



# Directory of Experts

















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# **About ADAPT**

ADAPT is the world-leading SFI research centre for Digital Media Technology and AI 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 Content Technology that empower individuals and society to engage in digital experiences with control, inclusion, and accountability with the long term goal of a balanced digital society by 2030.

ADAPT is pioneering new techniques and technologies in Personalisation, Human-Computer Interaction, Analytics and Knowledge Extraction, Intelligent Machine Translation & Enhanced Human Translation, Dynamic Personalised Digital Media Discovery, Recomposition, and Interaction, Multimodal Engagement, and is setting the standards for the management of data governance, privacy, and ethics in content processing. ADAPT's research experts, collaborate across Industry, multidisciplinary academic communities and wider society to address the human-centric challenges and opportunities presented by advances in digital content technology and AI. ADAPT is funded by Science Foundation Ireland.

# **Partner Institutions**

ADAPT's internationally recognised and awardwinning research is a collaborative effort across the following institutions:

Trinity College Dublin, The University of Dublin (TCD)

**Dublin City University (DCU)** 

Technological University Dublin (TUD)

University College Dublin (UCD)

Maynooth University

TUS (Technological University of the Shannon: Midlands Midwest)

MTU (Munster Technological University)

University of Galway

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Coláiste na Tríonóide, Baile Átha Cliath
Ollscoil Átha Cliath



