Postdoctoral Fellowships (PF) 2022
Opening: 13th April 2022
Deadline: 14th September 2022

The ADAPT Centre is excited to invite applications from experienced researchers in the areas of computer science, engineering, e-learning, animation/games, speech and music, linguistics and low-resourced languages, mathematics, digital marketing and web analytics, law, ethics, social science, and digital health to apply for competitive and career enhancing 2-year European Postdoctoral Fellowships (PF), a Horizon Europe Marie Skłodowska-Curie Action.

As part of this prestigious Postdoctoral Fellowship you will
1. Have full autonomy to develop a novel proposal aligned with your research career guided by world leading academic supervisor in your field and an expert research development team
2. Join the Marie Curie Alumni Association, a major platform for researchers to contribute to shaping science policy in Europe, providing career development opportunities and supporting the wider research community on topics affecting research and researchers' lives.
3. Expand the reach of your research through the MSCA programme which is proven to increase citation publication rate in comparison to other schemes
4. Be provided with a generous Mobility and Living Allowance as well as a Family Allowance (where applicable) to enable your relocation to Ireland, the European hub of digital innovation.

To submit an expression of interest please complete the following form:
https://forms.gle/oMNLpVmk5sjuAjbX6

To learn more about the scheme, please visit:
https://ec.europa.eu/research/mariecurieactions/actions/postdoctoral-fellowships

WHY ADAPT?

- **Contribute** to the ADAPT research agenda that pioneers and combines research in AI driven technologies: Natural Language Processing, Video/Text/Image/Speech processing, digital engagement & HCI, semantic modeling, personalisation, privacy & data governance.
- **Work** with our interdisciplinary team of leading experts from the complementary fields of, Social Sciences, Communications, Commerce/Fintech, Ethics, Law, Health, Environment and Sustainability.
- **Leverage** our success. ADAPT’s researchers have signed 43 collaborative research projects, 52 licence agreements and oversee 16 active commercialisation funds and 52 commercialisation awards. ADAPT has won 40 competitive EU research projects and obtained €41 million in non-exchequer non-commercial funding. Additionally, six spinout companies have been formed. ADAPT’s researchers have produced over 1,500 journal and conference publications and nearly 100 PhD students have been trained.
ABOUT THE ADAPT CENTRE

The ADAPT Centre, funded by Science Foundation Ireland focuses on developing next generation digital technologies that transform how people communicate by helping to *analyse*, *personalise* and *deliver* digital data more effectively for businesses and individuals. ADAPT researchers are based in eight leading universities: Trinity College Dublin, Dublin City University, University College Dublin, Technological University Dublin, Maynooth University, Munster Technological University, Technological University of the Shannon: Midlands Midwest, and 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 digital society by 2030. ADAPT is pioneering new Human Centric AI techniques and technologies including personalisation, natural language processing, data analytics, intelligent machine translation, human-computer interaction, as well as setting the standards for data governance, privacy, and ethics for digital content.

APPLICATION PROCESS AND SUPPORT OFFERED

Candidates interested in applying for a PF with the ADAPT Centre and any of its affiliated host institutes must fill out and submit the “Expression of Interest” form available on this link: [https://forms.gle/oMNLpVmk5sjuAjbX6](https://forms.gle/oMNLpVmk5sjuAjbX6)

Candidates will be selected based on eligibility, experience, alignment with ADAPT priorities and proposed supervisor’s research interest. The final decision to support a candidate will ultimately be taken by the supervisor and a contract will only be issued if and only if the submitted proposal is selected for funding by the European Commission.

The selected candidates will receive support from ADAPT’s Research Development Team in writing their applications and join a number of working sessions to develop a strong and competitive proposal.

Stages of the EoI process and indicative timeline:

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|-------------------------------------------------|-----------------|
| Call for EoIs opening                           | 04th of April 2022 |
Submission of EoIs to ADAPT | 13th of May 2022
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Review of EoIs | Once an EoI is received, a review will be conducted immediately. Should there be an alignment with ADAPT and Supervisor, then a call will be organized with the Supervisor.
Communication of results of internal selection | 1 week after meeting with supervisor
Working sessions and support from ADAPT in proposal development | 13th of May 2022 until 15th of August 2022
Submission of full draft (with final budget) to ADAPT | 19th of August 2022
MSCA PF submission deadline | 14th of September 2022 @ 5pm Brussels time.

