Curriculum Vitae

Fiona Carroll PhD, MSc, GradDip, BA, SFHEA, NTF.

A. Personal Details

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Google Scholar: https://scholar.google.co.uk/citations?hl=en&user=WxuJ1OoAAAAJ

B. Personal Statement

Expert in human-computer interaction (HCI) with a proven track record of both teaching and research excellence spanning over twenty years. Experienced, award-winning educator and research leader who exhibits senior leadership through the building of inter-disciplinary research teams and who mentors students and colleagues. A committed research advocate who is passionate in pushing human wellbeing needs in HCI as well as driving inclusivity, diversity and equality in computing education.

Esteem and Academic Leadership Indicators

- Senior Fellow of the Higher Education Academy (2024)
- National Teaching Fellowship Scheme Award (2024)
- Full member of the Sigma Xi, The Scientific Research Honor Society (2024 to present)
- Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) (2023 to present)
- Guest editor with the Design Science Journal (2023 to present)
- Adjunct Professor at the Vellore Institute of Technology, India (2022 to 2025)
- Research ethics coordinator for Cardiff School of Technologies (2022 to present)
- Founding head of the Digital Technology Learning Support network (2022 to present)
- Founding director of the Creative Computing Research Centre (2021 to present)

C. Career Development

- 2018–Present: Reader in Human Computer Interaction (FT), Cardiff School of Technologies, Cardiff Metropolitan University, Wales. (Promoted to reader in June 2021)
- 2017–2018: Senior Lecturer (FT), Department of Computer Science and Creative Technologies, University of the West of England (UWE), England.
- 2009–2017: Lecturer (PT), School of Computing and Mathematics, University of South Wales, Wales.
- **2006–2008:** Learning Technologist (FT), Department of Adult Continuing Education (DACE), Swansea University, Wales.
- **2005–2006:** Research Assistant and Tutor (PT), School of Psychology and Sociology, Edinburgh Napier University, Scotland.
- 2005–2006: Adult Education Computing Tutor (PT), Wester Hailes Education Centre, Edinburgh, Scotland.
- 2003–2005: Research Assistant and Tutor (FT), School of Computing, Edinburgh Napier University, Scotland.

D. Higher Academic Qualifications

- 1. Ph.D. in Human Computer Interaction (HCI), Edinburgh Napier University, Scotland.
 - Doctoral Thesis: Engaging Photorealistic VR: An Aesthetic Process of Interaction (2008)
- 2. MSc (Distinction) in Interactive Media, University of Limerick, Ireland.
 - Master Dissertation in HCI: Design and Development of Interactive educational 'Pop-up' book (2002)
- 3. Graduate Diploma in Art & Design Teaching, Institute of Technology, Limerick, Ireland (1998).
- 4. BA degree in Ceramic Design, Institute of Technology, Limerick, Ireland.
 - Degree Dissertation in Design: East meets West: Exploring the Eastern and Western pottery traditions in pattern making (1996).

E. Funded Innovation & Research Projects

At Cardiff Met University, I am founding director of the Creative Computing Research Centre (CCRC). My research and innovation sit within the field of human-computer interaction (HCI) with specialisms in aesthetic and ethical computing, human factors of cyber security, and educational technologies. As principal or co-investigator, I have been awarded over £2 million in external and internal research and innovation funding, of which £1.78 million of external funding was awarded directly to my respective institute. A breakdown of these awards follows:

- 1) External Innovation Funding: £1,556,361.22 awarded to my institute (total: £2,286,361.22).
 - I. DTLSN. FutureMakers Project. Bridgend UKSPF. £29k (Total: £29k, 2025). PI: Dr Raj Rathore; Co-Ins: Dr. Issam Damaj and Dr. Fiona Carroll (Cardiff Met University).
 - II. HerHCAI: Girls in STEM Education for Human-Centred Artificial Intelligence: Nigeria and UK. British Council £24,361.22 (Total: £24,361.22, 2025). Pl. D. Bola Omisade (Cardiff Met University). Co-Ins: Professor Olutayo Kehinde Boyinbode (Federal University of Technology, Akure) and Dr Fiona Carroll (Cardiff Met University).
 - III. DTLSN. Manufacturing and Engineering Skills for Young People. Bridgend UKSPF. £33k (Total: £33k, 2025). PI: Dr Fiona Carroll; Co-Ins: Dr. Bola Omisade (Cardiff Met University).
 - IV. Empowering Women's Climate Change Resilience in Morocco Through Research and Technological Innovation: A Multidisciplinary Approach. Funded by British Council, Researcher Challenges, Going Global Partnerships, £30k (Total: £30K, November 2024). Pl: Issam Damaj (Cardiff Met University) and Pl: Dr Loubna Mekouar (Mohammed VI Polytechnic University, Morocco), Co-Ins: Prof Dalila Loudyi and Prof Rachida El Morabet (University Hassan II, Casablanca, Morocco) and Prof Elizabeth Redmond and Dr Fiona Carroll (Cardiff Met University).
 - V. Fluent interactions: The role of smooth turn-taking in supporting language learning motivation. Funded by Coleg Cymraeg Cenedlaethol. £45k (Total: £45k, May 2024). Pl: Dr Mirain Rhys, Co-Ins: Dr. Chiara Gambi, Dr. Fiona Carroll and Helen Prosser.
 - VI. Data Fusion Dynamics: A Collaborative UK-Saudi Initiative in Cybersecurity and Artificial Intelligence. Funded by Application for UK- Saudi Challenge Fund, British Council. £40k. (Total: £40k, February 2024). Pl: Dr. Sabeen Tahir (Cardiff Met University), Co-In: Dr. Sheikh Tahir (Cardiff Met University), Dr. Fiona Carroll (Cardiff Met University), Dr. Reem Moteab Alotaibi (King Abdulaziz University), Dr. Linda Mohaisen (King Abdulaziz University) and Prof Roberto Di Pietro (King Abdullah University of Science and Technology, KAUST).
- VII. The evaluation of Quality of Experience (QoE) in Augmented Reality (AR) and Virtual Reality (VR) usage in Healthcare applications. British Council: Springboard Programme for bilateral UK-France or UK-Germany ECR partnership grants. £10k. (Total: £10k, 2023). PI: Dr. Chaminda Hewage (Cardiff Met University) & Prof. Patrick Le Callet (University of Nantes, France); Co-Ins: Dr. Fiona Carroll (Cardiff Met University) & Dr. Toinon Vigier (University of Nantes, France)
- VIII. Wales-Karnataka Partnership Project. Global Wales. £5k (Total: £10k, 2023). PI: Dr. Sandeep Sengar (Cardiff Met University); Co-Ins: Dr. Fiona Carroll (Cardiff Met University) & Professor Harish Ramaswamy (Raichur university)
 - IX. DTLSN. Digital Technology Learning Support Network: Specialist IT Skills. Neath Port Talbot UKSPF. £92k (Total: £98k, 2023). PI: Dr Fiona Carroll; Co-Ins: Dr. Shadan Khan Khattak (Cardiff Met University), Professor Faron Moller (Swansea University) and Dr. Reza Montasari (Swansea University).
 - X. CyberHER: Bridging the Gender Gap in Cyber Security through Inclusive Pathways. Funded by Gender Equality Partnerships, British Council A collaboration with Pakistan, £25k (Total: £25k, November 2023). PI: Dr. Mohammad Zafar (Cardiff Met University), Co-In: Dr. Fiona Carroll (Cardiff Met University) and Dr. Sumaira Johar (University of Peshawar)
- XI. DTLSN. Digital Technology Learning Support Network (DTLSN): Digital Skills Boot Camps. Powys UKSPF. £126k (Total: £133k, 2023). Pl: Dr Fiona Carroll; Co-Ins: Dr. Rajkumar Singh Rathore (Cardiff Met University), Professor Faron Moller (Swansea University).
- XII. DTLSN. Empower people to improve their future with digital inclusion and digital skills. Funded by Vale of Glamorgan UKSPF programme. £59k (Total: £71k, 2023). PI: Dr Fiona Carroll; Co-Ins: Dr. Sabeen Tahir (Cardiff Met University), Dr. Mohammad Zafar (Cardiff Met University), Professor Faron Moller (Swansea University).

