



Quarterly Review of Research

January 2023

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Section 1: Introduction from the Director, Graduate School



I am delighted to introduce this edition of the Quarterly Review of Research. This Review has a focus on a key element of the [OU Research Plan](#) which aims to support our diverse researchers to thrive, particularly those who are early career researchers.

UKRI [published its annual EDI data](#) in

December. It is clear, from their report as

well as others, that access to, and progression in, research careers are differentially experienced depending on individual characteristics of researchers. Key data relating to the national research community include:

- Only [41 of the 22,000 professors](#) in the UK are Black British women;
- UKRI's [latest diversity data report](#) shows that the successful award rate for PIs on projects funded by UKRI was lowest for 'Black and Minority Ethnic' researchers, for women and for researchers with a declared disability. The award rates for these groups were lower than expected in comparison to the academic population overall (noting that language such as 'Black and Minority Ethnic' 'Black, Asian and Minority Ethnic' is contested and debated);

- There are low levels of representation of women, Black and Minority Ethnic and disabled students in those funded for PhD study through UKRI/Research Council Doctoral Training Programmes;
- An [OECD report](#) (2021) notes that reliance on short term fixed contracts presents a significant challenge for academic research, which depends on the long-term commitment and motivation of talented individuals. According to the [UCU report on Precarious work in higher education](#), in the UK 68% of staff on 'research only' contracts are on fixed term contracts, with a disproportionate number of women and Black and Minority Ethnic researchers.

The University's Research Plan will explore and address issues for the development of a diverse group of researchers. The intention is to support all researchers but to focus particularly on the 'Next Generation' ie early career researchers. Further information about the planned activities are in [Section 6](#) of this Review.

Lindsay O'Dell

Director, Graduate School

Section 2: Faculty Reviews

Faculty of Arts and Social Sciences

Arts and Humanities

[NATO and the Strategic Defence Initiative: A Transatlantic History of the Star Wars Programme](#)

Brunet, Luc-Andre ed. (2022). Cold War History. Abingdon: Routledge.

This book explores the largely neglected issue of responses to the US Strategic Defence Initiative (SDI, or the 'Star Wars' missile defence programme) across NATO. The chapters here explore the reactions of different Western allies to the announcement of the SDI in 1983 and especially the 1985 invitation to participate. While existing studies have explored the origins of the American programme and the role it may have played in ending the Cold War, this volume breaks new ground by considering the impact of the SDI on transatlantic relations in the 1980s. Based on newly available archival sources, this volume re-evaluates the responses of eight NATO member-state governments, as well as the Soviet leadership, to the SDI. In addition to looking at 'top-down' governmental reactions, the volume also explores the 'bottom-up' response to the SDI of civil society and peace activists on both sides of the Atlantic. The volume examines how the American initiative – derisively named 'Star Wars' by its detractors – provoked a crisis in relations with its allies during the final decade of the Cold War and how those tensions within NATO were

ultimately resolved. This book will be of much interest to students of Cold War history, strategic studies, foreign policy and international history.

["Is your baby getting enough music?" Musical interventions into gestational labor](#)

Drott, Eric and Thompson, Marie (2022). *Women and Music: a Journal of Gender and Culture*, 26: 125-147.

Music has often been figured as an ideal accompaniment to social reproduction. Arts institutions, advertisers, media companies, and streaming services have sought to emphasize music's reproductive utility: its purported capacity to help listeners to take care of themselves and others; enhance sociality and subjectification; and improve health and wellbeing. Music's reproductive utility has also been articulated in relation to pregnancy and childrearing. In this article, we distinguish between two types of musical interventions into pregnancy and gestational labor. On the one hand, music has been figured as a reproductive technology that can "improve" both future mother and future child. We take A Sound Beginning, a music-based family bonding subscription service, as exemplary of this tendency: through a personalized "Womb Song," the program promises to help parents-to-be to "raise a calm, loving child." On the other hand, music has been figured as a social service that can support disadvantaged future mothers and their children. Here, we critically examine Carnegie Hall's Lullaby Project, which engages new mothers and mothers-to-be to co-compose lullabies for their babies. Noting the coherences and differences between A Sound Beginning and the Lullaby Project, we situate these interventions in relation to the post-Fordist

organization of social reproduction; racial histories of pregnancy and maternity; and the cultural economy of music. In so doing, we hope to provide an alternative perspective on music and pregnancy's imbrication with capitalist social relations.

[Music in Nineteenth Century Britain](#)

Golding, Rosemary ed. (2022). UK: Routledge.

This set of four volumes draws together extended material from across the topics of music in Britain in the long nineteenth century, particularly focussing on documents not readily accessible or not commonly quoted in the literature. Together they form an important resource for students and scholars of music and culture. The general introduction explores the state of research into music in nineteenth-century Britain from a historiographical perspective, as well as an assessment of the most pressing themes for the immediate future of the discipline. Introductions to each thematic section briefly review the relevant literature and the most important points of concern, while a short preface to each document points out particular points of note, context, and explanations of any unusual phrases. Each sub-topic includes four or five documents drawn from newspapers, journals, pamphlets and, where possible, archival material. Documents will span the full length of the nineteenth century and a significant number will be drawn from the writings of Scottish, Welsh and Irish authors.

[Political Catchphrases and Contemporary History: A Critique of New Normals](#)

Gupta, Suman (2022). Oxford: Oxford University Press.

Offers extensive discussion of contemporary catchphrases like 'new normal' and 'we are the 99%' and catchwords like 'resilience' and 'austerity'. Presents a history of, roughly, the period 2001–2020, with a focus on important junctures such as 9/11, the 2002 dot-com crash, the 2007–2008 financial crisis, the Occupy movement of 2011–2012 and other subsequent mass protests, and the Covid-19 outbreak. Covers issues of the moment such as austerity policies and protests, marketization and neoliberalism, flexible working, online education, climate change, populism and political polarization, mass protests, and pandemic responses and restrictions. Proposes a distinctive approach to contemporary history and a theory of political catchphrases

[Telephone Networks and Transactional Motherhood in Channel 4's It's A Sin](#)

Harrison, Rebecca (2022). *European Journal of Cultural Studies* (Early access).

This article offers an analysis of women's representation in the 2021 Channel 4 series *It's A Sin*. Focusing on the show's narrative and ideological use of the telephone network as a system of transactional care, the article critiques depictions of motherhood and questions the erasure of narratives about experiences of gender, race, sexuality, class and disability in queer communities. By way of textual analysis and histories of communication technologies in the 1980s and 90s, the article argues that *It's A Sin* perpetuates conservative and moralising perspectives on a range of issues, particularly with regard to gender and sex.

[A History of Welsh Music](#)

Herbert, Trevor; Clarke, Martin V. and Barlow, Helen eds. (2022). Cambridge: Cambridge University Press.

From early medieval bards to the bands of the 'Cool Cymru' era, this book looks at Welsh musical practices and traditions, the forces that have influenced and directed them, and the ways in which the idea of Wales as a 'musical nation' has been formed and embedded in popular consciousness in Wales and beyond. Beginning with early medieval descriptions of musical life in Wales, the book provides both an overarching study of Welsh music history and detailed consideration of the ideas, beliefs, practices and institutions that shaped it. Topics include the eisteddfod, the church and the chapel, the influence of the Welsh language and Welsh cultural traditions, the scholarship of the Celtic Revival and the folk song movement, the impacts of industrialization and digitization, and exposure to broader trends in popular culture, including commercial popular music and sport.

[A suitable distance? Revisiting a millennial approach to curating art in the Caribbean](#)

Wainwright, Leon (2022). *Art Journal*, 81(3) pp. 39-52.

In the autumn of 2006, Soft Box Studios, a small, privately run art gallery in Port of Spain, Trinidad, staged the exhibition *A Suitable Distance*, comprising twenty-one paintings by artists who were at that time living on the island yet who hailed from elsewhere. Curated by Andy Jacob, a teacher and former deputy curator of Trinidad and Tobago's National Museum and Art Gallery, the five featured

artists were Kofi Kayiga (b. 1943) and Roberta Stoddart (b. 1963)—who have a Jamaican background—alongside Chris Ofili (b. 1968), Rex Dixon (b. 1939), and Peter Doig (b. 1959), who are originally from the United Kingdom. Revisiting the approach taken to curating this group of foreign artists involves looking at the conditions of production and reception for this art and, more generally, for art in the Caribbean, during the first decade of the millennium. Reflecting on this period from a present-day perspective allows *A Suitable Distance* to be historicized as a millennial approach to curatorial projects that engage with both the global art world and the Caribbean’s local art world, and allows us to assess the geographical and metaphorical distances between them as well as their intersections. The conclusions encourage the continued foregrounding of critical frameworks of analysis and the problematizing of the terms of visibility and success that surround contemporary art and art communities of the Caribbean.

Psychology

[“It’s just kind of this thing that I need to navigate”: Young women’s stories of recoveries after domestic abuse in childhood](#)

Beetham, Tanya (2022). *Violence Against Women* (Early Access).

Those who experience parental domestic abuse in childhood are affected in multiple ways, but existing research uses a narrow lens, relying on psychotherapeutic and neuroscientific understandings. This article uses a dialogical theory (Hermans, 2001) to explore women’s recovery stories. Interviews were conducted with ten women in England and a voice-centred narrative analysis was used. This article attends to gendered,

psychotherapeutic, and neoliberal narrative resources that shaped participants' stories. It concludes that recoveries after domestic abuse in childhood can be considered as dynamic processes that are individual, as well as shaped by social, political, and relational contexts that shape storytelling practices.

[Child Language Brokering in Healthcare: Exploring the Intersection of Power and Age in mediation practices](#)

Iqbal, Humera and Crafter, Sarah (2022). *Journal of Child and Family Studies* (Early access).

This paper aims to explore young people's perspectives of a vignette scenario based on child language brokering in a healthcare setting (the doctor's office), when the topic of discussion is sensitive and potentially conflictual. Child Language brokers are migrant young people who translate and interpret for family members, peers and the local community. Often the spaces in which children broker (e.g. healthcare, banks), referred to here as a 'contact zone' (Pratt 1991), are dominated by adults in positions of authority and unequal power differentials. The language broker and those they are brokering for may be in a less powerful position because of their migration status and/or age status. Findings are presented from 29 individual qualitative vignette-based interviews with language brokers (aged 13–16) in the United Kingdom. The analysis highlights how young people play a vital role in protecting those for whom they broker, often navigating sophisticated social interactions in institutions of unequal power. Equally, they carry a weight of responsibility trying to manage complicated, perhaps morally questionable, situations. By asking brokers to reflect on a real-life healthcare scenario, we are advancing

understanding of migrant youth brokers and the families they support in their day to day lives.

[Digital families: Gendered relationships in online spaces.](#)

Locke, Abigail; Capdevila, Rose and Lazard, Lisa (2022). *Feminism & Psychology*, 32(3) pp. 310–317.

Engagement in digital spaces has notably been subject to negative characterisations in both academic and popular arenas. While there is now a large body of research on social media and families, little has been said about the potential for positive engagements or how these digital technological practices can support or facilitate family relationships more broadly. This paper introduces a Special Issue which sets out to consider gendered family relationships in digital spaces. These spaces, including social media, digital media, streaming services, and web pages, have increased access to family-focused content online. Drawing on critical feminist psychological perspectives that question the prioritisation of essentialist and normative conceptualisations of family and gender, this special issue examines the phenomenon of digital mothering within families.