Ollscoil Chathair Bhaile Átha Cliath Dublin City University



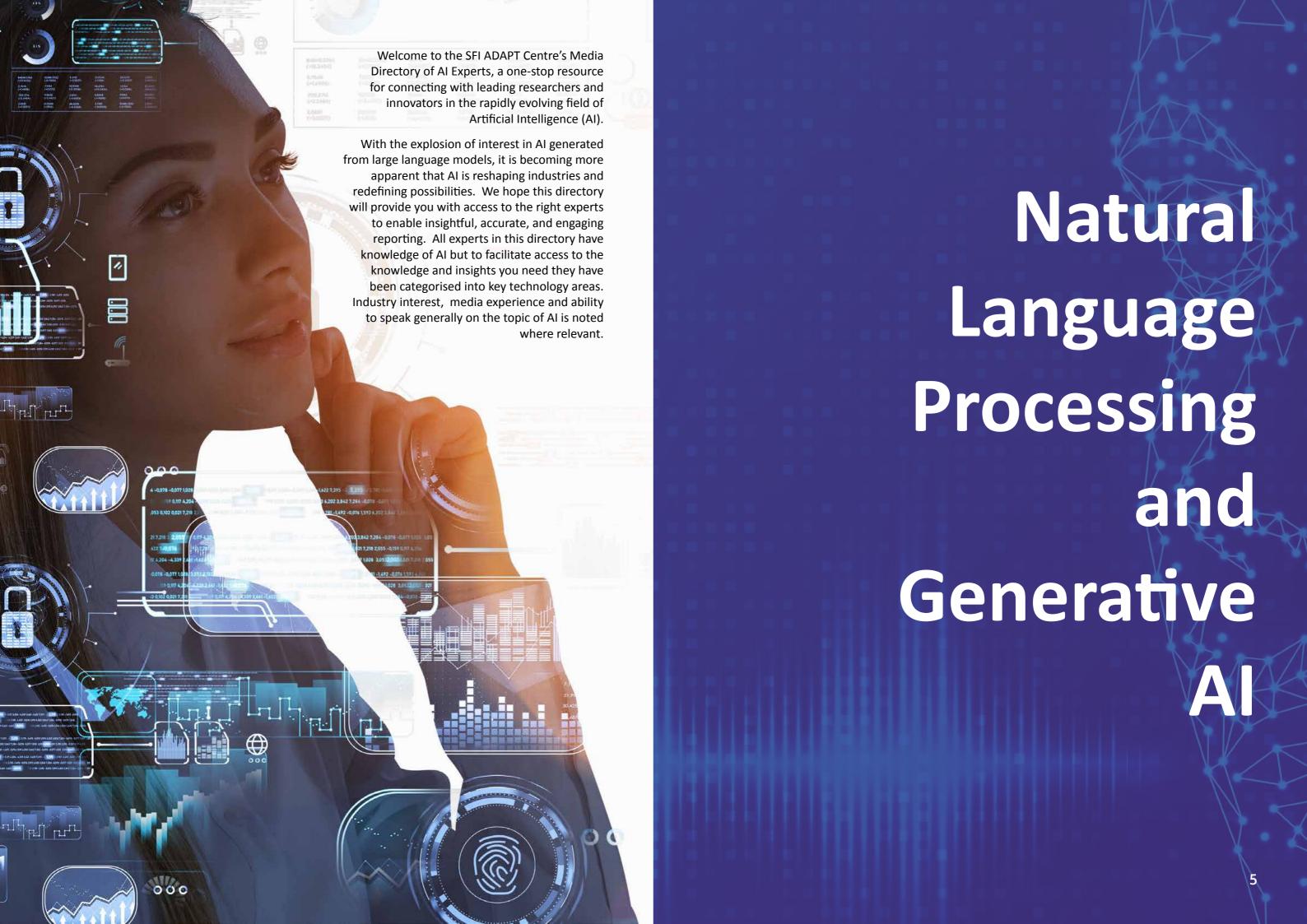




University College Dublin Ireland's Global University









- Artificial intelligence machine/ deep learning and natural language processing
- AI for Health

Media Experience Examples:

**ADAPT Podcast** 

ADAPT Podcast



Hamilton Institute Professor of Computer Science at Maynooth University. Prof Kelleher has published over 160 peer-reviewed papers in the fields of AI and ML. His core research expertise is in the areas of machine/deep learning and natural language processing. Prof. Kelleher has led the Al research in a number of European funded projects on Al for Health. Prof. Kelleher has also led a large number of industry projects on topics such as anomaly detection in cloud services, analysis of multilingual social media for global disease monitoring, natural language to source code generation, customer propensity modeling, price modeling and prediction, and developing AI systems to support regulatory compliance.







Finance and banking

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#### Research Area:

- Artificial intelligence machine/ deep learning and natural language processing
- AI for Health

Has Media Experience

## **Professor Anya Belz**

**Dublin City University** 

Professor of Computer Science at DCU and expert in Language Generation and System Evaluation, Prof Belz's research is in the intersection of machine learning and natural language processing (NLP) and her 16 externally funded research projects and publications span automatic language generation, text analysis, evaluation, reproducibility and image description.



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Education







and public

Entertainment and media



#### Research Area:

- MedTech
- Machine learning
- Data analytics
- Multimodal interaction
- Natural language processing
- Predictive analytics
- · Human Robot Interaction, Dialogue, Conversation, Reinforcement Learning

Media Experience Examples:

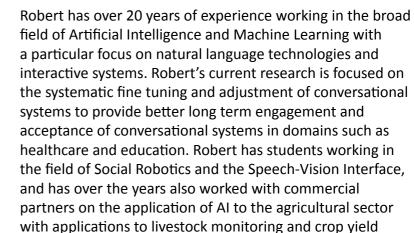
Al Ireland Podcast



- FinTech

- Emotion

RTE Radio



Robert Ross is a Senior Lecturer in the School of Computer

Science in TU Dublin, where he teaches modules on Deep

Learning and Natural Language Technologies, and leads the



analysis.



Healthcare

**Dr Robert Ross** 

Cognitive Systems research group.

TU Dublin





Finance banking

Education

**Dr Haithem Afli** Munster Technological University

Faculty member of Munster Technological University with expertise in Machine Learning and Deep Learning Research. Dr Afli is involved in several national, European (H2020) and International projects focussed respectively on the application of ML and NLP in Digital Health, 5G technology, AgriTech and security.







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Media Experience Examples:

• Natural Language Processing

Research Area:

• Data Analytics • Deep Learning Languages

Linguistics

• Artificial Intelligence

• Behavioural Analysis

Machine Learning

Machine Translation

RDI Hub Summer School

# Data governance, regulatory compliance and digital ethics



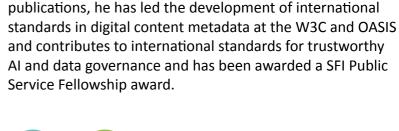
#### Research Area:

- Data Governance and Ethics
- Expert in open semantic models to manage the Data Protection and Data Ethics issues associated with digital content processing

Media Experience Examples:



- Standards





and public

**Professor Dave Lewis** 

Head of Artificial Intelligence at TCD, his research focuses on the use of open semantic models to manage the Data Protection and Data Ethics issues associated with digital

content processing. With more than 200 peer-reviewed

Trinity College Dublin



#### Research Area:

- Ethics and values in AI governance
- · AI related public policy, digital games and gaming, algorithmic literacy and social expectations