- XIII. DTLSN. Digital Technology Learning Support Network 4.0. Funded by Blaenau Gwent UKSPF programme. **£236k** (Total: £371k, 2023). PI: Dr Fiona Carroll; Co-Ins: Dr. Chaminda Hewage (Cardiff Met University), Professor Faron Moller (Swansea University).
- XIV. DTLSN. Digital Technology Learning Support Network 4. 0. Funded by Blaenau Gwent UKSPF programme. **£25k** (Total: £25k, 2023). PI: Dr Fiona Carroll; Co-Ins: Dr. Chaminda Hewage (Cardiff Met University), Professor Faron Moller (Swansea University).
- XV. Strategic Investment Fund 2022/23: Institute of Coding in Wales Digital Skills Bootcamps. Funded by HEFCW programme. £54k (Total: £ 612k, 2023). PI: Professor Faron Moller. Co-Ins: Professor Stuart Allen (CU); Professor Vic Grout (GU); Lynette Thomas (OU); Dr Fred Labrosse (AU); Dr Sa'ad Mansoor (BU); Professor Andrew Ware (USW); Dr Fiona Carroll (CMU); and Dr Kapilan Radhakrishnan (UWTSD).
- XVI. Partnership for Education and Research (PER) Programme for Women in Cybersecurity. Funded by British Council Saudi Arabia, £60k (Total: £60k, February 2022). Pl: Dr Liqaa Nawaf; Co-In: Dr. Chaminda Hewage and Dr. Fiona Carroll.
- XVII. DTLSN. Digital Technology Learning Support Network. Funded by UKCRF programme. £129k (Total: £176k, 2021). PI: Dr Fiona Carroll; Co-Ins: DR. Chaminda Hewage (Cardiff Met University), Professor Faron Moller (Swansea University).
- XVIII. Micro Credential Project. Funded by HEFCW programme. £34k (Total: £350k, 2021). Pl: Professor Faron Moller. Co-Ins: Professor Stuart Allen (CU); Professor Vic Grout (GU); Lynette Thomas (OU); Dr Fred Labrosse (AU); Dr Sa'ad Mansoor (BU); Professor Andrew Ware (USW); Dr Fiona Carroll (CMU); and Dr Kapilan Radhakrishnan (UWTSD).
- XIX. Global Wales Vietnam / Wales Partnership Project. Funded by British Council Vietnam HEP programme. £8k (Total: £8k, 2021). PI: Dr Rob Meyers; Co-Ins: Prof Jeff Lewis and Dr Debbie Clayton, Dr. Chaminda Hewage and Dr. Fiona Carroll (Cardiff Met University), Dung Le Hoang, University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City
- XX. From data to business value: Developing a data physicalisation framework to transform data into value for Welsh business. Funded by Smart Expertise (Welsh Government/ European Commission under European Regional Development Funds regulations), £217k (Total: £217k, 2020-2022). PI: Dr Fiona Carroll; Co-In: Dr Simon Thorne and DR Jon Pigott, Cardiff MetSchool of Technologies; Paul Newbury, Yard Digital Ltd; Natalie Taylor, Cardiff City Council and Luke Maggs, Natural Resource Wales.
- XXI. The Human factors of Cybercrime: Understanding how matters of transnational and international cybercrime can impact Welsh African business links. Funded by Strategic Insight Programme (SIP) placement (funded by HEFW), £2500 (Total: £2500, 2020). PI: Dr Fiona Carroll; Co-In: Dr Liqaa Nawaf, Dr Chaminda Hewage & Dr Thanuja Mallikarachchi, Cardiff School of Technologies.
- XXII. Jam the mess A get-together to create educational digital games for untangling the messy mechanics of cancer. Funded by ISSF3 Public Engagement Proof-of-Concept Award, Welcome Trust, £2,400 (Total: £5k, 2020). PI: Dr Giusy Tornillo, Cardiff University; Co-In: Dr Fiona Carroll and Dr Glenn Jenkins, Cardiff School of Technologies.
- XXIII. Unlocking the potential of 'Welsh' for FE and HE computer science academics: Welsh medium primary school children to teach the latest cutting-edge robots how to speak the Welsh Language. Funded by Strategic Insight Programme (SIP) placement (funded by HEFW), £500 (Total: £500, 2020). PI: Dr Fiona Carroll.
- XXIV. Understanding How the Latest ISO Standards Can Enhance the Security of Local Welsh Industries. Funded by Strategic Insight Programme (SIP) placement (funded by HEFW), £2500 (Total: £2500, 2019). PI: Dr Fiona Carroll; Co-In: Dr Liqaa Nawaf, Cardiff School of Technologies.
- XXV. Understanding the Potential of Brain Computer Interface (BCI) Technology To Create Better Online Security Experiences. Funded by Strategic Insight Programme (SIP) placement (funded by HEFW), £2500 (Total: £2500, 2019). PI: Dr Fiona Carroll; Co-In: Dr James Kolasinski, Cubric, Cardiff University.
- XXVI. Cyber Security workshop. Funded by Strategic Insight Programme (SIP) placement. Funded by HEFW, **£500** (Total: £500, 2019). PI: Dr Fiona Carroll; Co-In: Dr Chaminda Hewage, Cardiff School of Technologies.
- XXVII. Cyber Girls workshop. Funded by Strategic Insight Programme (SIP) placement (funded by HEFW), £500 (Total:

£500, 2019). PI: Dr Fiona Carroll & Dr Tas Begum, Cardiff School of Technologies.

2) External Research Funding: £228,875.56 awarded to my institute (Total: £228,875.56)

- I. Minimum Digital Living Standard. Welsh Government. £XXX (Total: £250,000, 2025). Pl. Nick Morgan, Miller research. Co-Ins: Dr. Fiona Carroll, Dr. Hasan Kahtan and Dr. Joel Pinney (Cardiff Met University).
- II. Leveraging Intelligent Technology for Advancing Hand Hygiene and Behaviour for Food Safety at Home. (2024). Funded by UK Food Safety Research Network, £7,954.56 (Total: £7,954.56, 2024). PI: Issam Damaj Co-In: Dr. Ellen Evans, Professor Elizabeth Redmond and Dr. Fiona Carroll.
- III. Research visit application (2023). Funded by King Abdul Aziz University, **£20k** (Total: £20k, 2023). PI: Dr Fiona Carroll and Dr. Sabeen Tahir.
- IV. Al based realistic synthetic media support for creative film industry in Wales. Funded by WIN Wales fund, £10k (Total: £10k, 2023). PI: Dr. Sandeep Sengar Co-In: Dr Fiona Carroll, Enda Grennan (MIT, Ireland), Inga Burrow (USW), Dr. Jing Wu (CU)
- V. Welsh-Canadian Connected Mobility Research Group. Funded by WIN Wales fund, £10k (Total: £10k, 2023). PI: Dr. Issam Damaj Co-In: Dr. Ginu Rajan, Dr. Fiona Carroll, Dr Haytham Besaiso, Dr Mamoun Qasem (USW), Dr Zhongfu Zhou (SU), Prof. Hussein Mouftah (uOttawa) and Dr Mehmet E. Aydin (UWE)
- VI. Exploring people's views on the role of technology in the Trafficking of Human Beings (THB). Funded by UKRI talent and research stabilisation fund, £9k (Total: £9k, 2023). PI: Dr. Fiona Carroll.
- VII. Cutting edge video production collaboration to promote ETR digital champion (working with Aneurin Bevan Health Board Pathology Department). Funded by ESRC Impact Acceleration Account (Cardiff University), £4k (Total: £4k, 2022). Pl: Dr. Fiona Carroll, Co-In: Inga Burrows (USW)
- VIII. The Button Friends Idea Lab Activity. Funded by Creative Clwstwr (https://clwstwr.org.uk/) (AHRC), £500 (Total, £500). (December 2020). PI: Dr Fiona Carroll.
 - IX. Developing aesthetic heuristics to leverage more 'insightful' data visualizations for better business decisions. Funded by KESS II European Social Fund Convergence Program, £53k (Total: £53k, Sept 2019 Sept 2023). PI: Dr Fiona Carroll; Co-In: Dr Esyin Chew and Paul Newbury, Yard Digital Ltd.
 - X. 316 Smart Home Café: Multi-lingual Humanoid Robotics for Hospitality with Service Intelligence. Funded by KESS II European Social Fund Convergence Program, £53k (Total: £53k, 2019 2022) [This KESS did not run as we had no eligible student]. PI: Dr Esyin Chew; Co-In: Dr Fiona Carroll and Ms Vicky Chung, 316 Home Café Ltd.
 - XI. Desired Digital Customer Experience: Using neuroaesthetics to inform the design of online services that will shape and influence user behaviour. Funded by KESS II European Social Fund Convergence Program, £50k (Total: £50k, 2016 2023).
- XII. Using Brain Computer Technology (BCI) to identify the neural signature of perceived threat in an online environment. Funded by Welsh Crucible Seedcorn Funding Scheme, £6k (Total: £6k, Jan to Sep 2020). PI: Dr Fiona Carroll; Co-In: Dr James Kolasinski, Cubric, Cardiff University
- XIII. CADA DIA Welsh an eight-week pilot online language-learning program. Funded by Welsh Government, £5k, (Total: £5K, Summer 2016). PI: Dr Fiona Carroll; Co-In: Michael Henry, University of Missouri Kansas City.

3) Internal Funding: £47,428.48 awarded.

- I. SMART SINK: Developing a sensor-based technology to monitor and enhance hand hygiene compliance in food manufacturing environments. Funded by Cardiff Met Research & Innovation Services (RIS) R&B 'Innovation Small Grant' Fund, £3k (2024). PI: Ellen Evans, Issam Damaj, Elizabeth Redmond and Fiona Carroll
- II. Exploring how smart technology can improve an athlete's performance and/or experience on an extreme endurance expedition. Funded by Cardiff Met Research & Innovation Services (RIS) R&B 'Getting Started' Fund, £3k, (2023). PI: Dr Fiona Carroll, Dr. Issam Damaj, Dr. Paul Smith, Dr. Gemma Robinson and Dr. Marianne Gittoes.
- III. Al HCI. Working with Dr. B. Radhika Selvamani, Vellore Institute of Technology, Chennai. Funded by Cardiff

- Met Internal RIS Network Builder funding, £2.5k, (2023) PI: Dr. Fiona Carroll
- IV. Exploring how MRI can be used to visualize the longitudinal impact of dynamic variants on a medical implant or health product. Funded by Cardiff Metropolitan University, Research and Innovation Network Builder Fund, £3k, (2022). PI: Dr Fiona Carroll (CST), Dr. Angesh Anupam (CST), Prof. Dominic Eggbeer (PDR) & Dr Bethany Keenan (CU)
- V. Sustainable Tourism Communication. Funded by Cardiff Metropolitan University, Global Academies Research and Innovation Development Fund, £3k, (2022). Pl: Dr Sheena Carisle; Co-In: Dr Fiona Carroll (CST), Elizabeth Redmond (Food Industry Centre), Laura Rees-Davies (CSESP), Nick Taylor-Collins (CSESP) and John Pigott (CSAD).
- VI. CiA-TRACED: Commons & Augmented Intelligence for human-TRafficking-data Acquisition & Analysis to determine Coercion Exploitation and Displacement (movement). Funded by Cardiff Met Internal RIS Network Builder funding, £1k (2022), PI: Dr. Fiona Carroll
- VII. Set up a Brain Computer Interface (BCI) facility for the Creative Computing Research Centre. Funded by Cardiff Met Research & Innovation Services (RIS) R&B 'Get Started Quick' Fund, £3k, (2022). PI: Dr. Kazeem Olorisade, Co-In: Joel Pinney and Dr Fiona Carroll
- VIII. Cardiff Met Bid Development Support Funded by Cardiff Met Global Academy, £4k, (February 2022). PI: Dr. Fiona Carroll.
 - IX. Building towards an online visual warning standard: Understanding the human aesthetic response for the design of visual warnings to counter misinformation. Funded by Global Academies Santander Fellowship, £9k (2021). PI: Dr Fiona Carroll
 - X. Exploring a multidisciplinary aesthetic programming approach to engage more girls in IT. Funded by Cardiff Met University Impact Builder application fund. £2.5k (2021). PI: Dr Fiona Carroll.
 - XI. To grow new facilities to promote ethically aligned technology at the Creative Technology Research Group at CST. Funded by Cardiff Met Research & Innovation Services (RIS) R&B 'Get Started Quick' Fund, £2.5k, (2019). PI: Dr Fiona Carroll.
- XII. Optimising End Users Online Safety from Wireless Network infrastructure to User interface. Funded by Cardiff Metropolitan University, Global Academies Research, and Innovation Development Fund, £2k, (2019). PI: Dr Fiona Carroll; Co-In: Dr Liqaa Nawaf, Cardiff School of Technologies.
- XIII. Exploring formal and informal learning methods to support gender diversity at Cardiff Met: A Cardiff School of Technologies (CST) project to design for female friendly curriculums. Funded by Cardiff Metropolitan University, Expand: Student Engagement Fund, £1k, (2019). Pl: Dr Fiona Carroll.
- XIV. So Much Depends' Digital Text/Art Project in partnership with Cardiff Council. Funded by University of South Wales, Impact Investment Scheme, £3k, (2013). PI: Dr Fiona Carroll; Co-In: Dr Alice Entwistle & Dr Inga Burrows, University of South Wales.
- XV. Novel learning: Developing an etextbook course on computer architecture. Funded by University of South Wales, Centre for Learning and Teaching, £5k, (2013). Pl: Dr Fiona Carroll; Co-In: Dr Nathan Thomas, University of South Wales.