[The Emergence Of Global Behavioral Public Policy – Developments Of And Within The Nudge Unit](#)

Neuhaus, Till and Curley, Lee (2022). *World Complexity Science Academy Journal*, 3(2).

Behavioral Public Policy is an emerging and highly attractive branch of policy-making in the 21st century. The underlying promise of this kind of policymaking is that through conscious modification of decision architectures, individuals make better decisions and, in accumulated form, societal aims are reached. This paper focuses on the key institutions regarding behavioral public policy: The Behavioral Insights Team (BIT), colloquially referred to as the Nudge Unit. In order to analyze the phenomenon at hand, this paper will illustrate the different phases, developments, and transformations of the BIT as it started in the British Prime Minister's Cabinet Office, then became an agency itself, and ultimately made the move into the free market terrain. This paper will describe how these organizational changes have influenced the BIT's structure and work. Also, this paper wants to isolate beneficial factors which made the BIT's success more likely – nationally in the United Kingdom as well as internationally. This paper will end on a critical note and outline future challenges of the BIT.

[Informing versus generating a discussion: Comparing two approaches to encouraging mitigation of soil erosion among Maasai pastoralists](#)

Rabinovich, Anna; Zhischenko, Vladimir; Nasser, Mona; Heath, Stacey C.; Laizer, Alpha; Mkilema, Francis; Patrick, Aloyce; Wynants, Maarten; Blake, William H.; Mtei, Kelvin and Ndakidemi, Patrick (2022). *Journal of Environmental Psychology*, 84, article no. 101885.

Soil erosion is a critical problem for pastoralist societies that rely on healthy grazing land for their livelihoods. Previous research suggests that unsustainable land management practice is one of the factors exacerbating soil erosion, and that willingness to adjust this practice is closely linked to community land

protection norms. The present research explores approaches to building stronger community norms and intentions linked to mitigating soil erosion among Maasai pastoralists in Northern Tanzania. In particular, we compare two impact approaches based on the information deficit model (exposure to scientific information) and the social identity framework (a group-based discussion). The results demonstrate that the information deficit approach results in stronger perceived land protection norms and, indirectly, stronger intentions, as compared to the discussion-based approach. We discuss contextual features that should be taken into account when interpreting these findings and suggest these may be key for impact approach choices.

[Putting Psychology in its Place: Critical Historical Perspectives \(Fourth Edition\)](#)

Richards, Graham and Stenner, Paul (2022). London: Routledge.

Written by esteemed Psychologists Graham Richards and Paul Stenner, this crucial text aims both to answer and raise questions about the role of psychology in modern society by critically examining issues such as how psychology developed and why psychoanalysis had such an impact. It discusses enduring underlying conceptual problems and examines how the discipline has changed to deal with contemporary social issues such as religion, race, and gender. The fourth edition features revised and updated chapters, though the core structure remains unchanged. The final chapter has been restructured and jointly re-written. The text is written in an imaginative style that is accessible to all.

Social Sciences and Global Studies

[Catalyzing transformative futures in food and farming for global sustainability](#)

Bhagwat, Shonil (2022). *Frontiers in Sustainable Food Systems*, 6, article no. 1009020.

This perspective article highlights the need for transformation in food and farming at three scales to promote a food system that meets UN Sustainable Development Goals. Food insecurity is still a persistent problem globally because of how food and farming sector is currently organized vs. how it should be organized if cultural traditions, environmental concerns, and nutritional needs of the world's growing population were foregrounded. The article argues that system-wide transformations are needed at different scales: landscape (macro), species (meso) and genes (micro). It suggests alternatives available for food and farming sector and identifies transformative pathways that are more sustainable in cultural, social and environmental terms. A better management of farming landscapes; diversification of the food system to include a wider range of species; and better use of neglected and underutilized species, varieties and cultivars of plants, and breeds of animals in the food system can help to catalyze such a transformation. This can go a long way in promoting global sustainability by achieving three key UN Sustainable Development Goals 2 (Zero Hunger), 3 (Good Health and Wellbeing) and 15 (Life on Land).

[Afghanistan 2021: US Withdrawal, the Taliban return and regional geopolitics](#)

Boni, Filippo (2022). *Asia Maior*, XXXII pp. 375–391.

Afghanistan in 2021 was characterised by the withdrawal of US troops and by the sudden fall of Kabul to the Taliban in August. After 20 years of war, and US\$ 2.3 trillion spent in the conflict, the US was eventually out of Afghanistan and the Taliban back in power. The latter's ability on the battleground did not translate in the capacity to govern the country, whose population suffered a dramatic deterioration in living conditions, also due to the freezing of assets and cuts in international aid following the Taliban takeover. Hopes that the Taliban had become a moderate force were dashed by the new cabinet announcement. Rather than being representative of the Afghan social fabric, the cabinet did not include any women and was mostly formed by Pashtuns, to the neglect of other Afghan ethnic groups. The international relations of Afghanistan under the new Islamic regime saw Pakistan, China and Russia increasing their influence, amid concerns that instability in the country could have significant repercussions on their domestic politics. Among the regional players, India is the one that has been weakened more significantly by the American exit and the return of the Taliban.

[The Political Economy of Patriarchy in the Global South](#)

Kocabıçak, Ece (2022). London: Routledge.

Recent decades have witnessed both a renewed energy in feminist activism and widespread attacks taking back hard-won rights. Despite powerful feminist movements, the Covid-19 pandemic has significantly undermined the progress

women have struggled for decades to achieve; how can this be? What explains this paradox of a strong feminist movement coexisting with stubborn patriarchal arrangements? How can we stop the next global catastrophe initiating a similar backlash? This book suggests that the limitations of social theory prevent feminist strategies from initiating transformative changes and achieving permanent gains. It investigates the impact of theoretical shortcomings upon feminist strategies by engaging with two clusters of work: ungendered accounts of capitalist development and theories on gendered oppression and inequality. Decentring feminist theorising grounded in histories and developments of the global North, the book provides an original theory of the patriarchal system by analysing changes within its forms and degrees as well as investigating the relationship between the gender, class and race-ethnicity based inequalities. Turkey offers a case that challenges assumptions and calls for rethinking major feminist categories and theories, thereby shedding light on the dynamics of social change in the global South. The timely intervention of this book is, therefore, crucial for feminist strategies going forward. The book emerges at the intersections between Gender, International Development, Political Economy, and Sociology and its main readership will be found in, but not limited to, these disciplinary fields. The material covered in this book will be of great interest to students and researchers in these areas as well as policy makers and feminist activists.

[EcoSol-agroecology networks respond to the Covid-19 crisis: building an economy of proximity in Brazil's Baixada Santista region](#)

Levidow, Les; Sansolo, Davis and Schiavinatto, Monica (2022). *The Journal of Peasant Studies*, 49(7) pp. 1409–1445.

In 2020–2021 the Covid-19 crisis worsened the harms from the hegemonic agribusiness model, while also providing opportunities for alternatives. Since long before the crisis, Latin American civil society networks had been building an agroecology-based solidarity economy (here EcoSol-agroecology for short). These networks have linked agroecological production methods with collective marketing through short food-supply chains (*circuitos curtos*), establishing closer relationships with consumers. Such initiatives have been expanded, despite adverse government policies and Covid-19 obstacles. This expansion has been widely understood as strengthening social proximities. As the analytical contribution here, EcoSol-agroecology networks build an 'economy of proximity', based on proximate purposes such as mutual aid, democratic self-management, women's leadership, food security and biodiverse resource conservation. These solidaristic purposes help to activate other proximities (geographical, organisational, institutional, and cultural), while also linking them. Collective capacities have developed those proximities in context-specific ways. This strategic perspective has informed EcoSol-agroecology networks in Brazil's Baixada Santista region, the site of grassroots voices in this case study. Diverse contributions have been integrated into a composite culture as a symbolic site of belonging. As global elites seek to restore the hegemonic

agri-food system after the Covid-19 pandemic, a different future depends on building the social proximities of EcoSol-agroecology.

[Using techniques of neutralisation to maintain contact: The experiences of loved ones supporting remand prisoners](#)

Masson, Isla and Booth, Natalie (2022). *The Howard Journal of Crime and Justice* (Early Access).

This article proposes that loved ones supporting prisoners with experience of remand in England and Wales may use Sykes & Matza's (1957) 'techniques of neutralization' by proxy. Adopting neutralisations may enable those in prison to be viewed not as those who have harmed, or bad people, but as those who themselves have been harmed. Potential benefits of these techniques are twofold: they help to reject stigma; and explain and enable continued contact. This framework may be a useful basis for work exploring familial contact and support for those affected by imprisonment.

[Streaming the festival: what is lost when cultural events go online](#)

Shipman, Alan and Vogel, Ann (2022). *Review of Social Economy* (Early access).

Cultural events and collections, as curated assemblies of artists and artwork attended by live audiences, are recognised as a large and growing source of added value in contemporary accounts of 'creative', 'enrichment' and 'experience' economies. We analyse these, and empirical festival studies, to assess the impact on cultural production when the COVID-19 pandemic forces events to cancel or move online. Contrasting the relative optimism of

'enrichment' (Boltanski & Esquerre 2020) with pre-pandemic developments, we argue 'festivalisation' is best understood as a defensive reaction to mediated alternatives. These increasingly offer experientially comparable, lower-cost substitutes for the premium-priced immersive performance on which cultural workers have come to rely, for creative ideas, skills and career openings as well as income. Online channels weaken the eventisation defence and curatorial quests for 'singularity', while remote participation limits audiences' size and mode of engagement, risking permanent damage to vital components of cultural production and valorisation.

[Income and Health in Predicting Older Adults' Social Capabilities in China: The Mediating Role of Social Engagement](#)

Zhang, Yalu; Gao, Qin; Zhai, Fuhua and Anand, Paul (2022). Social Indicators Research (Early Access).

Despite an established positive link among income, health, and social capabilities among older adults, the relationship mechanisms of these factors are understudied. Using the WHO Study on Global Ageing and Adult Health data and a capabilities approach, this paper provides new evidence on the effects of income (measured by total household income) and health (measured by physical and cognitive functioning) on the social capabilities of older adults (aged 55 or older) in China and the possible mediating role of social engagement in this relationship. Findings from the study show that both income and health showed consistent and positive effects on social capabilities of older adults in China, and the effects varied between rural and urban older adults. The mediation analysis results show that social engagement accounted for a

substantial proportion of the effects of income and health on social capabilities, but income and health still had strong, positive direct effects of their own. In particular, social engagement was found to play important mediating roles in the associations between physical and cognitive functioning and the social capabilities of freedom of expression (9.46%) and the sense of safety (36.33%) among rural older adults. Findings from this study highlight the need for more social policies and services to enhance older adults' social engagement, income, and health conditions.

Faculty of Science, Technology, Engineering and Mathematics

School of Environment, Earth and Ecosystem Sciences

[Cenozoic evolution of deep ocean temperature from clumped isotope thermometry](#)

Meckler, A. N.; Sexton, P. F.; Piasecki, A. M.; Leutert, T. J.; Marquardt, J.; Ziegler, M.; Agterhuis, T.; Lourens, L. J.; Rae, J. W. B.; Barnet, J.; Tripathi, A. and Bernasconi, S. M. (2022). *Science*, 377(6601) pp. 86–90.

