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1 Personal details

Summary I am an interdisciplinary researcher with a background in innovation and leadership.[1,2] My skills include system design, quantitative and qualitative analysis, and computer programming.

Education

- PhD, Computing, The Open University. 2014.
- BA (Hons), Mathematics, New College of Florida. 2002.

Positions

Open Research Project Manager, Oxford Brookes (since 1/2023)
Director, Hyperreal Enterprises, Ltd. (since 6/2019)

Experience Research Fellow, Institute for Ethical AI, Oxford Brookes (10/2020-12/2022)
Associate Lecturer, Engineering, Computing and Mathematics, Oxford Brookes (2021-2022)
Hourly Paid Lecturer, Department of Digital Humanities, King's College London (2021-2022)
Attended Entrepreneur First, a selective deep tech incubator programme (2020)
Software Engineer (Clojure), Open Markets, developing a healthcare equipment marketplace (2019)
Research Associate, "MathSoMac", School of Informatics, University of Edinburgh (2016-2019)
Research Associate, "COINVENT", Computing, Goldsmiths, University of London (2014-2016)
Research Assistant, "DECIPHER", Knowledge Media Institute, The Open University (2013)
Editor in the Peeragogy Project, shaping a new learning paradigm (since 2012)
Member of the Board of Directors of PlanetMath.org, which developed an early commons-based peer production platform to build a a free/open online encyclopedia of mathematics (2005-2014)

2 How have you contributed to the generation of knowledge?

Media scholar Howard Rheingold created a neologism to describe my doctoral research on "peer produced peer learning", i.e., *peeragogy*.[3,4] There are presently around 11,000 hits for that term on Google. My subsequent research focuses on various aspects of collaborative knowledge production. I am currently applying my meta-research and project management skills in a large consortium project which aims to improve research practice across the sector. Presently my work at Brookes is divided between outward-facing contributions to the consortium, institution-facing work related to open research (such as development of an Open Research Action Plan for Brookes), and ongoing self-directed research and collaborative grant development. My current grant development work focuses on applied AI and Computer-Supported Cooperative Work. I recieved favourable reviews on a 'timely' £1.8m EPSRC proposal for an "An AI Assistant for Mathematics", though we await the final funding decision. I also do a small amount of private consulting with a focus on building citizen science projects. This work has been synergetic with my university research and research-support work, and has resulted in impactful publications outlining innovations in collaborative methods.[5,6]

[1] h-index = 18: https://scholar.google.com/citations?user=A9YEB5YAAAAJ; https://orcid.org/0000-0003-1330-4698.
[2] 100% Open Access; top 41% by global reach: https://profiles.impactstory.org/u/0000-0003-1330-4698/achievements
[3] http://oro.open.ac.uk/40775/
[4] https://clalliance.org/blog/toward-peeragogy/
[5] Corneli J., et al. (2022). Patterns of Patterns: A Methodological Reflection on the Future of Design Pattern Methods. In S. Inayatullah, R. Mercer, I. Milojević, & J. A. Sweeney (Eds.), CLA 3.0: Thirty Years of Transformative Research. Retrieved from https://arxiv.org/abs/2107.10497
[6] Corneli J., et al. (2023). Patterns of Patterns II: Discourse on Implementation, https://arxiv.org/abs/2306.08426

3 How have you contributed to the development of individuals? As the Director of Hyperreal Enterprises, I've brought together a transdisciplinary research network for peer learning, co-coaching, and paid contract work.[7] Our approach to collaboration focuses on the well-being of contributors, and combines skills from across disciplines with an ethos of "light creative work". In the Peeragogy project, I've facilitated dialogue and collaboration amongst researchers, entrepreneurs, educators, and innovators from around the globe.[8,9] I have supervised Master's theses in informatics, data science, and Digital Humanities, as well as two Google Summer of Code interns. At the University of Edinburgh, I helped develop a new course, Data Science for Design, which taught applied research skills to Master's students, who deployed them real-world problem found via in-house "data fairs".[10] Master's students gained capacities to carry out data-centric research projects.[11] I am presently working with the AIDAN network to develop a similar programme at Brookes, to be piloted as a "Data Challenge Week" in Autumn 2023.

4 How have you contributed to the wider research community? In the "Growing and Embedding Open Research in Institutional Practice and Culture" project, my contribution focuses on the KPI to train 180 new open research trainers across the sector, using a "train the trainer" model. I am specifically responsible for evaluation of this training, and have proposed an "open research" paradigm for achieving this.[12] I previously organised research events on transdisciplinarity, creativity, and meta-research, e.g., "Enabling Mathematical Culture" at Oxford University,[13] and "Cybernetic Serendipity Reimagined" in connection with AISB 2018,[14] and am presently helping to organise the 2023 OXBER Autumn School that is being developed as part of the Oxford Berlin Research Partnership.

5 How have you contributed to broader society? Peeragogy and it's predecessor, paragogy, are impactful theories of learning which have had a particularly strong reception in the Global South. My consultancy Hyperreal Enterprises has been building on learning from the Peeragogy Project to develop new processes and tools for multi-stakeholder collaboration and community-driven research. Our initial application was to urban health, working with a client at the University of the West of England.

6 Personal statement To bring about change at the level and scale required in this critical time in human history will require far-reaching transdisciplinary inquiry and innovation in the processes of learning and adaptation. Technology is always only one part of the problem. New practices are needed to use technology effectively, and the institutions that shape these practices need to be understood and transformed.

7 Additions After completing my undergraduate degree, I enrolled in the mathematics department at the University of Texas in Austin for postgraduate study (2002-2004), but did not find the programme a good fit for my hands-on approach to learning. I left to pursue independent research in collaboration with the PlanetMath project (2005-2009). During the COVID-19 pandemic, I took a break from university research to work as a programmer (2019) and to a participate in an entrepreneurship training programme (2020). This helped to round out my portfolio of skills. During my subsequent Research Fellowship (2020-2022), I focused on a small quantity of high-quality publications and other outputs, intending to scaffold an ambitious programme of open research, with an exploitable open source software corollary.

[7] https://hyperreal.enterprises
[8] https://groups.google.com/g/peeragogy?pli=1
[9] https://piercepress.com/peeragogy-in-action
[10] https://datafairs.github.io/
[11] http://www.drps.ed.ac.uk/17-18/dpt/cxdesi11100.htm
[12] https://www.octopus.ac/publications/4hbm-3k26
[13] https://enablingmaths.wordpress.com/
[14] http://aisb2018.csc.liv.ac.uk/