**FUNDING**

Each candidate will apply to the scheme with an ADAPT Centre Supervisor who belongs to one of the 8 institutions affiliated to the Centre, this will be the candidate’s host institution.

Should the proposal be successful, the candidate will receive a contract of employment for the period of 2 years, fully funded by the European Commission.

The beneficiary receiving EU funding (The ADAPT Centre through its host Institutions) recruits the researcher (Candidate) for the total period of the fellowship (24 months’ duration). This recruitment will only happen if the proposal is selected for funding by the European Commission.

The EU provides the following support:

- a living allowance
- a mobility allowance
- if applicable, family, long-term leave and special needs allowances

In addition, funding is provided for
- research, training and networking activities
- management and indirect costs

ELIGIBILITY

Candidates must:

1. Have successfully defended their thesis or have been formally awarded a PhD degree at the time of the deadline.

2. Have a **maximum** of eight years’ experience in research, from the date of the award of their PhD degree. Note that years of experience outside research and career breaks will not count towards the above maximum, nor will years of experience in research in countries outside of the EU, for nationals or long-term residents of EU Member States or Horizon Europe Associated Countries who wish to reintegrate to Europe.

3. Should comply with mobility rules: they must not have resided or carried out their main activity (work, studies, etc.) in the country of the beneficiary (Ireland) for more than 12 months in the 36 months (3 years) immediately before the call deadline. Special mobility rules apply for career break and researchers’ at risk.
MSCA Postdoctoral Fellowship 2022
ADAPT Supervisors

Dr. Aisling Keenan Gaylard is a lecturer and researcher with Technology University of the Shannon (TUS): Midlands Midwest in Ireland. Aisling is the programme co-ordinator of the MSc in Digital Marketing at TUS: Midlands Midwest. Aisling currently supervises two PhD students, she contributes annually to the Academy of Marketing, the British Academy of Management and the Irish Academy of Management Conferences. Before joining academia, Aisling previously worked as a web developer and SEO consultant. Aisling research interests lies in technology adoption and usage, employee user behaviour, social media usage, and data analysis using structural equation model (SEM). Aisling obtained both her PhD and Masters in Business in eCommerce from the National University of Ireland, Galway.

For this call, Dr. Keenan is looking for projects in the areas of responsive web programming, web analytics, and digital marketing.
Dr. Annalina Caputo is an Assistant Professor and Assistant Head of Research Management in the School of Computing, Dublin City University and she is the Academic Lead for MSc in Artificial Intelligence for ICT Skillnet. Dr. Caputo is SFI Funded Investigator in the ADAPT and I-Form centres where she works on topics related to personalisation, information extraction and retrieval, recommender systems and data analytics. She is also the Challenge Leader for the Proactive Experiences and Agency of the Digitally Enhancement Engagement strand in ADAPT. Prior to this appointment, Dr Caputo was an EDGE COFUND Marie Skłodowska-Curie Action research fellow in the ADAPT centre at Trinity College Dublin in the domain of Temporal Aware Personalised Information Retrieval. She is general Co-Chair of the 45th European Conference in Information Retrieval. She has also co-organised three evaluation campaigns: QA4FAQ, NEEL-IT and DIACR-ITA at EVALITA. She serves regularly as reviewer and program committee member for a number of international conferences, such as ECAI, AAAI, ECIR, SIGIR, LREC, SAC, WWW, ISWC, CLIC-it. She regularly attends IR & NLP conferences and workshops, such as SIGIR, ECIR, ACL, COLING, CLEF, and UMAP.

