

Research and Innovation Overview 2024

Department of Design Innovation

The Department of Design Innovation at Maynooth University continues to thrive, hosting six academic staff and 13 postgraduate students, 11 of whom commenced their studies in 2022-23. The department's research focuses on delivering solutions using design thinking methodologies, with a strong emphasis on collaboration and innovation. Eight students graduated during the reporting period, further demonstrating the department's commitment to fostering future leaders in design innovation.

Head of Department: Dr Iain Macdonald



Research Themes and Focus Areas

The department's research is characterised by its collaborative and solution-oriented approach, with key focus areas including:

- **Design Thinking and Innovation:** Research in this area focuses on applying design thinking methodologies to address complex challenges in various sectors, including education and justice.
- **Public Sector Reform:** Faculty members are involved in collaborative projects aimed at improving operational processes in public sector organisations, using design-led approaches.
- **Creative STEAM Education:** The department integrates Science, Technology, Engineering, Arts, and Mathematics (STEAM) to foster innovative thinking in education and public health.



Significant Research Outputs

In 2022-23, the department produced several notable research outputs and secured prestigious grants, showcasing its impact across various sectors:

Publications

- Dr Iain Macdonald co-authored the forthcoming book *Designing the BBC: A History of BBC Motion Graphics*, offering a multidisciplinary analysis of the BBC's motion graphics and their cultural significance.
- Dr Macdonald presented research findings at the CUMULUS Design Conference in Detroit, USA, exploring the role of STEAM in vaccination decision-making in the context of climate change.

Other key publications include:

- Finnegan-Kessie, T.; Vaugh, T.; White, A. and Baker, S. (2023), "Addressing the Barriers to Design-Thinking Driven Problem Solving in Higher Education", *International Journal of Management and Applied Research*, Vol. 10, No. 2, pp. 93-112. <https://doi.org/10.18646/2056.102.23-008>
- Valencia, A., Vaugh, T., Finnegan-Kessie, T (2023), "Designing a Class in Online Learning: Click Points versus Touch Points" in In: Lehtonen, M.J., Kauppinen, T., Sivula, L. (eds) *Design Education Across Disciplines*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-23152-0_7

Awards

- Dr Macdonald received a SFI Discover Grant of €49,963, in partnership with the Irish Cancer Society, for a study on HPV Vaccine communication using STEAM education, building on his earlier IRC Discover-funded project.



Collaborations and Partnerships

The department maintains strong collaborative partnerships across multiple sectors, with a focus on using design thinking to solve real-world challenges:

- **StudentSurvey.ie Programme:** At the request of the Technological Higher Education Association, Dr Threase Finnegan-Kessie conducted an evaluation of the national StudentSurvey.ie programme, presenting findings at the Quality and Qualifications Ireland (QQI) conference in October 2022.
- **Restorative Justice:** Dr Finnegan-Kessie facilitated workshops at the European Forum for Restorative Justice Annual Conference in Pamplona, Spain, where she helped practitioners adopt design methods for national action plans in restorative justice.



Research Impact and Societal Contributions

The department's research has far-reaching societal impact, particularly in public sector reform and public health education:

- **Public Sector Reform:** Dr Linzi Ryan collaborated on five policy-oriented projects with a national government organisation, using design thinking to improve internal and external processes. These projects led to tangible changes in the organisation's operations.
- **HPV Vaccine Education:** Dr Iain Macdonald's work on HPV Vaccine communication through creative STEAM workshops involved 50 Transition Year students from post-primary schools in Offaly and Kildare, contributing to public health education.



Future Directions

Looking ahead, the department plans to expand its work in design thinking and creative STEAM education, with future projects exploring the role of design in addressing societal challenges such as climate change and public health. The department will also continue its partnerships with public sector organisations and NGOs to further its impact on policy and practice.

The Department of Design Innovation at Maynooth University remains a leader in research-driven innovation, producing impactful work that addresses complex societal challenges. Through its collaborative projects, international partnerships, and commitment to public engagement, the department is well-positioned to continue shaping the future of design and innovation.