F. Research Publications

I have published more than 100 research outputs, including 26 journal articles (including nine Q1 journals and four Q2 journals), 2 books, 18 book chapters, and numerous conference proceedings and press releases. A full listing is as follows:

(I) Journal Articles

- 1. Hoss, R., <u>Carroll, F.,</u> Omisade, B. (In Review). Building trust in neurotechnology: agile laws and ethical post-human perspectives for mental privacy. International Journal of Law and Information Technology.
- 2. <u>Carroll, F.</u> & Gholizadehdastjerd, S. (In Review). It Takes a Village to Raise a Digitally Competent Child: Understanding What is Needed to Build a Sustainable Digitally Inclusive Culture. Journal of Community development. Taylor & Francis.
- 3. Gholizadehdastjerd, S., <u>Carroll, F.,</u> Ayeni, I.I. & Hewage, C. (In Review). From Basic Use of IT to Digital Empowerment: A Study of Digital Skills and Inclusion in Wales. British Journal of Educational Technology. Wiley.

- Gholizadehdastjerd, S. & <u>Carroll, F.</u> (In Review). Are We Closing the Digital Divide? Exploring Current Perspectives on Digital Skills Education in Wales. (Work in progress) Wales Journal of Education.
- 5. Alarifi, S. & <u>Carroll, F.</u> (2025). Developing a framework to test the eligibility of GDPR outside the EU: An Exploratory Case Study with Hajj and Umrah Industry in Saudi Arabia. Journal to be confirmed. (Work in progress)
- 6. Carlisle, S., Jones, B., <u>Carroll, F.</u>, Rees-Davies, L., & Redmond, E. (In Review). Understanding destination perceptions in Wales for future interventions to mitigate undesirable visitor behaviours. Tourism Management Perspectives.
- 7. <u>Carroll, F.,</u> Svendsen, R., England, E., Hoff, S., Labor, M & Nguyen, D. (In Review). Unveiling Vulnerabilities in Our Digital Society: Factors Influencing Online Recruitment for Human Trafficking and Perceived Online Safety. International Journal of Human–Computer Interaction, Taylor & Francis.
- 8. Slattery, D., Renaud, K. & <u>Carroll, F.</u> (Pending). Artificial Intelligence: Golden Promises with Clay Foundations. Design Science Journal. Cambridge University Press.
- 9. Kalsi, N., <u>Carroll, F.,</u> Minor, K., & Platts, J. (2025). Optimising Hotel Sustainability Through Smart Technology: A User-Centred Approach to Measuring Water Usage via IoT Sensors in Housekeeping Operations. Journal of Smart Tourism, 0(0). https://doi.org/10.1177/27652157251354987
- 10. Sengar, S.S., Hasan, A.B., Kumar, S. & <u>Carroll, F.</u> (2024). Generative artificial intelligence: a systematic review and applications. *Multimed Tools Appl* (2024). https://doi.org/10.1007/s11042-024-20016-1
- 11. Alhoraibi, L., Alghazzawi, D., Alhebshi, R., Nawaf, L., and <u>Carroll, F.,</u> (2024). Enhancing Industrial Wireless Communication Security Using Deep Learning Architecture-Based Channel Frequency Response, IET Signal Processing, vol. 2024, Article ID 8884688, 13 pages, https://doi.org/10.1049/2024/8884688
- 12. Yu, S., <u>Carroll, F.</u> and Bentley, B. L., (2024). Insights into Privacy Protection Research in Al. in IEEE Access, doi: 10.1109/ACCESS.2024.3378126. Available from: https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=10473023&isnumber=6514899
- 13. <u>Carroll, F.</u>; Pigott, J.; Taylor, A.; Thorne, S.; Pinney, J. (2023). Creative Environmental Exhibition: Revealing Insights through Multi-Sensory Museum Experiences and Vignette Analysis for Enhanced Audience Engagement. Heritage, 7, 76-94. https://doi.org/10.3390/heritage7010003
- 14. Carroll, F. (2023). Human-Browser Interaction: Investigating whether the current browser application's design actually make sense for its users?. International Journal of Human–Computer Interaction. https://www.tandfonline.com/toc/hihc20/current
- 15. Nisha Rawindaran, N., Nawaf, L., Alarifi, S, Alghazzawi, D., <u>Carroll, F.,</u> Iyad Katib,I., Hewage, C. (2023) Enhancing Cyber Security Governance and Policy for SMEs in Industry 5.0: A Comparative Study between Saudi Arabia and the United Kingdom. Digital (ISSN 2673-6470). https://www.mdpi.com/journal/digital
- 16. <u>Carroll, F.,</u> Faruque, R., Hewage, C., Bentotahewa, V. and Meace, S. (2023). The Journey to making 'Digital Technology' Education a Community Learning Venture. Education Sciences. <u>Education Sciences | An Open Access Journal from MDPI</u>
- 17. Dashti, S., Newball, AA.N., Prakash, E., Hussain, F., & <u>Carroll, F.</u> (2022). Role of Intricate Pottery Visualisation in Ceramic Manufacturing. IEEE Computer Graphics and Applications. The Special Journal Issue of on the Role of Visualization in the Manufacturing Industry.
- 18. Dashti, S., Prakash, E., Navarro-Newball, A.A., Hussain, F., <u>Carroll, F.</u> (2022). PotteryVR: virtual reality pottery. The Visual Computer (2022). https://doi.org/10.1007/s00371-022-02521-2
- 19. Clifton, N., <u>Carroll, F.</u> & Wheeler, R. (2022). Coworking Spaces, Proximity, Innovation and the 4th 'Extended Reality' Space Digital transformation and the 4th space. https://www.pdcnet.org/du/content/du-2022-0032-0002-0061-0082
- 20. Pigott, J, <u>Carroll, F,</u> Taylor, A, Hornby, J, Thorne, S. & Gardner, E. (2022). Data Impressions for a Smart City: Exploring new ways to present and engage citizens in environmental data. Journal of Smart Cities and Society. https://content.iospress.com/articles/journal-of-smart-cities-and-society/scs220002
- 21. Pinney J, <u>Carroll F,</u> Newbury P. (2022). Human-robot interaction: the impact of robotic aesthetics on anticipated human trust. PeerJ Computer Science 8:e837 https://doi.org/10.7717/peerj-cs.837
- 22. Carroll, F., Adejobi, J.A. & Montasari, R. (2022) How Good Are We at Detecting a Phishing Attack? Investigating the Evolving Phishing Attack Email and Why It Continues to Successfully Deceive Society. SN COMPUT. SCI. 3, 170.
- 23. Montasari, R., MacDonald, S., Hosseinian-Far, A., <u>Carroll, F.</u> & Daneshkhah, A. (2020). Network and hypervisor-based attacks in cloud computing environments. Int. J. Electronic Security and Digital Forensics. In Inderscience Publishers Ltd.
- Lewis, R., Anderson, T. and <u>Carroll, F.</u> (2020). 'Can school enrolment and performance be improved by maximizing students' sense of choice in elective subjects?'. In Journal of Learning Analytics, vol. 7(1), pp. 75–87, doi: 10.18608/jla.2020.71.6
- 25. Edmond, E. C., Prakash, E., and <u>Carroll, F.</u> (2020). 'Robodoc: critical ethical issues to consider for the design and development of a robotic doctor experience'. In Journal of Future Robot Life, 1 Jan. 2020:1 5. DOI: 10.3233/FRL-200002
- 26. Entwistle, A., Burrows, I. & <u>Carroll, F.</u> (2017). 'Aesthetic co-producing for site-specific experiential inclusion'. In Open Cultural Studies Journal: Media and Emotions. The New Frontiers of Affect in Digital Culture (Special Issue). ISSN (Online).
- 27. Henry, M., <u>Carroll, F.,</u> Cunliffe, D. & Kop, R. (2017). 'Learning a minority language through authentic conversation using an online social learning method'. In Journal of Computer Assisted Language Learning. UK: Taylor & Francis.
- 28. <u>Carroll, F.</u> & Kop, R. (2016). 'Colouring the gaps in technology enhanced learning: aesthetics and the visual in learning', in special issue on Visual Aspects in Technology. Enhanced Learning, International Journal of Distance Education Technologies. 14 (1) pp. 92-103.
- 29. Lewis, R. and <u>F. Carroll</u> (2016). 'Creating seating plans: a practical application'. Journal of the Operational Research Society, 67(11), pp. 1353-1362. (10.1057/jors.2016.34).
- 30. Kop, R. & <u>Carroll, F.</u> (2014). 'Cloud computing: learning from a massive open online course on how to enhance creativity in learning', In European Journal of Open, Distance and E-Learning. [Online]. Available at: http://www.eurodl.org/?p=special&sp=articles&article=457
- 31. Carroll, F. & Lewis, R. (2013). 'The 'engaged' interaction: important considerations for the hci design and development of a web application for solving a complex combinatorial optimization problem'. In World Journal of Computer Application and Technology 1(3), pp. 75-82. (DOI: 10.13189/wjcat.2013.010303).