Media Experience Examples:

ADAPT Maynooth University

Silicone Republic

#### **Professor Aphra Kerr**

Maynooth University

Professor at the Department of Sociology at Maynooth University, her research focuses on the ethics and values underpinning digital technology design and governance, Al-related public policy and social expectations and public engagement in AI. Ongoing research projects examine emerging European AI policy, the impacts of AI on the European media and communications industries, AI and datafication within the digital games and gaming industries and algorithmic literacy. She is supervising projects which examine the impact of automation and AI on cities, banking, policing, the taxi industry, and manufacturing. With more than twenty years researching digital content and technology, Prof Kerr is the author of over 100 publications and two monographs on the global digital games industry. Prof Kerr was elected to Academia Europea in 2021.















- Digital transformation
- Data governance
- Enterprise Architecture and Service Innovation
- Smart Cities and IoT based Smart Environments

Media Experience Examples:

Al Ireland Podcast

Maynooth University Video

#### **Professor Markus Helfert**

Maynooth University

Markus is Director of EMPOWER, Data Governance, a €10 million academic and industry research programme designed to future proof EU data flows and drive innovations in data protection internationally. He is also Professor in Digital Service Innovation at Maynooth University, Innovation Value Institute and Director of the Business Informatics Group at Maynooth University.



banking



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Smart Citie and digital



#### Research Area:

- Automated Data Governance and Al Governance
- Data integration and Quality
- Machine Learning
- Privacy and Ethics
- Data security

#### **Assistant Professor Malika Bendechache**

University of Galway

Based at the University of Galway with a focus on the development and validation of new analytics, metrics, and tools to support automated Data Governance and Al Governance.





Education

Government and public policy



#### Research Area:

- Data governance
- Cybersecurity risk
- Data protection
- FAIR data
- Data quality
- Knowledge graphs
- Al governance.

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#### **Assistant Professor Rob Brennan**

University College Dublin

Rob's main research interests are data governance, cybersecurity risk, data protection, data value, data quality, knowledge graphs, and AI governance. Rob is an Assistant Professor in the School of Computer Science, University College Dublin and a Principal Investigator of the EMPOWER data governance spoke. He is the founding Chair of the DCU MA in Data Protection and Privacy: Law & Computing. As a Funded investigator in ADAPT, Rob leads the Value and Risk challenge in the Transparent Digital Governance research strand.





Healthcare





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- Behavioural Analysis
- Data Analytics
- Data Representation
- Deep Learning
- Digital Humanities
- Human Computer Interaction
- Knowledge & Data Engineering
- Linked Data / Semantic Web / **Knowledge Graphs**
- Machine Learning
- Multimodal Interaction

Media Experience Examples:

ADAPT Radio



- Personalisation

**ADAPT Radio** 

# Trinity College Dublin

- Artificial Intelligence

- Emotion

- Speech

## **Professor Vincent Wade**

Professor Vincent Wade is co-founder of the ADAPT Centre and holds the Professorial Chair of Computer Science (Est. 1990) in School of Computer Science and Statistics, Trinity College Dublin as well as a Personal Chair in Artificial Intelligence. He is also co-director of the DREAL Centre for Research Training. His research focuses on intelligent systems, AI and Personalisation. He has authored over 350 scientific papers in leading peer-reviewed journals and international conferences and is also the founder of several successful Trinity campus companies, including EmpowerTheUser, currently valued at \$50 million.



sustainability













#### Research Area:

- Personalisation
- Digital Humanities
- Empowering users in understanding and interacting with complex information and media

#### Media Experience Examples:

FOR TECH'S SAKE

ADAPT YouTube

#### **Professor Owen Conlan**

Trinity College Dublin

Owen's research focuses on empowering users in understanding and interacting with complex information and media. He has published 180+ scientific peer-reviewed papers and international journal articles receiving over 3000 citations. He is Head of the Artificial Intelligence discipline in the SCSS at TCD and co-director of the Research Centre for Digital Humanities.