For this call, Dr Caputo is looking for projects in the areas of Graph Neural Network for Recommender Systems, Privacy-preserving Recommender Systems via Federated Learning, and Diachronic Analysis of Language (with a focus on low-resource languages).
Dr Aphra Kerr is a Professor at the Department of Sociology at Maynooth University and a Co-PI at the ADAPT Centre for Digital Media Technology. She is the scientific lead of the Transparent Digital Governance strand. Her ADAPT research focuses on the governance of AI systems, especially in relation to ethics, public values and harm, public policies shaping the social expectations and deployment of AI, and evaluating the impacts of AI on workers, users and citizens. Aphra is also involved in interdisciplinary projects researching inclusion and exclusion in smart cities and social/communicative robots. Aphra was on the multi-stakeholder Media and Technology committee of the European AI4people initiative (2020) which contributed to policy recommendations on trustworthy AI for the digital media domain. Her latest publications include: Global Games: Production, Circulation and Policy, Routledge, 2017 and she was the associate editor of the International Encyclopedia of Digital Communication and Society, (2015). She has held visiting fellowships at the University of Edinburgh (2019) and the University of Pennsylvania (2011). She was accepted into the Academia Europaea in 2020.

For this call, Dr Kerr is looking for projects in the following areas:

- Social impacts of AI in different domains – projects evaluating the social impacts of AI systems especially in relation to bias, transparency, and inequality
- Approaches for addressing transparency and responsibility in digital governance – especially in the governance of media, games, smart cities, healthcare, education
- Public policies related to AI – at national and international level – expectations, discourses, actors, relationship to fundamental values and ethical principles
- Artistic and creative interventions in and with AI for citizen engagement and empowerment
Dr M. Atif Qureshi, based in TU Dublin, is a lecturer in Data Analytics. Atif is an active funded researcher, and his research focuses on explainable artificial intelligence, machine learning, natural language processing, medicinal information retrieval, disinformation space, and social media analytics. Among his recent contributions, he completed an exploratory search project under COVID-19 rapid response call in 2020-2021. Currently, he is leading a project concerning the economic assessment of anti-immigrant sentiment in Ireland under Collaborative Alliances for Societal Challenges. Before the current appointment, Atif had contributed as technical lead to EU, EI, SFI funded projects and licensed an outcome to a leading media organisation of Ireland in the space of social media analytics. Atif is passionate about applied research and has authored over 40+ peer-review research publications. One of his research is a pioneer contribution in Explainable AI discourse and Word Embedding and is cited on Wikipedia under "Word embedding" and "Explainable artificial intelligence" articles.

For this call, Dr Qureshi is looking for projects that apply Explainable Artificial Intelligence (XAI) or Natural Language Processing (NLP) in combination with AHSS (Arts, Humanities, and Social Sciences) to a medical/public health domain or causes of social good; as well as projects that could benefit policy makers in those areas.
Dr Benjamin R Cowan is Assistant Professor at UCD’s School of Information & Communication Studies. He is a Funded Investigator within the ADAPT Centre, taking on the roles of Interaction & Control Research Challenge lead and NENC lead within the Digital Engagement Strand. He completed his undergraduate studies in Psychology & Business Studies (2006) as well as his PhD in Usability Engineering (2011) at the University of Edinburgh. His research lies at the juncture between psychology, human-computer interaction and communication systems in investigating how design impacts aspects of user behaviour in social, collaborative and communicative technology interactions. His recent research has focuses specifically on how theory and quantitative methods from psychological science can be applied to understand and design speech and language technologies as well as how we can design for habit change across of number of domains and contexts. Dr Cowan is the co-founder and co-director of the HCI@UCD group, one of the largest HCI groups in Ireland, and the Conversational User Interfaces conference series. He is also director of the MSc in Human-Computer Interaction at UCD. Through his research he has collaborated regularly with industry, partnering with companies such as Microsoft Research, Cerego and Voysis.

For this call, Dr Cowan is looking for projects in the areas of speech agent topics, specifically around the interaction/user experience/theoretical explorations of user language production in interaction.
Dr Bilal Yousuf is a lecturer and AI Researcher at Technological University Dublin, where he is a lead member of the university’s Faculty Research Committee. He completed his undergraduate studies in Computer Engineering and his MSc. in Electronic Commerce as well as his PhD in Personalised Visual Narratives (2016) at Trinity College Dublin. Prior to his PhD, Bilal worked as a Systems architect consultant across several client sites while employed by Accenture. Bilal’s research interests lie in the areas of Personalisation, Data Analytics, Learning Analytics, Open User Modelling, and Information Visualisation. Prior to his current appointment, Bilal had contributed as technical lead to a number of EU and SFI funded projects in the areas of eHealth, eLearning and Social Media Analytics, and has authored several peer-reviewed research publications across these areas.