- 32. Carroll, F., Jenkins, A., Woodward, C., Kop, R. & Jenkins, E. (2012). 'Exploring how social media can enhance the teaching of action research', Action Research Journal, 10 (2), pp. 170-188. (DOI: 10.1177/1476750311424945).
- 33. Carroll, F. & Kop, R. (2011). 'A learning, research and development framework to design for a holistic learning experience', E-Learning and Digital Media Journal, 8(4), pp.315 -356. ISSN 2042-7530.
- 34. Carroll, F. (2010). 'Designing (for) experiences in photorealistic VR environments'. New Review of Hypermedia and Multimedia, 16, pp. 181-194. (http://dx.doi.org/10.1080/13614561003710250)
- 35. McCall, R., ONeill, S., <u>Carroll F.,</u> Benyon, D. & Smyth, M. (2005). 'Responsive environments, place and presence'. Psychnology Journal, 3(1), pp. 34-74.

(II) Book

- 36. <u>Carroll,F.</u> (2024). Coding for Kids. Hamilton-Vale Publishing, Wales. ISBN-10:1842856057. https://www.amazon.co.uk/Coding-Kids-Fiona-Carroll-Ph-D/dp/1842856057
- 37. Montasari, R., <u>Carroll, F.,</u> Mitchell, I., Hara, S., & Bolton-King, R. (eds) (2022). Privacy, security and forensics in the internet of things (IoT). Springer International Publishing. https://doi.org/10.1007/978-3-030-91218-5

(III) Book Chapters

- 38. Carroll, F., Gittoes, M., Damaj, I., Robinson, G. & Gunasegaran, N. K. (Pending). Using Technology to Capture Women's Emotional and Physical States During Extreme Expeditions: Insights for Improved Preparation and Performance. In edited volume titled "Smart Technologies for Sustainable Development Goal: Gender Equality", CRC Press (Taylor & Francis Group), USA
- 39. Porhonar, P., Kahtan, H., Carroll, F., Simon, T. (2024). Bridging the Gap: Engaging Girls in Computing Through Physical Technologies. In: Al Mubarak, M., Hamdan, A. (eds) Innovative and Intelligent Digital Technologies; Towards an Increased Efficiency. Studies in Systems, Decision and Control, vol 569. Springer, Cham. https://doi.org/10.1007/978-3-031-71649-2 4
- 40. Kalsi, N., Carroll, F., Minor, K., Platts, J. (2023). Smart Hospitality: Understanding the 'Green' Challenges of Hotels and How IoT-Based Sustainable Development Could be the Answer. In: Bhateja, V., Yang, XS., Ferreira, M.C., Sengar, S.S., Travieso-Gonzalez, C.M. (eds) Evolution in Computational Intelligence. FICTA 2023. Smart Innovation, Systems and Technologies, vol 370. Springer, Singapore. https://doi.org/10.1007/978-981-99-6702-5 6
- 1. Yu, S., Carroll, F., & Bentley, B. L. (2024). Trust and risk: Psybersecurity in the AI era. In Psybersecurity: Human Factors of Cyber Defence (pp. 130-155). CRC Press. https://doi.org/10.1201/9781032664859-6
- 2. Yu, S., <u>Carroll, F.</u> (2023). Securing Privacy During a World Health Emergency: Exploring How to Create a Balance Between the Need to Save the World and People's Right to Privacy. In: Hewage, C., Rahulamathavan, Y., Ratnayake, D. (eds) Data Protection in a Post-Pandemic Society. Springer, Cham. https://doi.org/10.1007/978-3-031-34006-2 5
- 3. Yu, S. & Carroll, F. (2023). A Balance of Power: Exploring the Opportunities and Challenges of Al for a Nation. In Advanced Sciences and Technologies for Security Applications. Springer.
- 4. Dashti, S., Navarro-Newball, A. A., Prakash, E., Hussain, F., & Carroll, F. (2022). Chapter 3. Digital Twin for Virtual Pottery. In A. S. Rativa, S. C. Bernal, J. M. Escobar, A. A. B. Lopez, A. A. Navarro-Newball, M. Postma, & M. V. Zaanen (Eds.), XR Academia: Research and Experiences in Virtual Reality, Augmented Reality, Mixed Reality, and Artificial Intelligence in Latin America and Europe. Open Press TiU. https://doi.org/10.26116/6wmr-t534
- Pinney, J. & Carroll, F. (2022). Designing for Interaction: Determining the Most Influential Aesthetic Factors for Effective Visualisation of Uncertainty. In: HCI International 2022, volume 4, LNCS 13305. <u>Designing for Interaction: Determining the Most Influential Aesthetic Factors for Effective Visualisation of Uncertainty | Human Interface and the Management of <u>Information: Visual and Information Design (acm.org)</u>
 </u>
- 6. Yu, S. & Carroll, F. (2022). Insights into the next generation of Policing: Understanding the impact of technology on the police force in the digital age. In Montasari, R. (ed). Artificial Intelligence and National Security. Springer.
- Pinney, J., <u>Carroll, F.</u>, Chew, Esyin. (2022). Enthusiast versus Antagonist: Exploring the perceptions of data experts on the visualisation of uncertainty. In: IHIET-AI 2022 Conference Proceedings Edited Book (5th ed. 2022, ISBN 978-1-7923-8988-7, DOI 10.54941/ahfe100931).
- 8. <u>Carroll, F.</u>, Calderon, A. & Mostafa, M. (2022). 'Ethics and the Internet of Everything: A glimpse into People's Perceptions of IoT Privacy and Security'. In Montasari, R., Bolton-King, R., Carroll. F., Mitchell, I. & Hara, S.(eds) Privacy, Security and Forensics in The Internet of Things (IoT). Springer.
- Yu, S. & <u>Carroll, F.</u> (2021) Implications of AI in National Security: Understanding the Security issues and Ethical challenges In: Montasari, R. & Jahankhani, H. (ed.s) Artificial Intelligence in Cyber Security: Impact and Implications. Security Challenges, Technical and Ethical Issues, Forensic Investigative Challenges. Springer. DOI:10.1007/978-3-030-88040-8
- Montasari, R., <u>Carroll, F.,</u> Macdonald, S., Jahankhani, H., Hosseinian-Far, A., & Daneshkhah, A. (2021). Application of Artificial Intelligence and Machine Learning in Producing Actionable Cyber Threat Intelligence. Digital Forensic Investigation of Internet of Things (IoT) Devices (pp. 47-64). Springer https://www.springer.com/gp/book/9783030604240
- 11. Montasari, R., Jahankhani, H. and <u>Carroll, F.,</u> (2021). 'Combating human trafficking: an analysis of international and domestic legislations'. In Jahankhani, H., Kendzierskyj, S. and Akhgar, B (eds.) Information Security Technologies to Control Pandemics.
- 12. Smyth, M., Benyon, D., McCall, R., O'Neill, S., and <u>Carroll, F.</u> (2015). 'Patterns of place: an integrated approach for the design and evaluation of real and virtual environments'. In Biocca, F., Freeman, J., IJsselsteijn, W., Lombard, M. and Schaevitz, R. J.

- (eds). Immersed in Media: Telepresence Theory, Measurement and Technology. New York, NY: Springer, pp.187–235.doi:10.1007/978-3-319-10190-3 9
- 13. <u>Carroll, F.;</u> Kop, R., and Thomas, N. (2015). 'From books to ebooks: a new chapter for learning'. In Open Education in Europe, eLearning papers, Occasional paper
- 14. <u>Carroll, F.</u> (2011). 'Exploring past trends and current challenges of human computer interaction (HCI) design: What does this mean for the design of virtual environments?' In B. H. Khan (Ed.), User Interface Design for Virtual Environments: Challenges and Advances. Hershey, PA: IGI Publishing.
- 15. <u>Carroll, F.</u> (2008). 'The Spatial Development of the Visual-Narrative from Prehistoric Cave Paintings to Computer Games'. In P. Turner et al. (Eds.), Exploration of Space, Technology, and Spatiality: Interdisciplinary Perspectives. UK: Springer.
- 16. Benyon D., Smyth, M., McCall, R., ONeill, S. & <u>Carroll, F.</u> (2006). 'The place probe: exploring a sense of place in real and virtual environments'. Presence Teleoperators and Virtual Environments, vol. 15(6), pp.668-687.
- 17. Turner, P. Turner, S. <u>Carroll, F.</u> (2005). 'The Tourist Gaze: Contextualising Virtual Environments'. In P Turner et al. (eds.), Spaces, Spatiality and Technology. UK: Springer.
- 18. Carroll, F., Smyth, M. & Dryden, L. (2004). 'Visual-Narrative and Virtual Reality'. In Book of Selected Readings: The International Association of Visual Literacy. IVLA, Johannesburg, South Africa. pp. 63 -73