Dr Phil Sexton and collaborators from five other countries conducted a high-quality analysis of deep ocean sediments to investigate past climates on Earth because they may hold important clues about how the planet might respond to ongoing climate warming. Using new techniques, the researchers reinterpreted the record of the deep ocean temperature over the past 65 million years and found that that deep ocean temperatures were both much higher, and more variable than previously believed. This is important because the implication of

the work is that our understanding of the ocean climate of the last 65 million years must be reassessed and potentially revised for us to have a better of how the ocean and global climate will change in our future world.

[Biosignature stability in space enables their use for life detection on Mars](#)

Baqué, Mickael; Backhaus, Theresa; Meeßen, Joachim; Hanke, Franziska; Böttger, Ute; Ramkissoon, Nisha; Olsson–Francis, Karen; Baumgärtner, Michael; Billi, Daniela; Cassaro, Alessia; de la Torre Noetzel, Rosa; Demets, René; Edwards, Howell; Ehrenfreund, Pascale; Elsaesser, Andreas; Foing, Bernard; Foucher, Frédéric; Huwe, Björn; Joshi, Jasmin; Kozyrovska, Natalia; Lasch, Peter; Lee, Natuschka; Leuko, Stefan; Onofri, Silvano; Ott, Sieglinde; Pacelli, Claudia; Rabbow, Elke; Rothschild, Lynn; Schulze–Makuch, Dirk; Selbmann, Laura; Serrano, Paloma; Szewzyk, Ulrich; Verseux, Cyprien; Wagner, Dirk; Westall, Frances; Zucconi, Laura and de Vera, Jean–Pierre P. (2022). *Science Advances*, 8(36)

Dr Nisha Ramkissoon and Professor Karen Olsson–Francis of AstrobiologyOU were members of a 37–person international team conducting research on the detection of life. There are two rover missions on Mars that aim to detect biomolecules as a sign of extinct or extant life. However to be confident in the measurements from the rovers, the sensors deployed on them must be proved to be able to work under Martian conditions. To do this the researchers exposed biomolecules to a simulated Martian environment outside the International Space Station for 469 days, and they proved that biomolecules are detectable under simulated Martian conditions. Overall the findings provide support for Mars mission operations searching for biosignatures in the subsurface by demonstrating the detectability of biomolecules by Raman spectroscopy.

School of Computing and Communications

[Security Responses in Software Development](#)

Lopez, Tamara; Sharp, Helen; Thein, Tun; Bandara, Arosha; Levine, Mark and Nuseibeh, Bashar (2022). ACM Transactions on Software Engineering and Methodology (Early Access).

This paper is a key achievement of the [Motivating Jenny](#) project, funded by the National Cyber Security Centre and led by Professor Helen Sharp in the School of Computing and Communications. An ethnographic account, the article details the complex security climate in which commercial software is produced.

Findings show that decisions that have an impact on security within code are not always made by developers and their teams but instead reflect the attitudes and priorities of companies and their clients. This influence has an effect on how developers engage with security in practice. The paper documents a range of behaviours software developers employ to maintain security alongside production, providing an empirical baseline that managers and teams can use to understand and alter security activity in their own environments. Conducted with the support of two industry collaborators in the UK, findings from this work have informed developer-centred security policy of the National Cyber Security Centre, formed the basis of a toolkit of materials for practitioners, and led to outreach activities at the British Computer Society.

[Assessing the quantum-computing landscape](#)

Deshpande, Advait (2022). *Communications of the ACM*, 65(10) pp. 57–65.

This paper examines the quantum technology landscape to understand the market readiness of quantum computing technologies and the reported levels of investment in them. Advait Deshpande considers the role of ‘big tech’ companies, the start-up ecosystem, and funding by nation states to identify key implications for the future of quantum computing developments. The paper highlights that although many of quantum computing’s promised capabilities could be revolutionary, the realisation of this promise requires breakthroughs in several areas, including improvements in the quality of qubits, error correction, and a demonstrable set of practical applications. Prior to the widespread commercial availability of universal quantum computing, a hybrid computing approach is likely to prevail, one which draws on classical computers and advancements in quantum-computing hardware and software.

School of Life, Health and Chemical Sciences

[Ten simple rules for leveraging virtual interaction to build higher-level learning into bioinformatics short courses](#)

Bacon, Wendi; Holinski, Alexandra; Pujol, Marina; Wilmott, Meredith and Morgan, Sarah L (2022). *PLOS Computational Biology*, 18(7), article no. e1010220.

As the Coronavirus COVID-19 crisis emerged and took hold conventional higher education establishments had to rapidly transition their teaching into an online world. This creates many additional challenges and unique problems for some subjects, and trainers and educators used to classroom interaction can find

creating interaction in virtual situations challenging. In this paper Dr Bacon worked with colleagues at the European Molecular Biology Laboratory to leverage and share their expertise on teaching bioinformatics in mixed online environment. They offered ten relatively simple rules based on Open University expertise and extensive experience teaching bioinformatics to help colleagues across the sector in their jump to successful online teaching.

[Oligomeric Curing Activators Enable Conventional Sulfur-Vulcanized Rubbers to Self-Heal](#)

Wemyss, Alan M.; Marathianos, Arkadios; Heeley, Ellen; Ekeocha, James; Morishita, Yoshihiro; di Ronza, Raffaele; Bernal, M. Mar; Haddleton, David M. and Wan, Chaoying (2022). ACS Applied Polymer Materials (Early Access).

In this paper Dr Ellen Heeley and co-authors investigate vulcanized rubbers that have wide usage in for example vehicle tyres. They demonstrate that by replacing the activator system used in conventional accelerated vulcanization (CV) chemistry, from the traditional zinc oxide (ZnO) and stearic acid to a complex formed between ω -propenyl functional oligomers of poly(zinc methacrylate) (pZnMA/ZnO), the self-healing properties of vulcanized natural rubbers are enhanced while maintaining good tensile strengths. Overall their results point to an interesting direction for further research into the performance of self-healing composites in vehicle tire applications.

[\$\alpha\$ -Dystrobrevin knockout mice have increased motivation for appetitive reward and altered brain cannabinoid receptor 1 expression](#)

Hawkes, Cheryl A.; Heath, Christopher J.; Sharp, Matthew M.; Gorecki, Dariusz C. and Carare, Roxana O. (2022). *Acta neuropathologica communications* (In press).

Cognition and behaviour are strongly dependent on inter-cellular connections in the brain and the interactions between different brain cell types including neurons (the electro-chemically active cells responsible for brain activity) and astrocytes (a cell type with many important roles including the production of key molecules required for brain function and blood vessel regulation). A protein that contributes to maintaining these critical functional and structural relationships is called α -dystrobrevin (α -DB), but little is known about how disruption to this protein could impact cognition and behaviour.

In a collaboration between two LHCS research groups and colleagues at the Universities of Lancaster, Southampton and Portsmouth, mice in which α -DB expression was prevented were characterised using the cutting-edge touchscreen behavioural analysis apparatus based in the OU Biomedical Research Unit. This revealed significant changes in the motivation of the animals to consume highly palatable rewards. Molecular-level analysis also indicated changes in protein expression in brain regions critical to higher cognition and reward valuation. Further studies to explore the relationship between these molecular- and behavioural-level changes could lead to important insights for clinical conditions in which α -DB is disrupted, such as the muscular dystrophies.

School of Mathematics and Statistics

[A Practical Algorithm To Detect Superexponential Behavior In Financial Asset Price Returns](#)

Lynch, Christopher and Mestel, Benjamin (2022). International Journal of Theoretical and Applied Finance (Early Access).

In this work Dr Chris Lynch and Ben Mestel investigated aspects of financial mathematics and the detection of bubbles and negative bubbles in financial markets. They derived a model founded on the Johansen-Ledoit-Sornette model of asset dynamics and showed that by using linear fitting of data coupled to a non-linear time transformation, their model had some predictive value. Over the market shocks created by for example the COVID-19 pandemic they suggest their model deserves further work.

Dr Lynch was an Open University MSc student, then PhD student, and is currently an EPSRC Post-Doc Researcher working on financial mathematics.

[Lacunarity transition in a chaotic dynamical system](#)

Cucurull, Bartomeu; Pradas, Marc and Wilkinson, Michael (2022). Journal of Physics A: Mathematical and Theoretical, 55, article no. 335001.

Understanding the physics of chaotic flows remains important. The random stirring of a fluid with particles floating on it shows areas where there are accumulations of high-density particles, and others that have low density, with gaps (voids) in between. A measure of the gaps is called lacunarity. In this work Dr Marc Pradas and Professor Michael Wilkinson with their US co-author

developed a simplified model for the lacunarity and they showed the distribution of the sizes of voids in the phase space can be mapped. Within their model they observe a transition region in phase space and there is a region within this space that remains empty as the number of trajectories of particles is increased.

School of Physical Sciences

[Mounds in Oxia Planum: The Burial and Exhumation of the ExoMars Rover](#)

[Landing Site](#)

McNeil, Joseph D.; Fawdon, Peter; Balme, Matthew R.; Coe, Angela L. and Thomas, Nicolas (2022). Journal of Geophysical Research: Planets, 127(11), article no. e2022JE007246.

There are currently rovers on Mars gathering data for research and the choice of landing site must be carefully made to extract the maximum scientific value possible. The rover 'Rosalind Franklin' was planned to be launched in 2022 as part of the ExoMars programme. In this paper Joe MacNeil and colleagues from the Open University and the University of Bern have conducted a very detailed analysis of the geological features of the 'Rosalind Franklin' Oxia Planum landing site. This is a region where there are hundreds of sub-kilometer-scale "mounds" that are likely to have been part of an extensive layer which covered the region in the distant past. By estimating erosion rates of the terrain they concluded that the region had been eroded at a much faster rate in the past than in the present. Because the areas around the mounds were probably exposed relatively recently, they are likely to have been protected from the harsh Martian

environment for longer than other areas and so may be amongst the best places for the rover to search for evidence of past life.

Joe McNeil was the winner of the OU [Research Excellence Awards](#) "Postgraduate Student of the Year"

[A pristine record of outer Solar System materials from asteroid Ryugu's returned sample](#)

Ito, Motoo; Tomioka, Naotaka; Uesugi, Masayuki; Yamaguchi, Akira; Shirai, Naoki; Ohigashi, Takuji; Liu, Ming-Chang; Greenwood, Richard C.; Kimura, Makoto; Imae, Naoya; Uesugi, Kentaro; Nakato, Aiko; Yogata, Kasumi; Yuzawa, Hayato; Kodama, Yu; Tsuchiyama, Akira; Yasutake, Masahiro; Findlay, Ross; Franchi, Ian A.; Malley, James A.; McCain, Kaitlyn A.; Matsuda, Nozomi; McKeegan, Kevin D.; Hirahara, Kaori; Takeuchi, Akihisa; Sekimoto, Shun; Sakurai, Ikuya; Okada, Ikuo; Karouji, Yuzuru; Arakawa, Masahiko; Fujii, Atsushi; Fujimoto, Masaki; Hayakawa, Masahiko; Hirata, Naoyuki; Hirata, Naru; Honda, Rie; Honda, Chikatoshi; Hosoda, Satoshi; Iijima, Yu-ichi; Ikeda, Hitoshi; Ishiguro, Masateru; Ishihara, Yoshiaki; Iwata, Takahiro; Kawahara, Kosuke; Kikuchi, Shota; Kitazato, Kohei; Matsumoto, Koji; Matsuoka, Moe; Michikami, Tatsuhiro; Mimasu, Yuya; Miura, Akira; Mori, Osamu; Morota, Tomokatsu; Nakazawa, Satoru; Namiki, Noriyuki; Noda, Hiroto; Noguchi, Rina; Ogawa, Naoko; Ogawa, Kazunori; Okada, Tatsuaki; Okamoto, Chisato; Ono, Go; Ozaki, Masanobu; Saiki, Takanao; Sakatani, Naoya; Sawada, Hirotaka; Senshu, Hiroki; Shimaki, Yuri; Shirai, Kei; Sugita, Seiji; Takei, Yuto; Takeuchi, Hiroshi; Tanaka, Satoshi; Tatsumi, Eri; Terui, Fuyuto; Tsukizaki, Ryudo; Wada, Koji; Yamada, Manabu; Yamada, Tetsuya; Yamamoto, Yukio; Yano, Hajime; Yokota, Yasuhiro; Yoshihara, Keisuke; Yoshikawa, Makoto; Yoshikawa,

Kent; Fukai, Ryota; Furuya, Shizuho; Hatakeda, Kentaro; Hayashi, Tasuku; Hitomi, Yuya; Kumagai, Kazuya; Miyazaki, Akiko; Nishimura, Masahiro; Soejima, Hiromichi; Iwamae, Ayako; Yamamoto, Daiki; Yoshitake, Miwa; Yada, Toru; Abe, Masanao; Usui, Tomohiro; Watanabe, Sei-ichiro and Tsuda, Yuichi (2022). Nature Astronomy (Early Access).

