

Governing Authority Election 2025: Candidate Profile – Professorial Cohort



Professor Michael Madden
School of Computer Science

Candidate Biographical Details / Sonraí Beathaisnéise an Iarrthóra

Michael Madden is the Professor of School of Computer Science. He has been part of University of Galway's community for much of his life, having been a student, Part-Time Teaching Assistant, Lecturer, Senior Lecturer, Professor and Head of School here.

He did his degree in Engineering in University of Galway 1987-1991, followed by a PhD in Machine Learning here, during which he also studied in UC Berkeley. He worked for 5 years in industry as a software engineer and R&D Manager, before being recruited as a lecturer in 2000. He was promoted to Senior Lecturer in 2007 and to Personal Professor in 2017. In 2017 also, he was appointed Established Professor, to set up and lead the School of Computer Science.

Michael has worked throughout his career in Artificial Intelligence research. He leads the Machine Learning Research Group that he set up in 2001. His research has led to over 120 publications, 4 patents, 12 PhDs, 12 postdocs, and a university spin-out company. He is a member of the Insight Centre and two SFI CRTs, CRT-AI and D-REAL. He has spent sabbaticals as a Visiting Research Scientist in University of Helsinki, University of California Irvine, and UC Berkeley.

Candidate Statement / Ráiteas an Iarrthóra

I care deeply about University of Galway and want it to be among the world's best global universities. I also want it to retain the essential characteristics that make the University and its hinterland a great place to be, and a university that puts students first. I have supported our rise in international rankings and greater kindness towards students.

I spent 5 years as Head of School of CS, and previously was Head of the IT Discipline for 6 years. I worked with my colleagues to develop the discipline into a School. I led the launch of several new taught programmes aligned to our research strengths, and increased PhD numbers, allowing us expand the school by 50% since 2019.



To enable this, I introduced a transparent workload model backed by comprehensive communication. Meanwhile, I helped to grow our research profile through championing individual research and encouraging increased collaborations with the Data Science Institute. In this, my vision was to develop a Galway AI ecosystem centred on the University, linking multinationals, indigenous companies, and state agencies. I have also led community activities such as establishing CoderDojo Athenry and Galway.

The Professoriate, Heads, and all researchers and innovators would benefit from greater supports to enable us all to implement the University's goals and have impact. Examples of issues I'll tackle are:

- Ensuring Heads have greater central supports, to reduce their overwork and stress, making the role more appealing
- Seeking ways to minimise bureaucracy and remove inefficiencies
- Transparent University-wide resource allocation models
- Improving research supports
- Removing short time-limits on research overheads accounts.

Principles informing my leadership approach include: (1) leadership is about service and engagement; (2) vision requires action. If elected, I will bring my vision, energy, and commitment to service to my membership of Údarás na hOllscoile.

Tá an-chion agam ar Ollscoil na Gaillimhe agus ba mhaith liom go mbeadh sí mar ollscoil idirnáisiúnta, i measc na n-oillscoileanna is fearr sa domhan. Ba mhaith liom go gcoinneofaí na tréithe atá riachtanach le go mbeadh an ollscoil agus na háiteanna ina timpeall mar áit dheas le bheith ag obair ann agus ollscoil a thugann tús áite do mhic léinn. Thacaigh mé leis an ardú a tháinig ar an ollscoil sa rangú idirnáisiúnta i measc ollscoileanna an domhain agus thacaigh mé le níos mó cineáltais i measc na mac leinn.

Chaith mé 5 bliana mar Cheann Scoile Ríomheolaíochta, agus roimhe sin bhí mé i mo Cheannasaí ar an nDisciplín TF ar feadh 6 bliana. D'oibrigh mé le mo chomhghleacaithe chun an disciplín a fhorbairt ina Scoil. Threoraigh mé seoladh roinnt clár nua múinte a bhí ailínithe lenár láidreachtaí taighde, agus mhéadaigh mé líon na gcéimithe PhD, rud a cheadaigh dúinn an scoil a leathnú faoi 50% ó 2019 i leith.

