digital Media Technology that empower individuals and society to engage in digital experiences with control, inclusion, and accountability with the long-term goal of a balanced and inclusive digital society by 2030. ADAPT 2 was funded by Science Foundation Ireland in 2021 for a period of six years.

Maynooth University Social Sciences Institute (MUSSI)

The postdoc will have access to office space and supports at Maynooth University via the Maynooth University Social Sciences Institute (MUSSI). **MUSSI** consolidates and scales existing social scientific research expertise and research infrastructure at the university, including twelve Faculty of Social Sciences academic departments (Adult and Community Education; Anthropology; Applied Social Studies; Business; Design Innovation; Economics, Finance and Accounting; Froebel Department of Childhood and Primary Education, Education; Geography; International Development; Law; Psychology and Sociology).

MUSSI's current component research groups and centres include the National Institute for Regional and Spatial Analysis (NIRSA) and the National Centre for Geocomputation (NCG) and the Edward M Kennedy Institute for Conflict Intervention. The institute also consolidates, develops and supports a number of associated critical national data infrastructures including the All-Island Research Observatory (AIRO), the Irish Qualitative Data Archive (IQDA), ICLRD (Irish Centre for Local and Regional Development) and Digital Repository Ireland (DRI).

Department of Sociology

The **Department of Sociology** has 18 full time staff and offers undergraduate degrees in both sociology and politics as well as postgraduate degrees, based on its research strengths in political economy, work and inequality; technology, media and society; and political sociology, power and civil society. The department fosters a vibrant research and learning environment, is committed to public sociology and makes a significant contribution to public discourse in Ireland and internationally. The postdoc will be supported by a PI from this Department.

The University

Maynooth University) is a very distinctive university, a collegial institution focused on science and engineering, humanities, and social sciences, and equally committed to research, teaching and community engagement. Located in Ireland's only university town, its distinctive features and character owe much to its unique history and heritage. It provides a high-quality educational experience to over 13,500 students on a campus with 18th century roots and 21st century dynamism.



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The strategic trajectory and accomplishments of Maynooth University, in the twenty years since its establishment as an autonomous public university, are exceptional, and a source of great pride to the university community, staff, students and alumni. Maynooth University is now acknowledged to be one of the leading young universities in the world, ranked 43rd in the latest Times Higher Education (THE) 'Young Universities' list. Maynooth University's growing global reputation is based on the originality, quality, importance and impact of its research and scholarship, commitment to teaching and learning, the quality of academic programmes, and its leadership in widening participation in higher education. The sources of success are the dedication of its staff and the energy and engagement of its students.

Maynooth University is a place of lively contrasts – a modern institution, dynamic, rapidly-growing, research-led and engaged, yet grounded in historic academic strengths and scholarly traditions. With over 13,500 students Maynooth offers a range of programmes at undergraduate, postgraduate and doctoral level in the humanities, science and engineering and social sciences, including business, law and education. The University also offers a range of international programmes and partnerships.

Maynooth's unique collegial culture fosters an interdisciplinary approach to research, which its world-class academics bring to bear in tackling some of the most fundamental challenges facing society today. The University's research institutes and centres consolidate and deliver this impact as vibrant communities of learning, discovery and creation. Research at Maynooth also is very much central to its teaching and the University prides itself on placing equal value on its research and teaching missions.

Principles and Values

Maynooth University is committed to the following values:

- Scholarly rigour;
- Academic freedom;
- Integrity and ethical behaviour;
- Collegiality, transparency and trust;
- Equality, inclusiveness and social justice;
- Operational excellence, organisational flexibility and responsiveness;
- Dignity, respect and care for the individual.

Strategy 2018 - 2022

The University's Strategic Plan 2018-22 builds from a position of confidence. Maynooth University is a University with ambition, vision and values, a clear identity and sense of purpose, a history of achievement, and a future of considerable promise. The Strategy builds on the University's accomplishments and concentrates institutional energy and resources on further development of research and postgraduate education.

For more information please visit <http://www.maynoothuniversity.ie/about-us/university-strategic-plan>

Selection and Appointment

- Only shortlisted candidates will be invited to attend for interview;
- Candidates invited for interview will be required to make a brief presentation;
- Appointments will be approved by the President based on the report of the selection board;
- It is anticipated that interviews will be held in July 2022.
- The appointment is expected to be effective from 2nd August, or as soon as the candidate is available.



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Equality and Diversity

Maynooth University values the enrichment that comes from a diverse community and seeks to promote equality, prevent discrimination and protect the human rights of each individual. To learn more about our commitment to Equality and Diversity, please read the Maynooth University [Equality and Diversity Policy](#). Additionally, as an [Athena SWAN Bronze Award](#) Institute, we are committed to advancing gender equality across the University.

We aim to reflect the diversity of the community we serve and welcome applications from all individuals, in particular from people underrepresented in our workforce.

Terms and Conditions

The place of work is the campus of Maynooth University, Maynooth, Co. Kildare.

Data Protection Law

Maynooth University will process any personal data provided by you in connection with an application for this role in accordance with the General Data Protection Regulation and the Data Protection Acts 2018.

If your application is successful and you accept an offer of employment at Maynooth University, then your personal data will continue to be processed in accordance with Maynooth University's Staff Data Privacy Notice.

Both the privacy notices and further information relating to data protection, including Maynooth University's other data protection policies and processes, can be viewed at <https://www.maynoothuniversity.ie/data-protection>

Salary

Salary scale: €46,906 - €58,584 (6 points)

Appointments will be made in accordance with public sector pay provisions.

Application Procedure

Closing Date:

23:30hrs (local Irish time) on **Wednesday, 6th July 2022.**

Please note all applications must be made via our **Online Recruitment Portal** at the following link:

<https://www.maynoothuniversity.ie/human-resources/vacancies>

Applications must be submitted by the closing date and time specified above. Any applications which are still in progress at the closing time on the specified closing date will be cancelled automatically by the system.

Late applications will not be accepted.

Maynooth University is an equal opportunities employer

The position is subject to the Statutes of the University



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