School of Physical Sciences researchers Drs Greenwood and Malley and Professor Franchi were part of a Japanese-led international team who reported on unique and pristine measurements from the asteroid Ryugu particles that were brought to Earth by the Hayabusa2 spacecraft. The team conducted a detailed study of the particles and shows that despite some contamination the Ryugu particles contain heavy hydrogen and nitrogen abundances are consistent with an outer Solar System origin. Despite the contamination they show that the samples provide the best measurements we currently have of the bulk composition of our Solar System and so they are very significant.

School of Engineering and Innovation

[Methane emissions from forested closed landfill sites: Variations between tree species and landfill management practices](#)

Fraser-McDonald, A.; Boardman, C.; Gladding, T.; Burnley, S. and Gauci, V. (2022). The Science of The Total Environment, 838(Part 2), article no. 156019.

Methane is a very important greenhouse gas (GHG), and the decay of landfill waste is a significant source. But landfill sites are complicated environments. Trees in natural and managed environments can act as conduits for the transportation of methane (CH₄) from below ground to the atmosphere, and so

bypassing oxidation in aerobic surface soils. Tree stem emissions from landfill sites also exhibit large temporal and spatial variability in temperate environments and can account for approximately 40% of the total surface CH₄ flux. In this work led by Dr Alice Fraser-McDonald, four Open University academics and a Birmingham University colleague conducted an experimental study of the methane emissions from forested closed landfilled sites to investigate the relationship between the physical environment and emissions, and the impact of trees on the landfills. They found that tree stem and soil GHG emissions varied between different landfill types, and that trees on a landfill without modern management techniques emitted the largest stem CH₄ fluxes. Whilst environmental conditions (waterlogging) and site age affected stem and soil fluxes, the stem GHG fluxes did not vary significantly between different tree species. With such a complex environment the authors conclude that it is important to include stem fluxes in total landfill GHG flux estimates to improve estimates of greenhouse gas emissions.

[Models in Engineering Design as Decision-Making Aids](#)

Eckert, Claudia and Hillerbrand, Rafaela (2022). *Engineering Studies*, 14(2) pp. 134–157.

In this paper, Professor Eckert and a German colleague investigate the use of models in engineering design. They note that models in engineering design do not function solely as representational or more general epistemic vehicles but that they are central to facilitating decision making. In engineering, often only the designers understand and determine the relation between the model and its target system. In this, they serve as truth makers and truth keepers. This

social process of design is essential to understanding the role of models and modelling from a meta perspective, but is also relevant to engineer when models are reused. A better understanding of these roles can help to illuminate the roles of models in engineering. To illustrate these points, this paper uses the design of a 3D printed kayak as an example that shows how even a fairly modest engineering design project requires the creation of a multitude of different models.

[Bring Voices from the Coast into the Fukushima Treated Water Debate](#)

Mabon, Leslie and Kawabe, Midori (2022). Proceedings of the National Academy of Sciences, 119(45), article no. e2205431119.

More than a decade has passed since the accident at the Fukushima Dai'ichi nuclear power plant in Japan—but the most contentious aspect of bringing the site under control is only just beginning. The Japanese Government has approved plant operator TEPCO's plan to release treated water into the Pacific Ocean. That water is currently being stored onsite and retains some radioactive substances after treatment. The decision to release this water has provoked political contention and societal concern. In this opinion paper Dr Mabon and his Japanese co-author discuss the planned water release and find the treated water issue at Fukushima is a cautionary tale. Investigations into environmental controversies that have international implications and require global scientific cooperation can overlook impacts on local communities. The management of the treated water releases could prove to be an important case study for how local stakeholders, such as fishers, can be embedded into the decision-making for complex marine environmental issues with long-term implications. Yet, for

this learning to be realized, local community “on the ground” experiences in Fukushima, related to treated water, need to be better connected to a national and global audience.

Knowledge Media Institute

[Motion vectors and deep neural networks for video camera traps](#)

Riechmann, Miklas; Gardiner, Ross; Waddington, Kai; Rueger, Ryan; Fol Leymarie, Frederic and Rueger, Stefan (2022). *Ecological Informatics*, 69, article no. 101657.

Monitoring and quantifying biodiversity is a hard task even at the best of times in that it requires more expert time than is available. This paper by Stefan Rueger and co-authors at the OU and the R&D Company, Dynaikon Ltd, enables camera trapping with low-cost hardware and low maintenance by automating recognition of potentially significant animal sightings through the use of Deep Neural Networks. Another significant innovation of the paper is a new Computer Vision algorithm to detect movement directly from the compressed video stream of the camera. This allowed replacing passive infrared sensors of conventional camera traps that are bound to miss fast moving or cold-blooded species. The proposed approach has been scientifically evaluated and published in the peer-reviewed Springer journal *Ecological Informatics*. The accompanying software is Open Source and suited for low-cost and widely available Raspberry Pi computing devices that make these camera traps an ideal DIY proposition for amateur nature observers and citizen scientists. So far, the recent publication has led to a Citizen Science group in Catalonia to explore this approach in the wild to enable them to assess prevalence and health of the local wild-cat population.

[A topic modelling analysis of white papers in security token offerings: Which topic matters for funding?](#)

Bongini, Paola; Osborne, Francesco; Pedrazzoli, Alessia and Rossolini, Monica (2022). *Technological Forecasting and Social Change*, 184, article no. 122005.

This paper, published in a top Business journal, presents critical new insights on Security Token Offerings (STOs), a new development in the world of cryptocurrencies that are being increasingly used by companies to raise capital and by investors to get in on the ground floor of promising projects. We combined AI methodologies and economic models to perform a comprehensive analysis of trends and topics in this novel space. The results highlight the importance of sustainability and green issues, which disclosure increases the probability of campaign success and the amount of funding. Another prominent trend regards innovative healthcare technologies, which are attracting very significant investments in the STO market. The resulting insights are fundamental for supporting entrepreneurs in improving their campaign disclosures and informing governments and policymakers that regulate investments in cryptocurrencies.

Faculty of Business and Law

[An ecofeminist position in critical practice: Challenging corporate truth in the Anthropocene](#)

Gender, Work & Organization (Early Access). Barthold, Charles; Bevan, David and Corvellec, Hervé (2022).

Drawing on selected discourses of non-essentialist ecofeminism, this article proposes and substantiates an ecofeminist position. This distinct position is shown to bring with it a capacity to challenge widely uncontested, corporate-produced truths regarding the benefits and the legitimacy of certain commercial activities. Three historical cases inform the discussion: the fights led by Rachel Carson against dichlorodiphenyltrichloroethane, by Erin Brockovich against hexavalent chromium, and by Vandana Shiva against genetically modified organisms. Distinguishing characteristics of this emblematically individual and critical activist practice include that it is aimed at fighting environmental degradations; it originates from outrage; it is sustained by dedication and courage; and it combines pedagogy, politics, and ethics. We show how this practice may be understood by reference to acknowledged ecofeminist tenets and in particular with the advocating of a holistic, respectful association with all forms of life on Earth. This is in stark contradistinction to dualist, corporate positions of self-interested detachment from the environment, and a corresponding denial of the entanglement of the social and physical worlds. We show how such an ecofeminist position has been capable of disrupting both established corporate truths and the discursive power relationships attached to them; and how it engenders an imperative that corporations must confront and engage with the deliberate, anthropogenic consequences of their activities.

[Postponing the day of your dreams? Modern weddings and the impact of COVID-19](#)

Families, Relationships and Societies (Early Access). Pywell, Stephanie and Probert, Rebecca (2022).

COVID-related restrictions had an enormous impact on weddings in 2020. For three months, weddings were effectively prohibited, and requirements for social distancing, hand-sanitising and face coverings existed throughout England and Wales for the rest of the year. In August 2020, we conducted a survey of couples who were planning to marry between March and December 2020. This article focuses on how many respondents had postponed their wedding, and what they said about their reasons for doing so. We analyse their responses according to the significance attached to three alternative meanings of a wedding: an event for family and friends, a traditional ceremony that has to be conducted in a particular way, and the individualistic 'perfect day'. We found that many couples attach considerable importance to who attends their weddings, and that some traditions are very important to them, but few responses supported the notion that weddings are principally extravagant displays.

[The Public Sector and Co-Creation in Turbulent times: A Systematic Literature Review on Robust Governance in the COVID-19 emergency](#)

Public Administration (Early Access). Scognamiglio, Fulvio; Sancino, Alessandro; Calo, Francesca; Jacklin-Jarvis, Carol and Rees, James (2022).

The capacity of public sector of co-creating with other stakeholders is challenged by the increasing presence of disruptive turbulent events, such as the COVID-19. At this regard, robustness has been identified as a suitable response to deal with this kind of events. Through a systematic literature review, we analysed how public sector organisations have co-created with other actors during the COVID-19 and what have been the contribution of robust governance strategies. Our findings point firstly to the empirical validity of the robustness concept, providing evidence of the extensive use of robust governance strategies into the co-creation processes. Secondly, we identified a configurational approach to robustness, with governments co-creating by simultaneously employing several robust strategies. Thirdly, we observed a more active involvement of societal stakeholders, with emergence of proto-institutions and potential threats to the political system.

[Financialisation and firm-level investment in developing and emerging economies](#)

Cambridge Journal of Economics, 46(4) pp. 891–919. Tori, Daniele and Onaran, Ozlem (2022).

This article analyses the effects of financialisation on non-financial companies' (NFCs) investment and explores the interactions between financialisation and the structural and institutional features of developing and emerging economies (DEEs). We estimate the effects of financialisation on physical investment for a sample of DEEs using panel data based on the balance sheets of publicly listed NFCs. Our main contribution is to assess the interactions between the financialisation of the NFCs and country-level financial development, financial

reform, capital account openness and global value chain participation. We find that the effects of the financialisation of the NFCs in DEEs are highly context-specific. Stock market development, financial reforms for liberalisation, capital account openness and participation in the global value chains are associated with more pronounced negative effects of financialisation on investment. Our analysis provides novel empirical evidence regarding the sources of variation in the financialisation of corporations in DEEs.