For this call, Dr Yousuf is looking for projects that apply Explainable Artificial Intelligence and/or Natural Language Processing in the area of eLearning Environments with a focus on a combination of Open Learner Modelling and Learning Analytics.
Prof. Boualem Benatallah is a full professor of computing at Dublin City University (DCU, Ireland) since Jan 2022. Professor Benatallah has had over 21 years as a senior lecturer, associate professor, professor and then scientia professor at UNSW Sydney (Australia) before joining DCU. His main research interests are developing fundamental concepts and techniques in service Web composition, Web services middleware, quality control in crowdsourcing services, conversational cognitive services, and business processes automation. He has published more than 300 refereed papers including more than 90 journal papers. His work is highly cited (over 23,000 citations, h-Index: 66, according to Google School). He is a member of the steering committee of BPM and ICSOC conferences. He is member of the editorial board of numerous international journals including ACM Transactions on Web and IEEE transactions on services computing. He is fellow of the IEEE.

For this call, Prof. Benatallah is looking for project in the areas of:

- Cognitive Services and Processes (language models, intent synthesis);
- AI/crowd-based Conversational Training Generation (paraphrasing, dialogs);
- Quality control in AI data and models (bias, errors);
- AI augmentation and automation for processes (vulnerability discovery, software engineering, research, education, research t processes);
- Superimposition of conversational services over APIs, Web and Mobile apps.
Dr Cathy Ennis is a lecturer in the School of Computer Science in the Technological University of Dublin. The majority of her research is based in the field of Computer Graphics, specifically in perceptually guided graphics. She is interested in using Machine Learning for the creating of plausible animations and behaviours for virtual humans and groups in serious games and other realistic virtual environments.

**For this call,** Dr Ennis is looking for projects in the areas of animation, perception, working in 3D or VR environments, serious games and conversational agents.
Dr Darragh O'Brien is a member of ADAPT and a lecturer at the School of Computing, Dublin City University where he teaches in the areas of software engineering, secure software development and network security. Prior to joining DCU Dr. O'Brien was employed as a software engineer in industry.

His research interests lie in the general area of applying machine learning for both the detection and obfuscation of private information embedded in a carrier signal. Most recently this work has focused on the investigation of deep learning for disease (e.g. Parkinson's Disease) detection in the speech signal. Specifically, the work explored the potential of synthetic data, produced by generative models, to alleviate the problem of data scarcity which has in the past hindered the deployment in clinical settings of data-driven diagnostic approaches based on machine learning.

**For this call**, Dr O'Brien is seeking projects that will develop the means to obfuscate private information in the speech signal. Our speech signal reveals a wealth of personal information e.g. our gender, age, geographical origin, health, etc. Such information is routinely (and unwittingly) revealed when we engage through a speech recognition interface with increasingly popular third-party virtual assistants. Dr O'Brien is seeking projects that will explore approaches to obfuscating such information without negatively impacting on speech naturalness and intelligibility.
Dr Edoardo Celeste is Assistant Professor in Law, Technology and Innovation at Dublin City University, where he teaches in the areas of privacy, data protection and intellectual property law. His research interests lie in the field of digital rights and constitutionalism, social media policy and regulation, privacy and data protection law, EU digital policies, and digital economics. Edoardo is currently involved in two research projects with ADAPT: he is the principal investigator of the project 'Digital Constitutionalism: In Search of a Content Governance Standard' funded by Facebook Research, and investigator in the project PRIVATT - Assessing Irish Attitudes to Privacy in Times of COVID19, funded by Science Foundation Ireland. From 2016 to 2020, Edoardo was an Irish Research Council Government of Ireland Scholar at the Sutherland School of Law of University College Dublin. His PhD thesis 'Digital constitutionalism: The Role of Internet Bills of Rights' examines how the digital revolution is changing contemporary constitutionalism, and explores the constitutional role of Internet bills of rights. Edoardo previously studied law at the University of Rome ‘La Sapienza’, at the University of Paris II ‘Panthéon-Assas’, and at King’s College London. He is an alumnus of the European Law School (Humboldt-Universität zu Berlin). Over the past few years, Edoardo has been visiting researcher at the Nexa Center for Internet & Society of Torino and at the Center for Information Technology, Society, and Law (ITSL) of Zurich. In 2018, he was research fellow at the Humboldt Institute for Internet and Society (HIIG) of Berlin.