(IV) Conference papers

International

- 19. Tomlinson, M., Carroll, F., Sengar, S. & Bentotahewa, V. (2024). DTLSN (Digital Technology Learning Support network). ICCS 2024.
- 20. Macherla, S., Zafar, M.H., Johar S., & Carroll, F. (2024). CyberHER: Addressing Gender Inequality through Digital Skills and Cultural Change in Cybersecurity. ICCS 2024.
- Yu, S., Bentley, B.L., <u>Carroll, F.</u> (2024). Enhancing Smart Home Security: A Privacy Risk Analysis Framework. In: Hewage, C., Nawaf, L., Kesswani, N. (eds) Al Applications in Cyber Security and Communication Networks. ICCS 2023. Lecture Notes in Networks and Systems, vol 1032. Springer, Singapore. https://doi.org/10.1007/978-981-97-3973-8 18
- 22. Platts, C., <u>Carroll, F.</u> (2024). Trust of Citizens?—Reasoned Distrust Might Be a Better Plan. In: Hewage, C., Nawaf, L., Kesswani, N. (eds) Al Applications in Cyber Security and Communication Networks. ICCS 2023. Lecture Notes in Networks and Systems, vol 1032. Springer, Singapore. https://doi.org/10.1007/978-981-97-3973-8 21
- 23. Mcvey, S. Chew, E. & **Carroll, F**., (2023). Educational Robotics and Dyslexia: Investigating How Reinforcement Learning in Robotics Can Be Used to Help Support Students with Dyslexia. Proceedings TEEM 2022: Tenth International Conference on Technological Ecosystems for Enhancing Multiculturality: Salamanca, Spain, October 19–21, 2022.
- 24. Kalsi, N., <u>Carroll, F.,</u> Minor, K., Platts, J. (2023) IoT in practice: Investigating the benefits and challenges of IoT adoption for the sustainability of the hospitality sector. In proceedings for the 4th International Conference on Cloud, Big Data and IoT (CBIoT 2023), 2023.
- 25. Meace, S., <u>Carroll, F.,</u> Nawaf, L., & Alghazzawi, D. (2023). Discovering the opportunities for developing cybersecurity awareness in secondary education: a comparative study, wales vs. Saudi arabia. In proceedings for the 17th annual International Conference of Education, Research and Innovation. INTED2023 Valencia 6th, 7th, 8th of March, 2023. (iated.org) https://iated.org/inted/
- Kalsi, N., <u>Carroll, F.,</u> Minor, K., Platts, J. (2023). Smart Hospitality: Understanding the 'green' challenges of hotels and how loT-based sustainable development could be the answer. 11th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2023). April 11 - 12, 2023.
- 27. Pinney, J., <u>Carroll, F.,</u> & Chew, E. (2023). Enhancing visual encodings of uncertainty through aesthetic depictions in line graph visualisations. Human-Computer-HCI-international-2023. https://2023.hci.international/
- 28. Meace, S., <u>Carroll, F.,</u> & Kop, R. (2022). Promoting Teacher Confidence With Technology Through Risk Taking and Organisational Changes: A Welsh Perspective. The Barcelona Conference on Education (BCE2022).
- 29. Dashti, S., Newball, AAN., Prakash, E., Hussain, F., & Carroll, F. (2022). Chladni Plate Visualisation September 2022 Computer Graphics & Visual Computing Conference https://cgvc.org.uk/CGVC2022/
- 30. Wheeler, R. & Carroll, F. (2022). Extended Reality (XR) Immersive Visualisation: What do AI-type project team members need to improve their understanding in a Low-Code Machine Learning Model Development Environment? Computer Graphics & Visual Computing Conference (CGVC 2022)
- 31. Lewis, R. & Carroll, F. (2022). Exact Algorithms for Finding Fixed Length Cycles in Edge-Weighted Graphs. ICCCN 2022. The 31st International Conference on Computer Communications and Networks. July 25 July 27, 2022.
- 32. Carroll, F. & Lewis, R. Internet Security Aesthetics: Can internet transparency afford social trust? (2022). ICCCN 2022. The 31st International Conference on Computer Communications and Networks. July 25 July 27, 2022.
- 33. Wheeler, R. & Carroll, F. (2022). An Explainable Al Solution: Exploring Extended Reality As A Way To Make Artificial Intelligence More Transparent And Trustworthy. In: Cyber Science 2022 conference Cardiff, Wales, 20-21 June 2022. An Explainable Al Solution: Exploring Extended Reality as a Way to Make Artificial Intelligence More Transparent and Trustworthy | SpringerLink
- 34. Pinney, J. & <u>Carroll, F.</u> (2022). Uncertainty and Risk: Investigating line graph aesthetic for enhanced cyber security awareness. In: Cyber Science 2022 conference Cardiff, Wales, 20-21 June 2022. <u>Uncertainty and Risk: Investigating Line Graph Aesthetic for Enhanced Cybersecurity Awareness | SpringerLink</u>
- 35. Adejobi, J. A., <u>Carroll, F.</u> and Montasari, R. (2021). How good are we at detecting a phishing attack? Investigating how the evolving phishing attack email effects the trust of citizens. 7th International Conference on Cyber Security and Privacy in Communication Networks (ICCS) 2021.

- 36. Carroll, F. & Faruque, R. (2021). Gender Equality: Exploring aesthetic programming as a way to increase diversity and shape inclusivity in our digital society. IEEE International Humanitarian Technology Conference 2021.
- 37. Dashti, S., Newball, AAN., Prakash, E., Hussain, F., & <u>Carroll, F.</u> (2021). Digital Twin for Virtual Pottery. In the 2nd International Conference of Immersive Technologies (XR ACADEMIA 2021). Open Press, Tilburg University, The Netherlands.
- 38. Dashti, S., Prakash, E., Hussain, F., & <u>Carroll, F.</u> (2021). Experimental Evaluation of Virtual Pottery Systems. In 2021 International Conference on Cyberworlds (CW). IEEE. (pp. 145-146).
- 39. Dashti, S., Norbert, I., Prakash, E., Hussain, F., <u>Carroll, F.</u> and Newball, A., "Creative Technologies From VR and Art Aesthetics to Form and Function," 2021 International Conference on Cyberworlds (CW), 2021, pp. 145-146, doi: 10.1109/CW52790.2021.00032.
- 40. Dashti, S. and Prakash, E., Imagineering Ceramic Pottery Using Computer Graphics, in Lee., N (ed), Encyclopedia of Computer Graphics and Games, Springer, 2021.
- 41. <u>Carroll, F.</u> & Faruque, R. (2021). Building towards a more inclusive computing learning experience: Exploring aesthetic techniques to enhance Welsh school children's engagement with programming. ALT Conference 2021.
- 42. Carroll, F. (2021). Usable Security and Aesthetics: Designing for engaging online security warnings and cautions to optimise user security whilst affording ease of use. 2021 European Symposium on Usable Security (EuroUSEC 2021).
- 43. McVey, S. M., Chew, E., & Carroll, F. (2021). The review of dyslexic humanoid robotics for reinforcement learning. In C. Busch, M. Steinicke, R. Frieß, & T. Wendler (Eds.), Proceedings of the 20th European Conference on e-Learning, ECEL 2021 (pp. 654-657). (Proceedings of the European Conference on e-Learning, ECEL). Academic Conferences and Publishing International Limited. https://doi.org/10.34190/EEL.251.132
- 44. <u>Carroll, F.</u>, & Bonkel, B. (2021). Designing for affective warnings & cautions to protect against online misinformation threats. 116-120. Paper presented at 34th British Human Computer Interaction Conference Interaction Conference, BCS HCI 2021, Virtual, Online. https://doi.org/10.14236/ewic/HCl2021.11
- 45. Adejobi, J. A., Carroll, F., Nawaf, L., & Montasari, R. (2021). Phishing, trust and human wellbeing. In 14th International Conference on ICT, Society, and Human Beings, ICT 2021, 18th International Conference on Web Based Communities and Social Media, WBC 2021 and 13th International Conference on e-Health, EH 2021 Held at the 15th Multi-Conference on Computer Science and Information Systems, MCCSIS 2021 (pp. 53-60). (14th International Conference on ICT, Society, and Human Beings, ICT 2021, 18th International Conference on Web Based Communities and Social Media, WBC 2021 and 13th International Conference on e-Health, EH 2021 Held at the 15th Multi-Conference on Computer Science and Information Systems, MCCSIS 2021). IADIS.
- 46. Sousa, M., <u>Carroll, F</u>. & Kop, R. (2021). Investigating Aesthetic Effect of Visual in Online Higher Educational Video Lecture Experience. ICDEL 2021: 23th International Conference on Digital Education and Learning.
- 47. Pinney, J., <u>Carroll, F.</u> & Newbury, P. (2020). Robots and Uncertainty: An investigation into the impact of the aesthetic visualisation on people's trust of robots. RITA 2020 conference.
- 48. Nawaf, L., Hewage, C. & <u>Carroll, F.</u> (2020). Minimization of Cyber Security Threats Caused by COVID-19 Pandemic. ICICT 2021 (Sixth International Congress on Information and Communication Technology).
- 49. Dashti, S., Prakash, E., Hussain, F., & <u>Carroll, F.</u> (2020). Virtual Pottery: Deformable Sound Shape Modelling and Fabrication. In 2020 International Conference on Cyberworlds (CW) (pp. 133-136). IEEE. ISBN: 978-1-7281-6497-7
- 50. Dashti, S., Hussain, F., Carroll, F., & Prakash, E. (2020). Scaffolds for virtual pottery: Design, 3D printing and kiln firing. In the 8th International Conference on RiTA Robot Intelligence Technology and Applications Programme RiTA2020, Three-Minutes Thesis (3MT) Competition. http://dx.doi.org/10.13140/RG.2.2.23405.10722
- 51. Dashti, S., Prakash, E., Hussain, F., & Carroll, F. (2020). Digital Pottery: Novel Information Systems and Work- ow Process for Virtual and Physical Artistic Visualizations of Sound on Ceramics. Advances in Management and Innovation, 23.
- 52. <u>Carroll, F.,</u> Webb, M. & Cropper, S. (2020). Investigating aesthetics to afford more 'felt' knowledge and 'meaningful' navigation interface designs. In: IV2020, 24 International Conference Information Visualisation (Type/Track of contribution: HCI Human-Computer Interaction for Information Visualization), Virtual conference, 7-11 September 2020.
- 53. Carroll, F., Mostafa, M. & Thorne, S. (2020). COVID-19: #Working From Home. Quite Enjoyed It. Surprised Myself.13th International Conference on ICT, Society and Human Beings 2020 (ICT 2020)
- 54. Carroll, F., Legg, P. & Bonkel, B. (2020). The Visual Design of Network Data to Enhance Cyber Security Awareness of the Everyday Internet Use. In: IEEE Int. Conf. on Cyber Situational Awareness, Data Analytics and Assessment (CyberSA), Virtual conference, 15-17 June 2020.
- 55. <u>Carroll, F.</u> & Legg, P. & Chakof, A. (2019). What makes for effective visualisation in cyber situational awareness for non-expert users? In: IEEE Int. Conf. on Cyber Situational Awareness, Data Analytics and Assessment (CyberSA), Oxford, England, 3-4 June 2019. Available from: HTTP://HDL.HANDLE.NET/10369/10540
- 56. Meace, S & Naamani, C & <u>Carroll, F.</u> (2018). Building the 'connection' between the student, their peers and the lecturer: how social media can enhance student engagement and afford informal learning opportunities. 4554-4562. 10.21125/.edulearn.2018.1135.
- 57. Carroll, F., Entwistle, A., Burrows, I., Ware, M. & Thomas, N. (2017). Smart city patterns: creating environmental stylesheets to template 'inclusivity' on Cardiff Bay Barrage. In IEEE conference 2017 International Symposium on Technology and Society (ISTAS 2017).
- 58. Carroll, F., Kop, R., Thomas, N. and Dunning, R. (2015). Transformation: An initial study into the alignment of mobile interaction and language learning. MCCSIS, Multi-conference of computer science and Information systems, 9th International Conference on e-Learning, 21 24 July 2015, Las Palmas de Gran Canaria, Spain.
- 59. <u>Carroll, F.,</u> Thomas, N. & Ware, M. (2013). The Development An Interactive Ibook Application To Harness The Next Generation Of 'Computer Architecture' Educational Experiences. In Proceedings: WORLDCOMP'13- The 9th International Conference on Frontiers in Education: Computer Science and Computer Engineering, July 22-25, 2013, USA.