[\(Re\)constructing a hostile environment: political claims making and the primary definers of a refugee “crisis”](#)

International Journal of Sociology and Social Policy (Early access). Montgomery, Tom; Calo, Francesca and Baglioni, Simone (2022).

In this article focused upon the UK context, the authors sought to better understand how political elites shaped public debate to reinforce rather than challenge the hostile policy environment for those seeking asylum. The study’s findings reveal the extent to which political elites acted as “primary definers” of the “crisis” and utilised that position to cast those arriving in Europe as a threat to be managed.

[Developing voluntary sector leadership through Open Educational Resources: a practice perspective](#)

Voluntary Sector Review (Early Access). Jacklin-Jarvis, Carol; Vangen, Siv; Smolovic Jones, Owain; Haslam, Daniel; Mutwarasibo, Fidele; Britton, Helen and Logan, Kay (2022).

This practice paper reflects on the experience of delivering leadership development for the voluntary sector through open access online learning. We outline key elements of learning design and explore the potential and challenges of widening access to leadership development through this form of learning. We note the importance of aligning the conceptualisation of leadership, approach to learning and principles of open access. The paper ends by offering insights for leadership development practitioners.

[Individual investors and social ownership structures in the UK before the 1930s: Joint holdings and trustee investment](#)

The Economic History Review (Early Access). Rutterford, Janette; Sotiropoulos, Dimitris and Van Lieshout, Carry (2022).

After the introduction of limited liability, a growing number of individuals in Britain from a widening social spectrum, including the less affluent, began to own stocks and shares. Drawing upon a unique and large dataset of 35,848 investors between 1870 and 1935, this study analyses joint holdings, which have been a neglected aspect of investor behaviour. Our findings reveal that joint holdings were quite common and that about one in five UK investors were involved in a joint investment. Men were more likely to be joint holders than women for reasons related to institutions of social ownership such as trusts and executorships.

[Public leadership to foster peacebuilding in violently divided societies](#)

Public Management Review (Early access). Khalil, Loua and Hartley, Jean (2022).

This paper examines public leadership for peacebuilding in divided societies emerging from severe violence. It deploys two theories of leadership: social identity and political astuteness, to investigate peacebuilding leadership processes. The paper investigates contradictions in social identity leadership, since peacebuilding leaders reach out beyond their own group to outgroups in hostile contexts. Semi-structured interviews with 32 leaders in Northern Ireland and in Bosnia Herzegovina, reveal that leading for peacebuilding exhibits inverse processes of social identity leadership and that political astuteness is also critical to navigate integration and differentiation within/across groups. Wider implications for public leadership in societies containing division are discussed.

[Improving the 'victim journey' when reporting domestic abuse cyberstalking to the police – A pilot project evaluation](#)

Criminology & Criminal Justice (Early access). Taylor-Dunn, Holly and Erol, Rosie (2022).

Criminal justice responses to stalking in England and Wales have come under increased scrutiny following the Joint Criminal Justice Inspectorate report in 2017. In response, police forces throughout England and Wales attempted to improve their handling of stalking. In one UK police force, a project was developed to improve the identification, investigation and victim journey for domestic abuse cyberstalking offences. The project included a specialist investigation team along with a dedicated and co-located Independent Domestic Violence Advisor. This article draws on research conducted during the evaluation of the project and will evidence high levels of victim engagement,

positive reports from victims and a 100% success rate in obtaining restraining orders. These findings highlight the valuable role of specialist teams with integrated, independent support for victims and suggest that the victim journey can be improved through collaborative projects between the police and specialist organisations.

[The Role of Civil Society in the Labour Market Integration of Migrants in Europe: An Introduction](#)

VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 33(5) pp. 851–861. Baglioni, Simone; Calò, Francesca and Numerato, Dino (2022).

This paper serves as an introduction to a special issue that discusses the role of civil society in the labour market integration of migrants, refugees and asylum seekers in six European countries: the Czech Republic, Finland, Greece, Italy, Switzerland and the UK. The paper presents a typology of civil society's involvement in migrant labour integration—a policy-contested field—based on the relationship between non-profit and public sector organisations. Such ideal-type models are traditional public administration delivery, co-management, co-production with a partial or non-existent role for public sector organisations, and full co-production. In the six countries covered by the special issue, the existing relationship between the public sector and the civil society sector is affected by the specific social, cultural and economic contexts that underpin both their labour markets and welfare states. Although one model predominates in each of the six countries, in different ways and with different mechanisms, in all of them there is a trend towards the development of coproduction whereby the state plays either a central or a residual role.

Faculty of Wellbeing, Education and Language Studies and the Institute of Educational Technology

Education, Childhood, Youth and Sport

[Inclusive disaster risk reduction education for Indonesian children](#)

Sheehy, Kieron; Vackova, Petra; van Manen, Saskia; Turnip, Sherly Saragih; Rofiah, Khofidotor and Twiner, Alison (2022). International Journal of Inclusive Education (Early Access).

Indonesia experiences one of the highest rates of natural disasters in the world. When natural disasters occur the death and injury rate of disabled people is much higher than other people and the rate for children is 'alarmingly high', accounting for 30–50% of deaths. This article is part of the ASSIK (Anak Setara Slaga Kebencanaan) project which is developing inclusive disaster risk reduction education for children. ASSIK has developed from ongoing inclusive education work in Indonesia, within the Rumpus research group. The project seeks to develop approaches that are fun, engaging, and impactful for teachers and children, in line with UNICEF's recommendations. This article presents the findings of both a literature review and national survey of schools across Indonesia which together provide evidence for a lack of inclusion of the most vulnerable in disaster risk reduction education. The project team, led by Kieron Sheehy and involving Petra Vackova and Alison Twiner from The Open University with Indonesian-based partners represented in the authorship of this article, have since developed and piloted a series of books for 170 kindergartens using a

keyword signing approach being promoted through the related Signalong Indonesia project.

[Using video technology to support micro-teaching and reflection in Initial Teacher Education](#)

Defis, Nerys; Glover, Alison; Jennings, Carys; Stewart, Sarah; Wallis, Rachel; Craggs, Ben; Hay, Ceris; Linton, Beth; Powell, Thomas and Williams, Amanda (2022). *Journal of Educational Innovation, Partnership and Change*, 8(1).

This is a jointly authored article between Open University Post Graduate Certificate in Education (PGCE) tutors and five of their student teachers. Using a case study approach, the article explores student engagement in a technology-facilitated micro-teach project developed by the PGCE team in response to Covid-19 restrictions to face-to-face teaching in schools. Overall, this case study highlights many benefits to using video technology as a tool to facilitate socially constructed reflection, supporting peer-feedback and discussion between student-teachers. The project led to further collaborative research experiences for tutors and student-teachers including a further paper and a conference presentation. Additionally, the PGCE programme has drawn on the findings of this case study to explore further use of video technology as a means of supporting student-teacher development.

[Disrupting language of instruction policy at a classroom level: oracy examples from South Africa and Zambia](#)

Chamberlain, Liz; Rodriguez-Leon, Lucy and Woodward, Clare (2022). *Literacy (Early Access)*.

This article draws on observational data in early years and primary school settings from two funded research projects in South Africa and Zambia and is co-authored by Open University colleagues. The vignettes are used to illustrate how valuing oracy and legitimizing multilingualism alters classroom dynamics and interactions amongst teachers and children; encouraging translanguaging as a pedagogical approach. The first study was an evaluation of the impact of the free online course 'Teaching Early Reading with African Storybook', adopted by Ntataise (an independent not for profit organisation that supports Early Childhood Development programmes in South Africa) as part of their training programme for practitioners. The second study is part of the six-year ZEST (Zambian Education School-based Training) programme, led by the Open University, working with the Zambian Ministry of Education and World Vision Zambia and funded by the Scottish Government, engaging with over 400 primary schools in Central Province, Zambia. This article and a subsequent conference paper at the UK Literacy Association international conference (July 2022) forms part of the journal's Open Access special edition - Oracy and education: perspective shifts and policy tensions.

[Implementing an Empowerment Framework: The Significance for Children's Play Environments and Reflective Practice](#)

Canning, Natalie (2022). *Education Sciences*, 12(8), article no. e556.

This article responded to a call for a special issue in early childhood to present research which considers how early childhood professionals can change their observational practice to focus on the process of children's empowerment through the choices, decisions and interactions they make. The empowerment

framework asks practitioners to record children's play through prompt questions that focus on their participation, how they choose to use their voice and the way they own their play space. The answers to these questions build a layered picture of children's empowerment. Thinking about empowerment provides practitioners with the opportunity to reflect and acknowledge the rich learning and development that happens within children's play and how that contributes to children's experiences, curiosity, interests and confidence. Empowering experiences enables children to approach challenges in a positive way, with a 'can do' attitude, a skill that is significant for adolescence and adulthood. The next development of the empowerment framework is in making it into a digital platform. An Interactive Learning Diary will be launched in January 2023, through the Children's Research Centre seminar series.

[Practice and the professional doctorate: a diffractive re-reading](#)

Dennis, Carol Azumah; Chandler, Kathy and Puntill, Donata (2022). *Journal of Further and Higher Education* (Early access).

The Professional Doctorate is premised on making a contribution to professional practice. In this article the programme director wanted to explore with researchers on the doctoral research programme the ways in which this contribution is accomplished. Using collaborative autoethnography the co-authors argue that the contribution that academic study makes to professional practice very rarely assumes a linear straightforward action, leading to an equal and opposite reaction. The policy aspiration of evidence-based practice is not as benign as it may first appear. At times research and practice run along parallel lines, unable to communicate meaningfully. Rather than a linear

equation, they reach towards a $2 + 2 =$ orange incommensurability. At other times research confounds, undermines and disrupts practice. The authors leant into posthuman ideas of diffraction to distinguish between academic and professional ways of knowing while drawing on our personal experiences to show when and how academic study made a difference to our professional practice. Peer review reactions to the paper were mixed, ranging from a frustrated, no; through a bored, maybe; to an enthusiastic, yes. The authors were really pleased that it was ultimately accepted for open access publication as food for thought for a wider audience.

[The Influence of an 8-Week Strength and Corrective Exercise Intervention on the Overhead Deep Squat and Golf Swing Kinematics](#)

Langdown, Ben; Bridge, Matt W. and Li, Francois-Xavier (2022). Journal of Strength and Conditioning Research.

There has been recent debate around the connection between physical screening tests and the movements used in the golf swing. This article, developed from Ben Langdown's doctoral study at The Open University, provides insight into the overhead squat test and losing posture in the golf swing. This article was presented prior to publication at The World Golf Fitness Summit, and keynote presentations to the PGAs of Czech Republic, Slovakia and Spain and England Golf. The findings have been used within The Professional Golfers' Association (PGA) degree programmes and influenced practice on England Golf development programmes, among others. Ben continues to research in golf strength and conditioning (S&C), securing £20K funding for a warm-up study with Therabody, publishing on [the impact of Covid-19](#) on golfers and S&C

coaches (2022), and investigating the planning of the golf year with integrated S&C (submitted). Ben is establishing the AMI Sports: Golf app with additional data being gathered to publish case studies for practice and training habits. His latest paper summarises the [impact of the COVID-19 pandemic on golfers' S&C](#).

[Inclusive Learning for Children in Northeast Nigeria: Radio School Response During a Global Pandemic](#)

Ebubedike, Margaret; Boampong, Michael; James, Kiki; Shuaibu, Hassana and Monyeh, Temitope Yetu (2022). *Social Inclusion*, 10(2) pp. 206–216.