For this call, Dr Celeste is looking for projects in the area of digital rights in general, with a particular focus on data protection, and social media governance. He is also interested in supervising projects on new EU regulations in the digital field, Digital Sovereignty, interplay between AI and human/constitutional rights, regulation of online content and platforms.
Dr Giovanni Di Liberto received his Bachelor's degree in Information Engineering in 2011 and his Master's degree in Computer Engineering in 2013, both from the University of Padova, Italy. After a period working on his thesis at University College Cork (UCC, Ireland), he joined Edmund Lalor’s research lab in Trinity College Dublin where he pursued a PhD in auditory neuroscience in the School of Electronic & Electrical Engineering. He received his PhD in 2017 and he joined the Laboratoire des Systèmes Perceptifs at École Normale Supérieure (Paris) immediately after, under the supervision of Alain de Cheveigné and Shihab Shamma. He holds the title of Assistant Professor in Intelligent Systems in the School of Computer Science and Statistics at Trinity College Dublin. Giovanni’s scientific interests centre on understanding the brain mechanisms underlying speech comprehension. In his work, he develops data analysis methods and applies them to brain data to identify the neural processes responsible for the transformation of a sensory stimulus into its abstract meaning. Brain electrical data is measured with either non-invasive (e.g., electroencephalography - EEG) or invasive (e.g., electrocorticography - ECoG) technologies. The first aspect of his research is methodological and has produced novel experimental and analysis frameworks to investigate cortical auditory processing. The second aspect of his research is to use such novel methods to test theories on auditory perception, such as the hierarchical processing of speech and predictive processing theories (e.g. predictive coding). Finally, the third part of his work is translational and involves the identification of solutions to utilise his novel methods in applied settings, for example as tools to develop brain-computer interfaces (COCOHA project) or as objective measures for the monitoring of language development and healthy ageing.

**For this call,** Dr Di Liberto is looking for projects in the areas of speech and music perception.
Dr Haithem Afli is a faculty member at Munster Technological University and has over 12 years of R&D experience in the Machine Learning (ML) and Deep Learning research and applications space in industry and academia. He is one of the Funded Investigators in the Science Foundation Ireland (SFI) funded ADAPT Centre for Digital Content Technology, where his primary focus is on ML and Natural Language Processing (NLP). He is leading the Machine Learning research group ADAPT@MTU, lectures in the area and has been giving invited talks in Ireland and abroad on the applications of the ML and NLP. His research interests are primarily in the areas of Machine Translation, Sentiment Analysis, Natural Language Processing and Machine Learning. He joined MTU in 2018 from Dublin City University (DCU) where he was a member of the ADAPT Machine Translation (MT) team. He worked on a range of NLP projects from MT and Sentiment Analysis to Multimodal and Multilingual document alignment. After completing his undergraduate degree in Computer Science, he obtained an MSc in Computational Linguistics from Grenoble University (in France) in 2010 and a PhD in Computer Science from Le Mans University (in France) in 2014. As an academic researcher, he is keen to commercialise his research with industry partnerships and he is actively involved in managing academia-industry partnership projects. He is currently supervising five PhD students and two postdoctoral researchers all working in the application of ML and NLP. 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. He also has close working relationships and joint projects with a range of companies in the Machine Learning and NLP and its applications space both in Ireland and Europe.

For this call, Dr Afli is looking for projects in the areas of Machine Translation, Sentiment Analysis, Natural Language Processing and Machine Learning, and focussed respectively on the application of ML and NLP in Digital Health, 5G technology, AgriTech and security.
Dr. Harte is an Associate Professor in the School of Engineering in Trinity College. She is Co-PI and a founding member of the ADAPT SFI Centre. In ADAPT, she has led a major Research Theme centered on Multimodal Interaction involving researchers from Universities across Ireland and was instrumental in developing the future vision for the Centre for 2021-2026. She is also a lead academic of the hugely successful Sigmedia Research Group in the School of Engineering. Prior to returning to academia in 2008, Naomi worked in high-tech start-ups, including her own company. She also previously worked in McMaster University in Canada. She was a Visiting Professor at ICSI in 2015, and became a Fellow of TCD in 2017. She earned a Google Faculty Award in 2018 and was shortlisted for the AI Ireland Awards in 2019. She currently serves on the Editorial Board of Computer Speech and Language and will Chair Interspeech 2023 in Dublin.