Chun é seo a bhaint amach, thug mé isteach samhail oibre ina raibh ualach oibre soiléir agus cumarsáid chuimsitheach. Idir an dá linn, chabhraigh mé ár bpróifíl taighde a fhás trí thacú le taighde aonarach agus comhoibriú a dhéanamh níos minicí le hInstitiúid na hEolaíochta Sonraí (Data Science Institute). Leis seo, is í an fhís a bhí agam ná pobal Intleacht Shaorga(AI) a fhorbairt i nGaillimh ina mbeadh an ollscoil ina lár agus a cheanglaíonn comhlachtaí ilnáisiúnta, comhlachtaí dúchasacha agus gníomhaireachtaí stáit. Bhí mé i gceannais ar ghníomhaíochtaí pobail mar shampla bhunaigh mé CoderDojo Bhaile Átha an Rí agus CoderDojo na Gaillimhe.

Bhainfeadh na hOllaimh, na daoine atá i ról mar Cheann Roinne, na taighdeoirí agus na nuálaithe tairbhe as níos mó tacaíochta le cabhrú linn ar fad aidhmeanna na hollscoile a chur i bhfeidhm agus tionchar a bheith againn ar chúrsaí. Seo samplaí de chuid de na saincheisteanna a bhfuil mé le dul i ngleic leo:



- Cinntiú go bhfuil níos mó tacaíochta ag daoine atá sa ról mar Cheann Roinne chun ualach oibre agus brú a laghdú, le go mbeidh an ról níos tarraingtí
- Bealaí a fháil le maorlathas a laghdú agus fáil réidh le neamhéifeachtúlachtaí
- Samhail leithdháilte acmhainní a bheith trédhearcach ar fud na hollscoile
- Feabhas a chur ar thacaíochtaí taighde
- Deireadh a chur le teorainneacha ama gearra i leith forchostais taighde

I measc na bprionsabal a chuireann cruth ar mo chur chuige ceannaireachta, tá: (1) Baineann ceannaireacht le seirbhís agus rannpháirtíocht; (2) Tá gníomh riachtanach le fíis a bhaint amach. Má thoghfár mé mar bhall d'Údaras na hOllscoile, tugaim liom mo fhíis, mo fhuinneamh agus tiomantas do sheirbhís.

Candidate Outline of Relevant Competencies / Cur síos an Iarrthóra ar Inniúlachtaí Ábhartha

"Governance:

Experience of governance through leading a university spin-out company: securing funding, filing patents, intellectual property agreements, and developing company strategy.

Strategy:

Developed the vision and action plan for the School of Computer Science, in line with the University's strategic priorities.

Executive/Management, Organisational, Financial Experience:

Extensive experience as a company R&D Manager, an academic leading large research projects, and Head of Discipline and School.

Sectoral Experience:

Primarily in university sector, with industry experience.

Teaching and learning:

- Has deep experience from 24 years of lecturing. Developed many modules from scratch.
- Has experience from 2005 to 2024 of online teaching. Extensive experience of large-group and small-group teaching, at all levels.
- Led the development of our successful Masters' programmes in Data Analytics and AI, on-campus and online, and PgDip in AI for Professionals, with external funding for online programmes.
- Programme Director for GY350 for 6 years, during which he streamlined it and led its accreditation by Engineers Ireland.
- Established University of Galway's Computer Drop-In Support Centre in 2010, with HEA funding of €1m+ to date, supporting students' self-directed learning in computing topics at all years/levels.
- Established CoderDojo Athenry (a free coding club for kids) in 2012 and mentored there since.
- Extensive experience of public communications and media.



Research and Innovation:

Michael's overall research vision is to advance fundamental research in machine learning, motivated by developing solutions to high-potential scientific and medical applications.

To achieve this, has secured over €6m of funding and coordinated multiple EU projects, including H2020-ROCSAFE (€5m over 3.5 years). This has enabled research outputs including 20 PhDs/MScs and 130+ publications, 4 patents, and research-led teaching.

Interdisciplinary collaboration is a defining characteristic, with collaborators in academia and industry in Ireland, EU and internationally. Member of Insight and two SFI centres for research training."