This article focuses on data generated around a radio school initiative designed to mitigate the impact of Covid-19-related school closures in northern Nigeria, co-authored by Margaret Ebubedike and Michael Boampong at The Open University, with project partners. The initiative targeted young learners using radio as a medium to support their continued learning remotely in numeracy, literacy, sciences, and civics education. Daily learning activities were broadcasted in the local Hausa language, supported through “listening groups” that engaged local learning facilitators in the communities. Despite the known existing barriers that have been identified to hinder access to quality education in the region, including poverty, socio-cultural factors, and protracted conflict and crisis situations, our interviews revealed that parents were committed to supporting their children’s attendance at listening groups, due to the use of their mother tongue as a mode of instruction. The fact that the lessons were taught in my native Hausa language made me understand better because, in our school, they just teach, not minding if we understand it or not, so I am happy I was part of the listening groups. (L1). Drawing on a conversational learning approach, we

argue that understanding local conditions and adopting local solutions, such as the radio lessons delivered in children's mother tongue, have implications for enhancing improved learner outcomes especially in marginalised contexts.

Health, Wellbeing and Social Care

[Standardising care of the dying: An ethnographic analysis of the Liverpool Care Pathway in England and the Netherlands](#)

Borgstrom, E., & Dekker, N. L. (2022). *Sociology of Health & Illness*, 44(9), 1445–1460.

The Liverpool Care Pathway for the Care of the Dying Patient (LCP) is perhaps best known in the UK for being removed from practice following a Daily Mail campaign and official review; however, it is currently still used in other countries. In this paper, Borgstrom (from the OU) and Lemos Dekker use ethnographic data from England and the Netherlands to examine the ways in which the LCP was used as a mechanism for standardising end-of-life care across contexts. This study enables an understanding of the multiplicity of use of standards in care practices, from imparting moral values to demonstrating professionalism. The paper provides a novel contribution for thinking about healthcare standards in practice as well as methodological developments in comparative ethnography. It is one of several international collaborations Borgstrom has been part of focusing on end-of-life care, and contributes to the growing work done within Open Thanatology to examine issues related to death, dying and bereavement.

['People are Trapped in History and History is Trapped Inside Them': Exploring Britain's Racialized Colonial Legacies in Criminological Research](#)

Alpa Parmar, Rod Earle, Coretta Phillips, *The British Journal of Criminology*, 2022; azac058.

This article is one in a series of three co-produced with Professor Coretta Phillips (LSE) and Alpa Parmar (Cambridge). It emerges from several years of joint work that began with our organising an international symposium of predominantly black and racially minoritized scholars at the LSE in 2018 ([Race Matters: A New Dialogue between Criminology and Sociology](#)). This led to us editing a special 'Race Matters' issue of the journal *Theoretical Criminology* ([Race matters in criminology: Introduction to the Special Issue - Alpa Parmar, Rod Earle, Coretta Phillips, 2020](#)) in which we challenged the discipline of criminology to raise its game in theorising race. In the subsequent articles, of which this is one, we wanted to see if there was a new way of working with race and tackling racism in criminology – we wanted to put our theorising into practice. It wasn't easy and it needed three articles to address our struggles. We focus on our respective racialised positions, mine as a white, anglo-Irish man, Alpa's as an Indian heritage British woman, and Coretta's as a black, mixed race British woman and the way they might intersect with our research subjects in two different research projects. Although it was exhausting work, we have far from exhausted the potentials we find in weaving biography, autobiography and history into criminology to expose and challenge racism. All three will be listed in Rod Earle's ORO page in 2023.

['Social Work England: A regulator worthy of our collective dissent'](#)

Hanley, J. (2022), *Aotearoa New Zealand Social Work*, 34 (3), 48-60.

This open access article analyses the first few years of the new social work regulator in England, Social Work England, including looking at the history and makeup of the organisation, the manufacturing of consensus and appropriation of social work voice. The article also highlights the growing dissent social workers are demonstrating towards the regulator, in particular around the continuing professional development (CPD) and annual registration requirements. The article has received both national and international attention since its publication, including a feature in *Professional Social Work* magazine, the official magazine of the British Association of Social Workers' 22,000 members. Since publication the author has also used the article to highlight ongoing concerns about the regulator, in particular the unintentional deregistration of over 1,000 social workers in November 2022 as a direct result of the regulators registration system.

[A qualitative analysis of feelings and experiences associated with perinatal distress during the COVID-19 pandemic](#)

Jones, K., Harrison, V., Moulds, M.L. et al. *BMC Pregnancy Childbirth* 22, 572 (2022).

In collaboration with researchers from The University of New South Wales, this research qualitatively analysed data from a survey investigating mental health in pregnancy and the year following childbirth during the COVID-19 pandemic (associated quantitative findings have also been published). Two-thirds of the 424 respondents scored in the clinical range for anxiety and/or depression on

self-report measures, and an initial content analysis of qualitative responses revealed twelve distinct feelings/symptoms that participants reported in relation to their experience of maternal distress. Additionally, a more in-depth thematic analysis highlighted the importance of social support, realistic expectations of motherhood, and support for perceived perinatal trauma as factors which may help to alleviate maternal distress. Katie Jones hopes to extend these findings in her PhD researching the risk factors and triggers associated with anxiety in the year following childbirth. In combination, this body of work should help to guide those supporting perinatal wellbeing (e.g. midwives, health visitors, and other perinatal support workers) in terms of how to better identify perinatal distress; as well as highlighting potential therapeutic targets for interventions which aim to prevent and reduce distress in perinatal cohorts.

["Children's understanding and consent to heart surgery: multidisciplinary teamwork and moral experiences"](#)

Alderson, P, Bellsham-Revell, H, Dedieu, N, Heath, J, King, L, Mendizabal, R, Sutcliffe, K, Stockton, E, Taylor, S, Vigneswaran, T, Wellesley, H and Wray, J. (2022). Journal of Child Health Care. Online First

There is ongoing discussion around how old a child should be in order to be able to consent to cardiac surgery both effectively and ethically. This publication is part of the output from a study funded by The British Heart Foundation and led by a research team at UCL delving deeper into this topic. My role consisted of being the nursing voice to help capture the viewpoints of all relevant members of the multidisciplinary team. Ultimately, the study concluded that children as

young as six years old, can successfully give or refuse informed consent to cardiac surgery if emotionally capable and if believed by the adults involved (parents, healthcare professionals). Future publications and conference presentations are planned for the findings as well as dissemination with paediatric cardiac centres looking to maintain a contemporary approach to gaining children's consent.

[Coping strategies to enhance the mental wellbeing of sexual and gender minority youths: A scoping review](#)

Lucassen, M.F.G, Núñez-García, A., Rimes, K. A., Wallace, L. M., Brown, K. E., & Samra, R (2022). *International Journal of Environmental Research and Public Health*, 19(14), e8738.

Robust population-based research has highlighted that sexual and gender minority youth are at an increased risk of mistreatment as well as mental health problems, including depression. But little has been written about the evidence-informed interventions designed to meet their specific needs. We conducted a scoping review to help inform the development of our Medical Research Council funded prototype digital toolkit, which aims to enhance the mental wellbeing of sexual and gender minority youth. Of the 3,692 papers initially identified for this review, 68 papers met inclusion criteria. Twenty-four of the included papers were intervention-focused studies, comprising 17 unique interventions. The most commonly cited therapeutic modality utilised was cognitive behavioural therapy (CBT), which was used in 11 of the studies.

[Progress towards enhanced access and use of technology during the COVID-19 pandemic: A need to be mindful of the continued digital divide for many rural and northern communities](#)

Freeman S, Marston HR, Ross C, et al. Healthcare Management Forum. 2022;35(5):286–290.

The paper 'Progress towards enhanced access and use of technology during the Covid 19 pandemic' aims to provide health professionals and policy makers with knowledge and insight of appropriate technology solutions informed by evidenced-based research conducted by an international team researchers including at the OU (Marston), Swansea University (Morgan), and Northumbria Universities (Wilson and Gates) as well as director(s) of the Centre for Technology Adoption for Ageing in the North ([CTAAN](#)) (Freeman, McAloney) located in Northern British Columbia, Canada. Together, we emphasize the importance for hybrid solutions to support aging in place for older adults in rural and northern communities which also aim to address and mitigate the digital divide.

Examples in this paper aim to address myths and stereotypes that mistakenly promote older adults lack of interest to use technologies. Two UK projects which received seed funding from the Health and Wellbeing SRA [The [Covid-19: Dating apps, social connections, loneliness, and mental health in a pandemic](#), (Lead – Dr H.R. Marston)] and the [Adapt Tech, Accessible Technology](#) (ATAT) project (Lead – Dr D.J. Morgan (Swansea University); Marston (Co-I) challenge the myth of older adults use of apps and digital technologies.

The ATAT project produced an 'icon' booklet in English and Welsh to assist people to understand the different meaning of the icons found on smartphones, and the different types of apps available for download. These booklets have been distributed to networks across Wales, the Welsh Government, CTAAN, Age UK Teesside, AGE Northern Ireland, and Middlesbrough Council. An electronic version is available for download via the project [webpage](#). A co-created podcast demonstrates the importance of participatory research and the impact of the digital divide on older adults.

This paper provides four points for policy makers to consider:

Be aware of how population classifications (eg, rural, northern, and urban) may mask variation particularly when discussing the digital divide and in relation to social participation.

Continuously reflect on and evaluate the accessibility and use of digital services across different user groups to ensure equity in the ability for the service to meet the needs of everyone, and support even the most digitally excluded if they remain.

Government programs that support people to purchase technology and internet are imperative. Greater priority and attention are paramount to address the affordability of technology and high-speed internet.

The digital divide will persist and may continue to grow if long-term services and support programs are not in place. Government can play a key role in incentivizing and supporting community groups and organizations to develop

locally tailored and relevant services and supports to meet the needs of the communities they serve.

Further pathways to impact include the upload of the 'icon' booklet been uploaded to the World Health Organization [extranet](#) 'Age-friendly World' demonstrating Age-Friendly in practice.

Languages and Applied Linguistics

[Tartuffe in the Post-Truth Era](#)

Wilton-Godberfforde, Emilia (2022). *L'Esprit Créateur*, 62(2) pp. 147–161

This article examines how Molière's *Le Tartuffe* has been reimagined for the British stage in recent years. A range of new productions including Anil Gupta and Richard Pinto's version (for The Birmingham Repertory theatre and The Royal Shakespeare Company in 2018) testify to the play's popularity in a world dominated by fake news and mendacious leaders. I examine the extent to which the prestige and polemical force of the French version are captured and whether, in the process of transformation, something altogether different emerges. Rewriting and transformation are fundamental concepts for understanding how Molière changed his original 1664 text.

[Lenguas minoritarias y redes sociales: la creación de #estiktokat para contenidos en catalán](#)

Milà-Garcia, Alba and Tudela-Isanta, Anna (2022). *Cuadernos Europeos de Deusto*(04) pp. 173–202.

This paper focuses on the study of the hashtag #estiktokat, a reference when finding and creating content in Catalan in TikTok. We interviewed four creators of the hashtag, and analysed a corpus of the 216 videos with more engagement by the #estiktokat hashtag. The results show the hashtag has managed to create a space of communication and interaction in Catalan.

[Offence and morality: Pragmatic perspectives](#)

Haugh, Michael; Kádár, Dániel Z. and Marquez Reiter, Rosina (2022). *Language & Communication*, 87 pp. 117–122.