- 60. Thomas, N., <u>Carroll, F.,</u> Kop, R. & Stocking, S. (2012). iBook learning experience: the challenge of teaching computer architecture to first year university students. In Proceedings: WORLDCOMP'12- The 2012 World Congress in Computer Science, Computer Engineering, and Applied Computing, July 16-19, 2012, USA.
- 61. <u>Carroll, F.</u> (2009). Aesthetic-interaction: exploring the importance of the visual aesthetic in the creation of engaging photorealistic VR environments. In Proceedings: Theory and Practice of Computer Graphics, Cardiff University, 19th June. Geneve: Eurographics Association. pp.181-188.
- 62. <u>Carroll, F.</u> & Kop, R. & Woodward, C. (2008). Sowing the seeds of learner autonomy: transforming the VLE into a third place through the use of web 2.0 tools. In ECEL-European Conference on eLearning, University of Cyprus, Cyprus, 6-7 November 2008. pp. 152-160.
- 63. Carroll, F. & Robinson, J. & Woodward, C. (2008). A New Presence-Learning Tool to Enhance the Learning Experience. In HCI workshop for Technology Enhanced Learning, John Moore University, Liverpool, 1-5 September 2008.
- 64. Woodward, C., Kop, R., & <u>Carroll, F.</u> (2007). Which side of the wall are you on? At the 14th International Conference of the Association for Learning Technology, ALT-C 2007: Beyond Control, Learning Technology for the Social Network Generation, Nottingham, UK, 4-6 September 2007.
- 65. **Carroll, F.** (2005). Engagement and Creativity in Virtual Environments. In HCl workshop, Napier University, Edinburgh, 5-9th September.
- 66. McCall, R. ONeill, S. and <u>Carroll, F.</u> (2004). Measuring presence in virtual environments. In Conference on Human-Factors in Computing: CHI 2004. Vienna, Austria: Association of Computing Machinery.
- 67. McCall, R., ONeill, S., Smyth, M., Benyon, D. & <u>Carroll, F</u>. (2004). A method for designing virtual places. In Presence 2004. Valencia, Spain.
- 68. ONeill, S. McCall, R. and <u>Carroll, F.</u> (2004). Measuring Presence in Virtual Environments (Video). Conference on Human Factors in Computing 2004: CHI2004, Vienna, Austria, CD.
- 69. Turner, P. McGregor, I. Turner, S. and <u>Carroll, F.</u> (2003). Evaluating soundscapes as a means of creating a sense of place. In Brazil, E & Shinn-Cunningham, B (Eds), ICAD, pp. 148-151. Boston University Publications Department.
- 70. Turner, S. Turner, P. <u>Carroll, F.</u> ONeill, S., Benyon, D. McCall, R. and Smyth, M. (2003). Re-creating the botanics: towards a sense of place in virtual environments. 3rd UK Conference of the Environmental Psychology Network.

National

- 71. Anantoju, D., <u>Carroll, F.</u> & Baker, A. (2022). An innovative Digital Champion: Exploring the development of a mobile app to improve Welsh health clinicians' sustainable engagement with electronic test requesting (ETR). Advances in Management and Innovation 2022 conference.
- 72. Dashti, S., Hussain, F., <u>Carroll, F.</u>, & Prakash, E. (2021): Can Virtual Pottery Become The New Norm and Replace The Ceramic Studio?. In AMI 2021 The 5th Advances in Management and Innovation Conference 2021. Cardiff Metropolitan University, 2021.https://doi.org/10.25401/Cardiffmet.14614209.v1
- 73. Chellaraj, S. & Carroll, F. (2021). Collaborative Community-based Self Expanding E-Learning Model (CCSE). Advances in Management and Innovation 2021 conference.
- 74. Silcox, S. & <u>Carroll, F.</u> (2021). Developing a more innovative 'Forex' trading application to shape new and improved trading experiences. Advances in Management and Innovation 2021 conference.
- 75. Pinney, J. <u>Carroll, F.</u> & Esyin, C. (2021) Valuable insights into the aesthetic visualisation of uncertainty in data as a means to navigating business risks and making better strategic decisions. Advances in Management and Innovation 2021 conference.
- 76. Kop, R., Woodward, C. & <u>Carroll, F.</u> (2008). Get your hands dirty: personalisation for whom? Digital learning: repurposing education, Plymouth E-learning Conference, Plymouth University, 4 April 2008.
- 77. **Carroll, F.,** Smyth, M. & Dryden, L. (2005). Investigating the Creation of Visually Engaging Experiences in Virtual Reality Environments. In Proceedings: Edesigns in Art and Design Education. University of the Arts, London.
- 78. **Carroll, F.** (2005). Developing a Visual-Narrative Model to Enhance Engagement in a Virtual Reality Environment. In Proceedings: The 19th British HCl Group Annual Conference. Napier University, Edinburgh.
- 79. Carroll, F. (2004). Image, Narrative and VR Space. In Proceedings: Spaces, Spatiality and Technology Workshop, Edinburgh, Scotland.
- 80. McCall, R. ONeill, S. <u>Carroll, F.</u> and Benyon, D. (2004). The Presence Probe. In, Workshop on Designing and Evaluating Virtual Reality Systems. University of Notthingham, UK.

(V) Selected Press, Media, and Public Engagement

- 81. Tahir, S., <u>Carroll, F.</u>, et al. (2025). https://researchfeatures.com/data-fusion-dynamics-collaborative-uk-saudi-initiative-cybersecurity-ai/
- 82. Carroll, F. (2025). Video Interview with gdh.digital, an online news agency based in Turkey (23/1/2025)
- 83. Hoss, R. & <u>Carroll, F.</u> (2025). Meta's factchecker cut has sparked controversy but the real threat is Al and neurotechnology. https://theconversation.com/metas-factchecker-cut-has-sparked-controversy-but-the-real-threat-is-ai-and-neurotechnology-247025
- 84. Zafar, M., Johar, S., & Carroll, F. (2025). CyberHER: Bridging the gender gap in cybersecurity Research Outreach
- 85. Sengar, S. & Carroll, F. (2024). Appeared in 20 India newspapers (local and state) 28-29th March 2024. Also, featured on the Raichur University Website. Artificial Intelligence and Computer Vision (AICV) Workshop Raichur University

- 86. <u>Carroll, F.</u> (2023). The vast majority of us have no idea what the padlock icon on our internet browser is and it's putting us at risk https://theconversation.com/the-vast-majority-of-us-have-no-idea-what-the-padlock-icon-on-our-internet-browser-is-and-its-putting-us-at-risk-216581
- 87. IFL Science: Most People Don't Know What The Padlock Icon On Their Internet Browser Is And It's Putting Them At Risk. https://www.iflscience.com/most-people-dont-know-what-the-padlock-icon-on-their-internet-browser-is-and-its-putting-them-at-risk-71709
- 88. Quoted by Abby Hughes, Journalist with CBA, Canada. New Yorkers treat these remote-controlled 'robot' garbage bins like people, say researchers | CBC Radio
- 89. Inclusivity, diversity, and gender equality in cybersecurity. (April 2023). <u>Inclusivity, diversity, and gender equality in cybersecurity (researchoutreach.org)</u>
- 90. Climate change: Flat Holm Island wildlife data becomes interactive. (May 2022). https://www.bbc.co.uk/news/uk-wales-61507679
- 91. Carroll, F., Pigott, J. & Taylor, A. (2022). How the scientific equivalent of impressionist paintings can make you feel data. In The Conversation. https://theconversation.com/how-the-scientific-equivalent-of-impressionist-paintings-can-make-you-feel-data-180071
- 92. Daptec Flat Holm Launch: <u>DAPTEC Project Launch | Cardiff Metropolitan University YouTube</u>
- 93. Techniquest Launches DAPTEC Flat Holm Island Exhibit <u>Techniquest Launches DAPTEC Flat Holm Island Exhibit Business</u>
 News Wales
- 94. Carroll, F. (May 2022). BBC Wales News Interview
- 95. Tornillo, G., Reed, K., Carroll,F.and Jenkins, G. (2022).Cancelled-Cancer Game. https://bit.ly/CanCELLed_EN and https://bit.ly/CanCELLed_CY
- 96. Carroll, F. And Calderon, A. (2021). Instagram kids: tech development must move from usability to safety. in the Conversation. Instagram Kids: tech development must move from usability to safety (theconversation.com)
- 97. <u>Carroll, F. (</u>2021). Fake news: Bold visual warnings needed to stop people clicking new research. In the Conversation. <u>Fake news: bold visual warnings needed to stop people clicking new research (theconversation.com)</u>
- 98. Sputnik Radio interview on the 27th May 2020 The covid-19 crisis has shown that people can conduct their jobs in a home setting' academics.
- 99. Carroll, F., Mostafa, M. & Thorne, S. (2020). Working from home: Twitter reveals why we're embracing it. In The Conversation Working from home: Twitter reveals why we're embracing it (theconversation.com)
- 100. Carroll, F. (2019). Technology for humans: prioritising human well-being in our science. In Scientists are Humans Magazine.
- 101. **Carroll, F.,** Webb, M. & Cropper, S. (2018). Our senses are lost online: investigating how aesthetics might be used to ground people in cyberspace. In IEEE Technology and Society magazine.
- 102. https://twitter.com/cmricorg/status/1272843348286586881 https://twitter.com/cmricorg/status/1272843348286586881 https://twitter.com/cmricorg/status/1272843348286586881 https://twitter.com/cmricorg/status/1272842341787807747/photo/1

G. Research Supervision and Examination

1. PhD and/ or MPhil completions

- Director of Studies (DoS) on the following PhD completions at Cardiff Met University: Joel Pinney (2019-2023);
 Sophie Meace (2019-2024); Reza Montasari (2023-2024).
- Second supervisor on the following PhD completion at Cardiff Met University: Sarah Dashti (2019-2022).
- External second supervisor on the following PhD completion at University of South Wales: **Shalini Chellara** (2016-2024).
- External second supervisor on the following MPhil completion at University of South Wales: Nick Jones (2016-2024).