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- Artificial Intelligence
- Human Computer Interaction
- Dialogue
- Conversational User Interfaces
- Psycholinguistics
- Multimodal Interaction
- Speech
- Statistics

Media Experience Examples:

ADAPT Radio

ADAPT Radio

#### **Associate Professor Ben Cowan**

University College Dublin

Associate Professor at UCD's School of Information & Communication Studies, his research lies at the juncture between psychology, human-computer interaction and conversational AI in investigating how design impacts user perceptions and dialogue behaviour in social, collaborative and communicative technology interactions. His recent research has focused specifically on how theory and quantitative methods from psychological science can be applied to understand and design more user centered conversational AI technologies. He is co-founder of the ACM Conversational User Interfaces (ACM CUI) conference, the leading international research conference on user centered conversational AI technologies, and is an ACM Distinguished Speaker.



















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and public banking sustainability







#### Research Area:

- Human Computer Interaction
- Behavioural Science and Information Science with an interest in bias, credibility, mis/ disinformation, news, and information security
- Personalisation.

Media Experience Examples:

ADAPT YouTube

HCI @ UCD Podcast

#### **Assistant Professor Brendan Spillane**

**University College Dublin** 

Expert in the impact of the visual presentation of news on the perception of bias in news articles. He has developed tools to detect and warn users of disinformation. He is a PI on the EU VIGILANT project that will equip European Police Authorities with advanced technologies from academia to detect and analyse disinformation campaigns that lead to criminal activities.



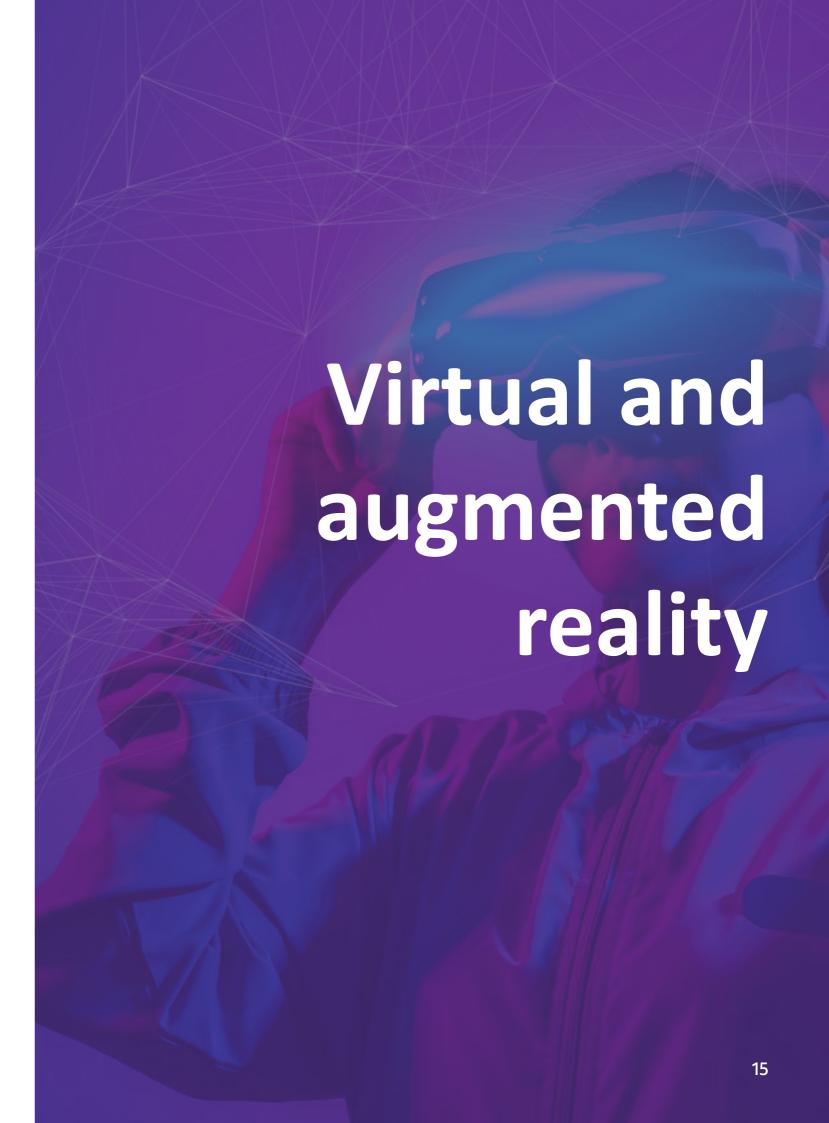






and public

Government Entertainment





- Immersive (AR & VR)
- Human-centric Al
- Multisensory multimedia communication and applications
- Multimedia signal processing
- Quality of experience
- Wearable sensor systems.