The SI discusses what pragmatics as a linguistic perspective brings to research on offence. Overall, the papers show how people take offence across different settings and sociocultural contexts. It does this by examining the moral and relational implications of taking offence (i.e., reactions rather than intentions) and scrutinising the relationship between offence and morality. Future plans include an edited volume Haugh and Marquez (eds) entitled “Discourse and Morality” in progress and under contract with Oxford University Press (Sociolinguistics Series). The volume brings together different discourse analytic traditions (broadly understood) to the study of morality in discourse (ethnomethodology/CA, political discourse analysis, sociolinguistic story-telling, digital communication).

[Examining evaluative language used in assessment feedback on business students’ academic writing](#)

Shrestha, Prithvi (2022). *Assessing Writing*, 54, article no. 100664.

This paper innovatively examines feedback summaries on distance undergraduate business students' written assignments. It investigates under-researched evaluative language in feedback summaries through a Systemic Functional Linguistic perspective (Appraisal framework). Feedback summaries focus on students' writing behaviour rather than their assignments. Tutor's choice of evaluative language can affect student learning experiences.

[New understandings of the rise of English as a medium of instruction in higher education: the role of key performance indicators and institutional profiling](#)

Hultgren, Anna Kristina and Wilkinson, Robert (2022). *International Journal of the Sociology of Language*, 2022(277) pp. 47–59.

This article proposes a new explanation for the recent rise of English in European higher education. Using the Dutch system as a case in point, the article traces the drivers of English even further back than current explanations, pointing to the introduction, from the 1980s and onwards, of new modes of governing the higher education sector, premised on neoliberalism, targets and key performance indicators. The article considers what a political science approach might bring to linguistics.

[Marginalization and Underrepresentation in Virtual Exchange: Reasons and Remedies](#)

Alami, Nael; Albuquerque, Josmario; Ashton, Loye; Elwood, James; Ewoodzie, Kwesi; Hauck, Mirjam; Karam, Joanne; Klimanova, Liudmila; Nasr, Ramona and Satar, Müge (2022). *Journal of International Students*, 12(S3) pp. 57–76.

In some regions and in various contexts, challenges in virtual exchange (VE) implementation have resulted in disadvantaged populations in terms of underrepresentation and marginalization in global VE networks. To illuminate such challenges, a mixed-method approach involving a global survey and interviews with instructors, administrators and educational decision-makers, was utilized to elucidate reasons for underrepresentation in terms of political, governmental, institutional, administrative, technological, pedagogical, cultural and personal challenges. We conclude with recommendations for underrepresented regions and populations.

[Book Review: Philip Seargeant, The Art of Political Storytelling: Why Stories Win Votes in Post-Truth Politics](#)

Nao, Marion (2022). Discourse & Communication (Early access)

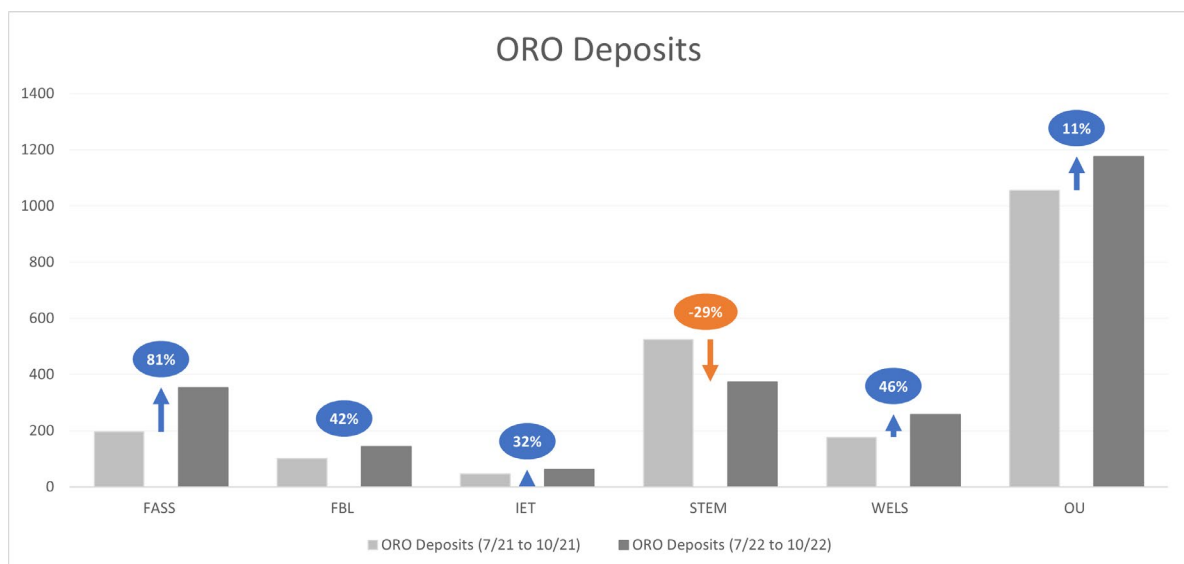
This contribution to “Discourse & Communication” reviews Philip Seargeant’s book “The Art of Political Storytelling: Why Stories Win Votes in Post-Truth Politics”. It critically and favourably comments on the author’s illumination of political persuasion through storytelling, by which he unpacks the tools of emotive manipulation employed to shortcut or trump reason.

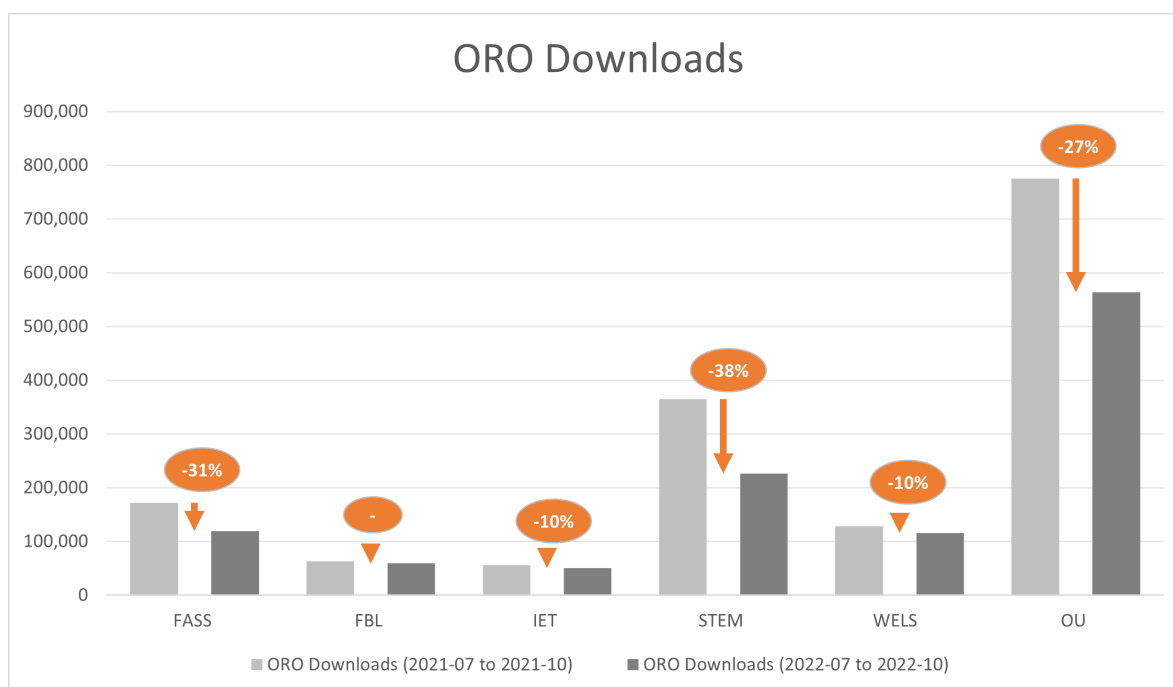
Section 3: Open Research

Outputs Data from Open Research Online (ORO)

This section tracks our presentation of open access publications on [ORO](#). Our [Research Plan 2022 to 2027](#) sets out our aims to go further in ensuring our research is accessible to everyone.

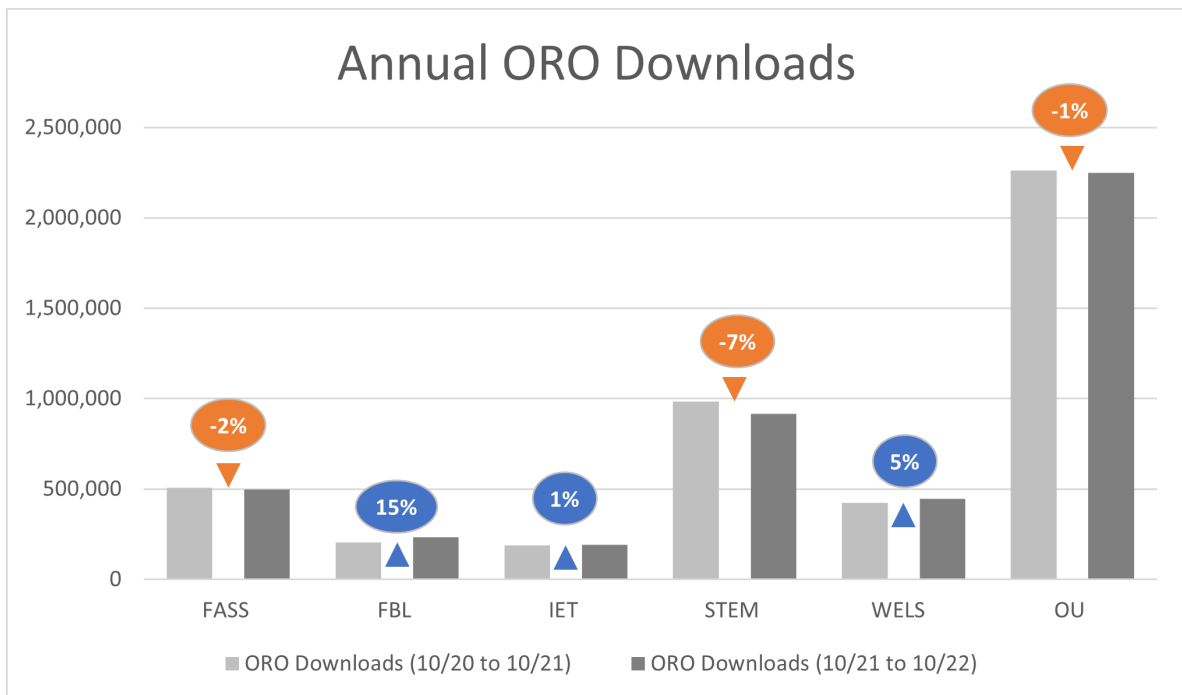
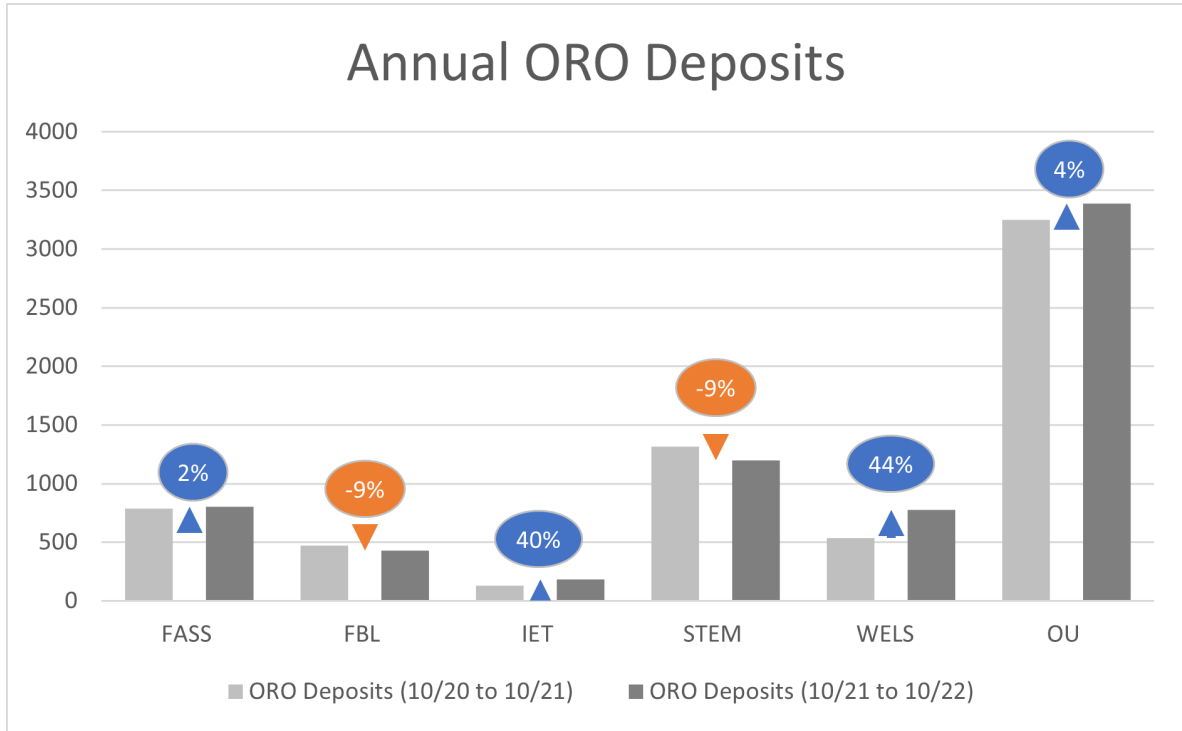
Data for July to October 2022