2. Current PhD and Higher Research Degree Supervisions

- Director of Studies (DoS) on the following PhD projects at Cardiff Met University: Israa Bazo (2022-2027);
 Richard Wheeler (2022-2025); Nick Kalsi (2019-2027); Christantus Tabi (2021-2025); Caroline Platts (2023-2027); Matt Tomlinson (2023-2027); Parastoo Porhonar (2023-2027); Shasha Yu (2025-2026).
- Second supervisor on the following PhD projects at Cardiff Met University: Sarah-May Mcvey (2020-2024);
 Mansour Almalki (2023-2026); Jo Farag (2022-2027) and Emma Grigorian (2024-2027).

3. PhD and Higher Research Degree Examinations

Examiner for the following Higher Degrees by Research (PhD, Professional Doctorate, Master of Research):

Completed

1. Kathleen Walker, Cardiff University, 9th December 2022 (External). PhD.

- 2. Irum Feroz, Portsmouth University, 22nd March 2023 (External). PhD.
- 3. Ali Hassan, Universiti Kebangsaan Malaysia, 30th November 2023 (External). PhD.
- 4. Minghao Chen, Cardiff University, 10th January 2025 (External). PhD.
- 5. Gatlin Walker, Cardiff Met University, 17th March 2025 (Internal). Master of Research.
- 6. Sharha Sharha, Cardiff Met University, 9th April 2025 (Internal). PhD.
- 7. Rafael Hoss, Pontifical Catholic University of São Paulo, 2nd September 2025 (External). PhD
- 8. Ms Sandra Oziohu Smart-Akande, Cardiff Met University, Pending (Internal). PhD.

Chair for the following PhD examinations:

Completed

- **1.** Tanisha Thornton (11th February 2025)
- 2. Nisha Rawindaran (May 2023).
- 3. Cath Tryfona (February 2022).
- 4. Vibhushinie Bentotahewa (January 2022).

H. Reviewer and Editor Roles

- Guest editor for the Design Science Journal Design Science | Cambridge Core (2023)
- Reviewer, Harvard Kennedy School, Misinformation Review, <u>HKS Misinformation Review (harvard.edu)</u> (2022 to present).
- Reviewer, Journal of Computer Assisted Language Learning, (2016 to present).
- Reviewer, Behaviour and Information Technology Journal, (2020 to present).
- Co-editor on the book: Privacy, security and forensics in the Internet of Things (IoT). Springer. https://eprints.mdx.ac.uk/34863 / (2022)
- Reviewer, On The Horizon, (2021).
- Reviewer, Space, Spatiality & Technologies Workshop papers, Napier Edinburgh University, Scotland of (2003 & 2004).

I. Visiting Researcher

I have been a visiting researcher on seven occasions:

- Research visitor at Université Mohammed VI Polytechnique, Morocco (23-26th July 2025)
- Research visitor at Nantes University, France (July 2024)
- Research visitor at Raichur University, India (March 2024)
- Adjunct professor & research visitor at VIT, Vellore Institute of Technology, Chennai (March and April 2023)
- Research visitor at King Abdul Aziz University, Saudi Arabia (November 2022)
- Research visitor at Maynooth University, Ireland (September 2022)
- Research visitor at University of Victoria, Canada (July and August 2022)
- Research visitor at Melbourne University, Australia (June to October 2017)

Taith (2023): Two of my PhD students Sophie Meace and Israa Bazo were awarded Taith Funding to undertake an international learning exchange programme in 2023. Sophie Meace visited University of Victoria, Canada (October 2023) and Israa Bazo visited Birla Institute of Technology and Science, Pilani, Dubai (July 2023).

J. Awards and Recognition

The following is a list of awards and nominations since 2013:

External

National Teaching Fellowship Scheme (NTFS) Award, 2024.

• Welsh Crucible, Award Winning Leadership Development Programme for Future Research Leaders 2019.

<u>Internal</u>

- Winner of CST Living the Value Award: Role Model for Accountability, 2023
- Winner of SMPT Research & Innovation Award, CST, 2023
- Chosen for the University of South Wales Women in Leadership development program for Future Women Leaders in University, September 2016 to June 2017.
- Winner of the Excellence in Learning, Teaching and Assessment Award for Excellence in Research-Informed Learning and Teaching at the University of South Wales (USW), 2013.
- Shortlisted for several CMet awards including Outstanding Supervisor of the Year and Exceptional Supervisory Team of the Year at Cardiff Met University, 2019-2024
- Shortlisted for CST Lecturer of the Year, Cardiff Met University, 2021.

K. Teaching Expertise

1. Teaching Portfolio (2009 to Present)

Since joining Cardiff Met University in 2018, I have taught on the following modules:

- Module Leader: Professional and Ethics in IT (Level 6) (2018-2024); Technology Project Management (Level 7) (2021-2022); Design Thinking (Level 4) (2021-2022); Mobile & Web Technologies (Level 5) (2021-2022); Computing for society (Level 4) (2018).
- Module Lecturer: Networks and Communications (Level 5) (2019-2020); Social Media and Analytics (Level 7) (2020); Building for the web (Level 4) (2019).

In previous roles, I have led and taught on the following modules:

- University of the West of England (2017 to 2018): **Module Leader:** Experience Design (Year 2), Design Thinking (Year 1) and **Module Lecturer:** Interaction Design (Year 3)
- University of South Wales (2009 to 2017): Module Leader: IT Service Management (Year 2 & 3) and Module Lecturer: Applied Computing Networks (Year 2), Multimedia Development (Year 2), Information Resource Engineering (Year 1), Web Design and Development (Year 1), Computer Systems and Internet Technology (Year 1).

L. Professional Fellowships, Memberships and Certifications

- Senior Fellow of the Higher Education Academy, UK (awarded 2024).
- Full member of the Sigma Xi, The Scientific Research Honor Society (2024 to present)
- Leadership Bootcamp 2022 / 2023 certificate, Staff Development Pathway, Cardiff Met University (2023)
- IEEE senior member: The world's largest technical professional organization for the advancement of technology (member since 2018, senior member since 2023).
- Member of the IEEE Professional Communication Society (ProComm) (2023)
- CISCO student level credential certification, CCNA Cybersecurity Operations, Open University, UK (2020).
- ITIL expert certification (BCS): Chartered Institute of IT Institute of Leadership & Management (2016).
- Award in Mentoring from the Institute of Leadership & Management, Level 3 certification (2015).
- CISCO instructor certification (CISCO CCNA 1-4 courses/exams) from the University of Wales Trinity St. David (2013-2015).
- Fellow of the Higher Education Academy, United Kingdom (since 2013).

M. National and International Industrial and Academic Collaborators

Over my career, I have built connections with various national and international partners from industry, the public sector, and academia. The following is a list of recent collaborators.

• I have recently collaborated with the following industry and public sector partners: Dr Parisa Eslambolchilar, CGI, UK; Kristi E.S. Bauerly, Apple Inc., USA; Paul Newbury, Yard Itd., UK; Natalie Taylor, Cardiff Council, UK; Luke Maggs, Natural Resource Wales, UK; and Gareth Morlais, Welsh Government, Wales.

I have recently co-authored papers and/ or collaborated with the following academic partners: Dr. Radhika Selvamani, Vellore Institute of Technology, India (Computer Science); Professor Vishanth Weerakkody, Bradford University (Computer Science); Dr. Andy Newton, Nottingham Trent University (Computer Science); Dr. Kai Xu, Middlesex university (Computer Science); Dr. Sowmya Somanath, University of Victoria, Canada (Computer Science); Dr Phil Legg, University of West of England, England (Computer Science); Dr Simon Cropper and Dr Maggie Webb, Melbourne University, Australia (Psychology); Dr Rita Kopp, Yorkville University, Canada (Education).