ADAPT YouTube

#### **Lecturer Niall Murray**

Technological University of the Shannon: Midlands Midwest

Based at Technological University of the Shannon: Midlands Midwest, his research interests include immersive (AR & VR), human-centric AI, multisensory multimedia communication and applications, multimedia signal processing, quality of experience, and wearable sensor systems.

**Associate Professor Rachel McDonnell** 

Her research interests include Computer Graphics, Character Animation, and Perceptually-Adaptive Graphics. The aim is to make the appearance and motion of these types of virtual avatars more realistic, through perceptual experiments and developing new algorithms based on real human movement.







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#### Media Experience Examples:

ADAPT YouTube



#### Research Area:

- · Applying machine learning for applications in speech, audio and video signal processing
- Al driven quality prediction
- Leveraging ChatGPT for digital assistants
- Speech synthesis
- AR/VR/XR for hearing impaired listeners.

Media Experience Example:

Silicone Republic



**Assistant Professor Andrew Hines** 

Andrew's research interests are in applying machine learning

for multimedia applications, particularly in speech, audio,

specialises in Quality of Experience for Listening and Media

Technologies. Active research projects are investigating the

use of computer models in a variety of domains including tele-meetings, virtual reality, audio, video, health and

security. Dr Hines projects range from models for stroke

speech quality models for Google. He has contributed to

the Irish Law Gazette on ChatGPT, RTE Primetime on using

AI in video surveillance and RTE Brainstorm about current

research into why people use subtitles while streaming

movies. He is a member of the Royal Irish Academy

Engineering and Computer Sciences Committee.

rehabilitation in a European Consortium to music and

and video signal processing. His research group, QxLab,

University College Dublin

Research Area:

- Animation and Graphics
- Emotion
- Human Computer Interaction
- Machine Learning
- VR and AR.

#### Media Experience Examples:

HCI @ UCD Podcast

ADAPT Radio

Trinity College Dublin

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- Audio-visual Speech Recognition
- Speech Synthesis Evaluation

#### Media Experience Examples:

Tech Central

ADAPT Radio



- Multimodal Interaction
- Human-Computer Interaction
- · Speech Quality
- Deep Learning
- Al

2023.





**Professor Naomi Harte** 

Trinity College Dublin



Professor in Speech Technology at the School of Engineering

in TCD, Naomi's specialist area is Human Speech

Communication, where her industrial background has enabled her to bring real-world relevance to her research. Prof Harte originally worked in high-tech start-ups in the field of Digital Signal Processing Systems Development, including her own company. Her research focuses on

leveraging our understanding of human speech-based

interaction in Al-driven speech technology. She is the

Chair of the world's largest speech technology conference,

INTERSPEECH, taking place in the CCD in Dublin in August



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#### Research Area:

- Neural Data Analysis
- Speech Processing
- Music Processing
- Perception
- Neurophysiology
- Linguistics
- Human Computer Interaction
- Machine Learning
- Natural Language Processing

#### Media Experience Examples:

Research Works Podcast

ean News

#### **Assistant Professor Giovanni Di Liberto**

Trinity College Dublin

Giovanni's scientific interests centre on understanding the neural mechanisms underlying speech communication. In his work, he develops data analysis methods for investigating how the human brain transforms sounds into abstract meaning. He then applied his research to study speech and language processing across the lifespan (e.g., infants, ageing) and deficits impacting speech and language functions, such as hearing impairment and dyslexia. He has published 35+ scientific peer-reviewed papers and international journal articles receiving over 2500 citations.







Government Entertainmen and public



- Animation and graphics
- Data visualisation
- Deep learning; AR and VR.

### **Professor Rozenn Dahyot**

Maynooth University

Her research interest are in pattern analysis and machine intelligence with signal processing applications such as remote sensing, computer vision, and computer graphics.







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Media Experience Examples:

Tech Central

ADAPT YouTube



#### Research Area:

- Machine learning and Al pipelines for clinical, biological, and imaging data
- Predictive analytics
- Al

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#### **Dr Aidan Meade**

**TU Dublin** 

His research concentrates on the development of data treatment, machine learning and AI pipelines for clinical, biological, and imaging data, with a deep focus on novel hyperspectral imaging (HSI) data derived from human tissues. The motivation of his activity is to develop imaging solutions for precision oncology.