Naomi’s research centres around Human Speech Communication. She likes to consider speech as something we both hear and see, with a strong multimodal aspect to her work. Her research involves the design and application of mathematical algorithms to enhance or augment speech communication between humans and technology. Much of that work is underpinned by signal processing and deep learning, but also requires an understanding of how humans interact. Her current research projects include audio-visual speech recognition, speech synthesis evaluation, multimodal interaction and speech analysis, and foreign-accented speech. Her industrial background brings a real-world approach to her research.

For this call, Naomi is keen to work with Postdoctoral Research Fellows with diverse backgrounds in speech technology, machine learning, deep learning, signal processing, linguistics, or psychology that can extend or complement existing research activities in her group.
Rob's main research interests are data governance and AI governance. He specialises in applying linked data or knowledge graphs for data governance, risk management in socio-technical systems, trust in human-AI teams and data protection. Rob is an Assistant Professor in the School of Computing, Dublin City University and founding Chair of the DCU MA in Data Protection and Privacy Law. As a Funded investigator in ADAPT, Rob leads the Value and Risk Challenge in the Transparent Digital Governance research strand. He is coordinator of the H2020 Marie Skłodowska-Curie project ELITE-S on ICT standards. He is PI/co-PI on the Empower Data Governance industry spoke (https://www.empower-datagovernance.ie/) and the ARK (Access Risk Knowledge) project (https://openark.adaptcentre.ie/) with the TCD Centre for Innovative Human Systems, Dublin Fire Brigade and St James's Hospital Dublin. He is on the management committee for the Distributed Knowledge Graphs COST Action (https://www.cost.eu/cost-action/distributed-knowledge-graphs/).

For this call, Dr Brennan is looking for projects in the areas of cyber security risk, trust in human-AI teams, data protection, data quality, FAIR data, data governance and AI governance.
Prof. Dahyot is a Professor of Computer Science at Maynooth University (Ireland) and a PI in the SFI ADAPT Research Centre. Her research interest are in pattern analysis and machine intelligence (machine learning, AI) with signal processing applications (e.g. remote sensing, computer vision, computer graphics), applied for instance for automatic asset mapping (see https://aimapit.com for commercialization of technology developed in her group). She has been the President of the Irish Pattern Recognition and Classification Society (http://iprcs.org, 2014-2020), and she has been the general chair organizing the European Signal Processing Conference (EUSIPCO) in 2021.

For this call, Prof. Dahyot is looking for projects involving graph learning (e.g. GNN) with applications in pattern recognition, visual scene understanding, GIS and computer vision.
Dr Susan McKeever is a senior lecturer at TU Dublin School of Computer Science. Her main research areas are in the area of machine learning including deep learning - applied across activity recognition, text mining, image and video related problems and in the general domain area of data analytics. She also has a specialisation in evidence theory. She is funded on three SFI CRTs and is a funded academic mentor to two EI-funded Marie Curie scholarships. She is also a principal investigator with the CeADAR technology group.

Prior to joining TU Dublin (TU Dublin), Susan worked in the IT sector, with Accenture, and as an IT project manager. She holds a Bachelor of Engineering from Trinity College Dublin, an MSc in IT for Strategic Management (DIT). She received her PhD from UCD in 2011.

For this call, Dr McKeever is looking for projects in the areas of application of machine learning in a practical domain (e.g. autonomous drone flight, automated road inspection, visually impaired assistive technology, remote heart monitoring) and Autonomous systems for monitoring/ management of the environment (i.e. using sensor or any state data to determine the state of people, things, and make decisions). She is also interested in projects in the general area of computer vision/ deep learning (both improving some aspect of these two areas and applying these techniques).