N. Selected Research and Professional Activities

I. Consultancy, Invited Speaker, Presenter, Trainer, and Reviewer

- Keynote Speaker, Future of Transport: Secure and Sustainable Solutions through Edge AI, 16th September 2025, Clayton Hotel, Cardiff.
- Invited Speaker, Cyberfirst Ambassador talk for Year 9 Hopes and Dreams STEM Event, Brynteg School, 15th January 2025
- Invited Speaker, Stem Ambassador talk for School Technicians, See-Science, 3rd December 2024
- Invited Speaker, Women in STEMM: Promoting Equality, Cardiff University, 25th November 2024
- Invited Workshop Presenter, Civic Mission Symposium, Universities Wales, 21st November 2024
- Invited Speaker, Cardiff Met University: Ingenuity: Lightning Talks, 2nd July 2024
- Invited Speaker, Cardiff Met University: Festival of Learning event, 27th June 2024
- Invited Speaker, Data Fusion Dynamics: A Collaborative UK-Saudi Initiative in Cybersecurity and Artificial Intelligence (British Council), 24th June 2024
- Invited Speaker, CyberHER symposium with Pakistan (British Council), 15th May 2024
- Keynote Speaker, IRCCTSD'24 International conference, Chennai, India, 10th May 2024
- Keynote Speaker, ICSEAT International conference, Bahrain, 8th May 2024
- Invited Speaker, CYTREC Seminar Cyber Security Awareness, Swansea University, 29th November 2023.
- Panel Member at Cyberfirst girls event, University of South Wales, Newport June 2023.
- Chair & speaker at the Creative Al Research Conference 2023, (28th June 2023). https://www.uca.ac.uk/events/research/creative-ai/
- Invited speaker, Cardiff Met Doctoral Researcher Supervisor Symposium, May 12th 2023.
- Invited speaker with Vellore Institute of Technology, Chennai, Contemporary issues in Technology, 7th April 2023.
- Invited Speaker, Gwent-Glamorgan Recorders' Forum, 21st January 2023. https://www.youtube.com/playlist?list=PL5QbgfSz4RKXIL2Hjr5Rw0JlxUT2s937f
- Invited Speaker, Welsh Crucible 2023 roadshow webinar, 24/1/2023 & 26/1/2022:
- Invited Speaker, PER Project at King Abdul Aziz University, Saudi Arabia, 6th November 2022.
- Keynote Speaker, Computer Graphics & Visual Computing Conference (CGVC 2022) organised by the Eurographics UK Chapter. Leeds Trinity University.
- Invited speaker for the Cardiff Met QED Conference 2022- 'Being, belonging and becoming'. 7th 8th September 2022.
- Presenter, The 31st International Conference on Computer Communications and Networks (ICCCN 2022), July 25 - July 27, 2022, Virtual Conference.
- Invited speaker for the Creative Experiences Lab, University of Victoria, BC, Canada, 20th July 2022. <u>Dr. Fiona Carroll gives a talk on Aesthetic Interaction Understanding why we need to consider the aesthetic in the design of interactive user experiences (uvic.ca).</u>
- Invited Speaker, Cardiff Met Women to Professor group, April 2022.
- Invited Speaker, CYTREC Seminar Cyber Security Awareness, Swansea University, 22 March 2022.
- Invited Speaker, Cybercrime Conference: fake news, legislative responses, and women in cyber, Jill Dando Institute of Security and Crime Science (JDI), UCL, 21st July 2021.
- Presenter, 33rd British Human-Computer Interaction conference, 19-20 July 2021.
- Invited Speaker, Cara Syria Programme, E-learn Soiree Series on 'Technology is Reshaping how we Research', 4th February 2021.
- Invited chair for the 8th IEEE International Conference on Robot Intelligence Technology and Applications (RiTA), (virtual), 11th– 13th December, 2020.
- Presenter, 24th International Conference Information Visualisation (IV), September 2020.
- Invited chair for the International Conference on ICT, Society and Human Beings 2020 (part of the 14th Multi Conference on Computer Science and Information Systems 2020): Tuesday, 21st July 2020, Actions for reaching the Good Information Society.
- Presenter, ICT, Society, and Human Beings 2020, 14th Multi Conference on Computer Science and Information Systems, 21st – 25th July 2020.
- Presenter, the Cyber Science 2020 conference (virtual) June 15th & 17th 2020.

- Invited speaker, Department of Computer Science and Creative Technologies, University of the West of England, Bristol, October 2019.
- Presenter, the Cyber Science 2019 conference at Oxford University June 2th & 3rd 2019.
- Presenter, the ALT 2018 conference (presented by Sophie Meace).
- Presenter, the IEEE 2017 International Symposium on Technology and Society (ISTAS 2017): From good ideas to practical solutions in Sydney, Australia, 9 11 August 2017.
- Software Alliance Wales (SAW) trainer, Using Moodle in Small Business Enterprises (SME's), University of South Wales, 2013.
- Software Alliance Wales (SAW) trainer, iBook development, University of South Wales, 2013.
- Presenter, the 9th International Conference on e-Learning MCCSIS, Multi-conference of computer science and Information systems in Las Palmas de Gran Canaria, Spain, 21 – 24 July 2015
- Presenter, the 9th International Conference on Frontiers in Education: Computer Science and Computer Engineering, USA. July 22-25, 2013.
- Presenter, the 27th Theory and Practice of Computer Graphics conference at Cardiff University, 19th June 2009.
- Presenter, the 22nd British HCl Group annual conference at John Moore's university, Liverpool, September 2008
- Presenter, Plymouth e-Learning Conference, Plymouth University, 4th April 2008
- Presenter, Shock of the Old 7 Conference: Web 2.0 and the Connected Future, University of Oxford, 3rd April, 2008
- Invited speaker, the Modern Languages Workshop at the Open University, Cardiff, August 2007
- Invited trainer of Web 2 and multimedia technologies to SMEs (Community Education centres in Porth, Banwen and Glynneath) in South Wales, TRIO project, 2006-2008.
- Consulting with Swansea University lecturers and tutors to develop engaging online materials and learning objects, TRIO project, 2006-2008.
- Invited Trainer of digital narrative development for asylum seekers, refugees and legal immigrants to Swansea, The Swansea Learning Partnership Project, 2006-2008.
- Consulting with Swansea University tutors in how to use MP3 players to enhance learning, The Swansea Learning Partnership Project, 2006-2008.
- Presenter, the Lie of the Land: Scottish Landscape and Culture conference, University of Stirling, Scotland, July 2006
- Presenter, the 19th British HCl Group annual conference at Napier University, Edinburgh, September 2005
- Presenter, the E-designs in Art and Design Education conference, London, September 2005
- Invited demonstrator, CEBIT, Digital Business Trade Fair, Germany, March 2005
- Presenter, the International Visual Literacy Association (IVLA) conference, South Africa, October 2004
- Presenter, the International Community for Auditory Display (ICAD) conference, Boston, July 2003

II. Selected Management Roles:

- STEM Ambassador, See-Science Wales. https://www.see-science.co.uk/ (2023 to present).
- Adjunct Professor, VIT, Vellore Institute of Technology, Chennai (16/11/2022 -16/11/2025)
- CST Ethics Committee chair, Cardiff Met University, May 2022 to present.
- Standing Panel Academic Member, for the validation of the Cardiff Met courses (2022 to 2025).
- Award External Examiner for the School of Creative Technologies, University of Portsmouth (01/04/22 to 30/09/24).
- Subject External Examiner for the University of Portsmouth (01/09/20 to 30/09/24).
- Programme Director for 'Computing with Creative Design' and 'Computing for Interaction' degree programmes, School of Technologies, Cardiff Met University (2019 to 2022)
- Director of the Creative Computing Research Centre (CCRC), School of Technologies, Cardiff Met University (2019/20 to Present)
- Coordinator, Athena Swan application (Bronze) for the School of Technologies, Cardiff Met University (2019-2022).
- Policy Analyst at the Global Foundation for Cyber Studies and Research, http://www.gfcyber.org (2021 to present).
- Welsh CyberFirst Ambassador. https://www.ncsc.gov.uk/cyberfirst/overview (2020 to present)
- Coordinator, Athena Swan application (Bronze) for the Department of Computer science and creative technologies, University of the West of England, England (2017-2018).
- Coordinator, the Athena Swan application (Bronze) for the School of Computing and Maths, University South Wales, Wales (2016-2017).
- Founder and manager, Digital Learning Group, School of Computing and Maths, University of South Wales (2017)
- Founder and manager, 'Women in Computing' interest group at University of South Wales (2017)

III. Selected Administrative Roles:

- Critical friend for a MSc programme, Al and Statistical Analytics, Cardiff University (2025)
- Organiser of the 'Language-ism: Exploring the sustainability of languages through technology, education and creativity' online conference 24th January 2025.
- IEEE Technical Program Committee member www.globconpt.org | IEEE GlobConPT Home (2023 to present)
- Program Committee member for the International Computer Graphics & Visual Computing Conference (CGVC), 2022 & 2023.
- External Ethics member for Cardiff School of Education & Social Policy (2023-present).
- Publication Chair for 11th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2023), April 11 - 12, 2023 <u>Welcome to FICTA 2023 - Program</u>
- Publication & Technical Chair for 8th International Conference on Cyber Security, Privacy in Communication Networks (ICCS) 2022, December 12th &13th 2023. <u>Springer 8th International Conference on Cyber Security</u> and Privacy in Communication Networks (ICCS) 2022 (iaasse.org)
- Organising Committee chair for Cyber Science 2022. Organising Committee Cyber Science 2022 (c-mric.org)
- Academic manager for the first UK WICYS (https://www.wicys.org/) Student Chapter (2021).
- Committee member for the International Conference on Global Security, Safety & Sustainability, 2021.
- Programme Chair for the international conference in Robot Intelligence Technology and Applications, 2020.
- Member of academic group, University Digital Accessibility Project, Cardiff Met University (June 2020 to present).
- Member, School Research Committee, School of Technologies, Cardiff Met University (2019 to present).
- Member of Personal Tutoring and Learning Analytics Steering Group, Cardiff Met University (August 2020 to present).
- Member of IEEE P7010 Working Group (2019), working to develop wellbeing metrics relating to human factors directly affected by intelligent and autonomous systems.
- Widening participation representative, Department of Computer Science and Creative Technologies at the University of West of England (2018).
- Mentor of three early career academics, Women in University Mentoring Scheme (2016-2017)
- Coordinator of TRIO taster sessions, Swansea University, Wales (2007-2008)
- Designer of TRIO promotion material, Swansea University, Wales (2007-2008)
- Coordinator of the Benogo Workshops, Napier Edinburgh University, Scotland (2004 & 2005)
- Organiser of the Space, Spatiality & Technologies Workshops, Napier Edinburgh University, Scotland of (2003 & 2004).

O. Personal Interests and Achievements

- 1. Member of the Bridgend Senior Swim Squad and Sker & Pink Bay Lifeguards.
 - Bronze medal: Welsh Surf Lifesaving competition, Jan 2020
 - Bonze medal: GB Surf Lifesaving competition, April, 2022
 - Bronze medal: Welsh Surf Lifesaving competition, Jan 2023
- 2. Member of the Porthcawl Judo club.
 - Black Belt award, Nov. 2024
- 3. Local Authority primary school governor for Ysgol Y Ferch O'r Sger (2013 to 2021).