Healthcare





- Artificial Intelligence
- Languages
- Linguistics
- Machine Learning
- Machine Translation
- Natural Language Processing

#### Media Experience Examples:

KantanAl

EU Science Media Hub



## **Deputy Director/Professor Andy Way**

**Dublin City University** 

He has published over 400 peer-reviewed papers and has a 30 year career spanning industry and academia. In 2019 he received the extremely prestigious Award of Honour from the International Association for Machine Translation for his services to the community and was ranked first globally among researchers who have published on MT in Scopusindexed publications 2000-2018









and public



# **Teresa Clifford**

**Dublin City University** 

After coming into the ADAPT Centre in DCU as an annotator, she is now working as a research assistant. She is working on research and outreach for the eSTÓR, a nationally funded project that enables people working in public administration across Ireland to collect and share language data via a dedicated online platform.

#### Research Area:

- Languages
- Linguistics
- Irish Language
- Language Data



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# Information Retrieval



• Information retrieval and search technologies

#### Media Experience Examples:

FOR TECH'S SAKE

ADAPT YouTube

#### **Professor Gareth Jones Dublin City University**

His research encompasses an extensive portfolio of activities in information retrieval, ranging from fundamental technologies to diverse areas of application. Prof Jones has published extensively, with more than 400 papers covering many topics in multimedia and multilingual information retrieval. His work encompasses a broad range of areas including speech and multimedia search, multilingual search, personalisation in search, search for personal information archives, legal and patent search, and more generally information retrieval models and evaluation.









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#### Research Area:

- Data analytics
- Digital Twins
- Lifelogging Wearable sensors
- Information Retrieval

#### Media Experience Examples:

eHealth 360 Summit

elder

#### **Professor Cathal Gurrin**

**Dublin City University** 

Professor at the School of Computing at DCU, and head for ADAPT in DCU. He has developed WWW search engines, multimedia content mining tools and spent over a decade investigating digital twins and the Quantified Self. He has published over 350 research papers on these topics and his research has been covered in many international media venues such as Discovery Channel, BBC Click and the Economist magazine. He is within the top 5 researchers in the world on the topics of Quantified Self and lifelogging.









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#### Research Area:

- Artificial Intelligence
- Business and Finance
- Data Analytics
- FinTech
- Machine Learning
- Predictive Analytics

#### Media Experience Examples:

ADAPT Radio

UCD Business Impact Podcast



#### **Professor Cal Muckley**

University College Dublin

Cal is Professor of Operational Risk in Banking and Finance at the UCD College of Business and a Fellow at the UCD Geary Institute. His research is in areas of financial misconduct, mitigating financial fraud, ethical algorithmic lending and the information content of corporate dividends.





#### Research Area:

• Health informatics

Media Experience Examples:

ImmunoTea Podcast

RTE

#### **Professor Mark Little**

Trinity College Dublin

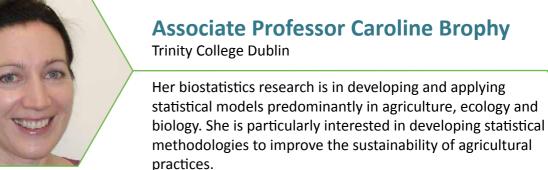
Mark is Fottrell Professor of Nephrology, School of Medicine, Trinity Translational Medicine Institute, Fellow of TCD and of the Royal College of Physicians (London), and a Consultant Nephrologist in Tallaght and Beaumont Hospitals. Prof Little's research interests include novel model systems for investigating the pathogenesis of ANCA vasculitis, biomarker development and application of data science techniques in the study of autoimmunity. In 2015, he established the Chronic Disease Informatics Group, going on to establish several EU consortia focused on data linkage and predictive analytics in the medical sphere. He leads the ADAPT Health Working Group







- Data analytics
- Data visualisation
- Predictive analytics
- Statistics





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Media Experience Examples:

Trinity News



#### Research Area:

- Environment
- Sustainability
- Al
- Citizen Science

#### Media Experience Examples:

ADAPT Radio

#### **Assistant Professor Marcus Collier**

**Dublin City University** 

Prof Marcus Collier is Assistant Professor in Urban Naturebased Innovation at TCD. Fascinated by the human-nature interface and specialising in social-ecological systems thinking. In recent years he has published extensively on contested issues such as novel ecosystems and nature-based solutions.



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