	ORO Deposits			ORO Downloads		
	2022	2021	Change	2022	2021	Change
Faculty of Arts and Social Sciences	354	196	81%	118,976	172,203	-31%
Faculty of Business and Law	143	101	42%	59,052	62,719	-6%
Faculty of Science, Technology, Engineering and Mathematics	374	525	-29%	226,477	365,013	-38%
Faculty of Wellbeing, Education and Language Studies	258	177	46%	115,653	128,524	-10%
The Institute of Educational Technology	62	47	32%	50,533	55,924	-10%
<i>The Open University</i>	<i>1,176</i>	<i>1,056</i>	<i>11%</i>	<i>563,636</i>	<i>774,984</i>	<i>-27%</i>

Cumulative Data for October 2021 to October 2022

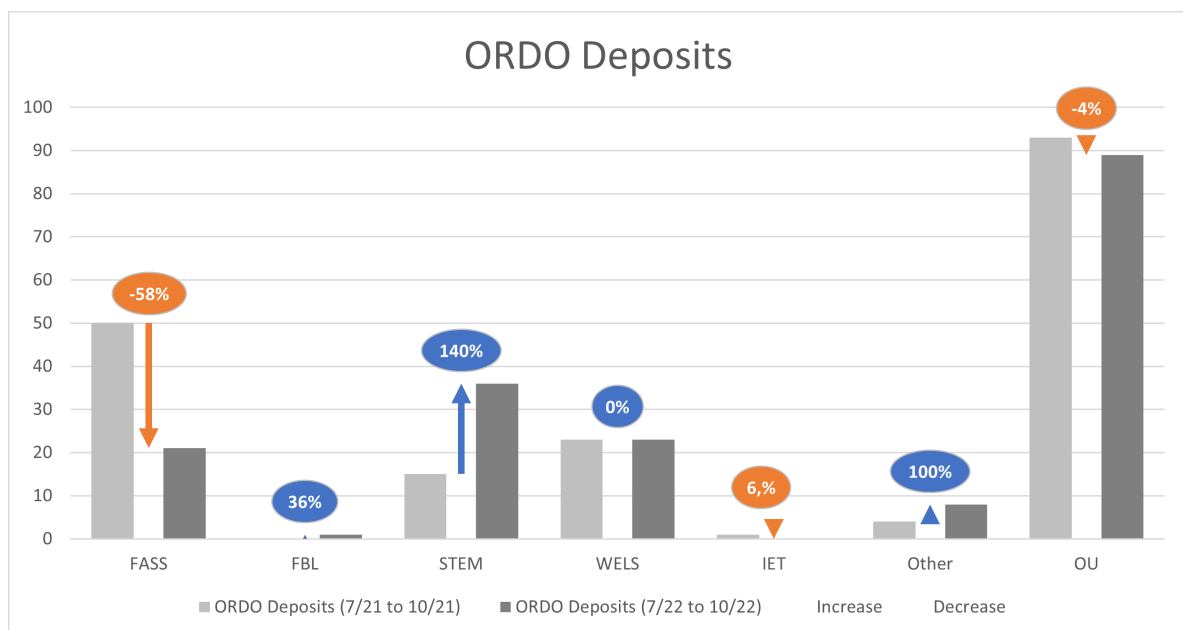


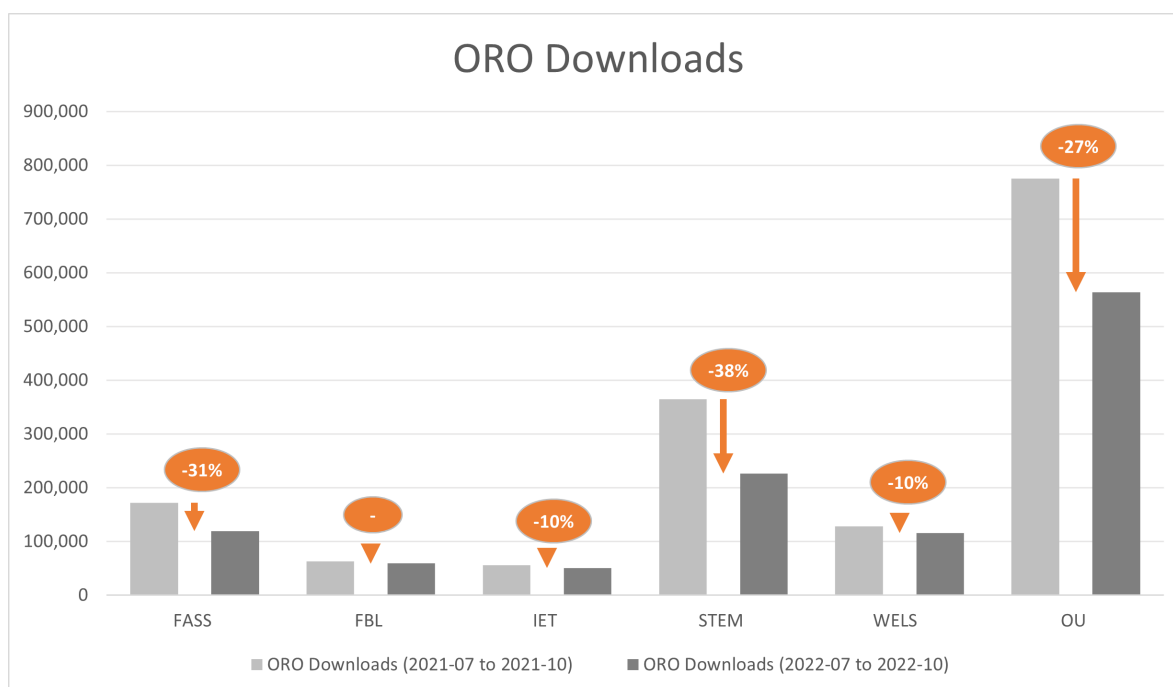
	ORO Deposits			ORO Downloads		
	2022	2021	Change	2022	2021	Change
Faculty of Arts and Social Sciences	803	784	2%	505,838	496,005	-2%
Faculty of Business and Law	473	431	-9%	233,403	202,865	15%
Faculty of Science, Technology, Engineering and Mathematics	1,316	1,197	-9%	915,626	984,229	-7%
Faculty of Wellbeing, Education and Language Studies	537	775	44%	446,511	424,065	5%
The Institute of Educational Technology	131	183	40%	189,738	188,602	1%
<i>The Open University</i>	3,388	3,247	4%	2,250,481	2,263,104	-1%

Open Data from Open Research Data Online (ORDO)

This section tracks our presentation of open access data on [ORDO](#).

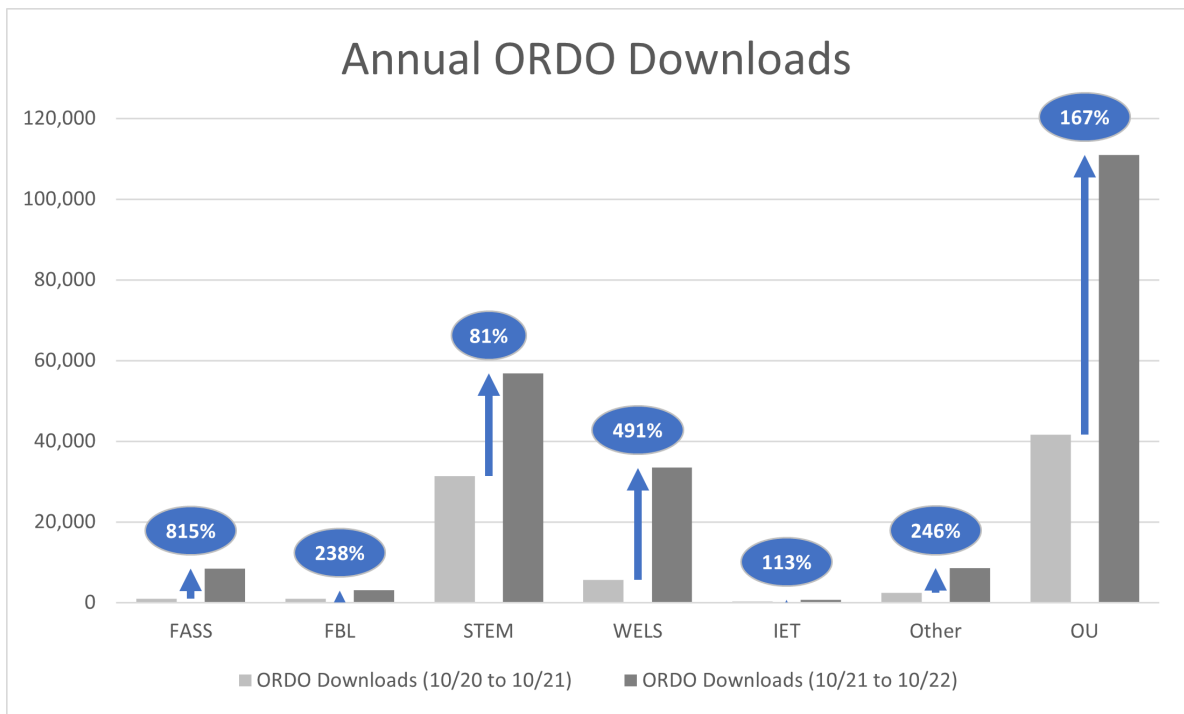
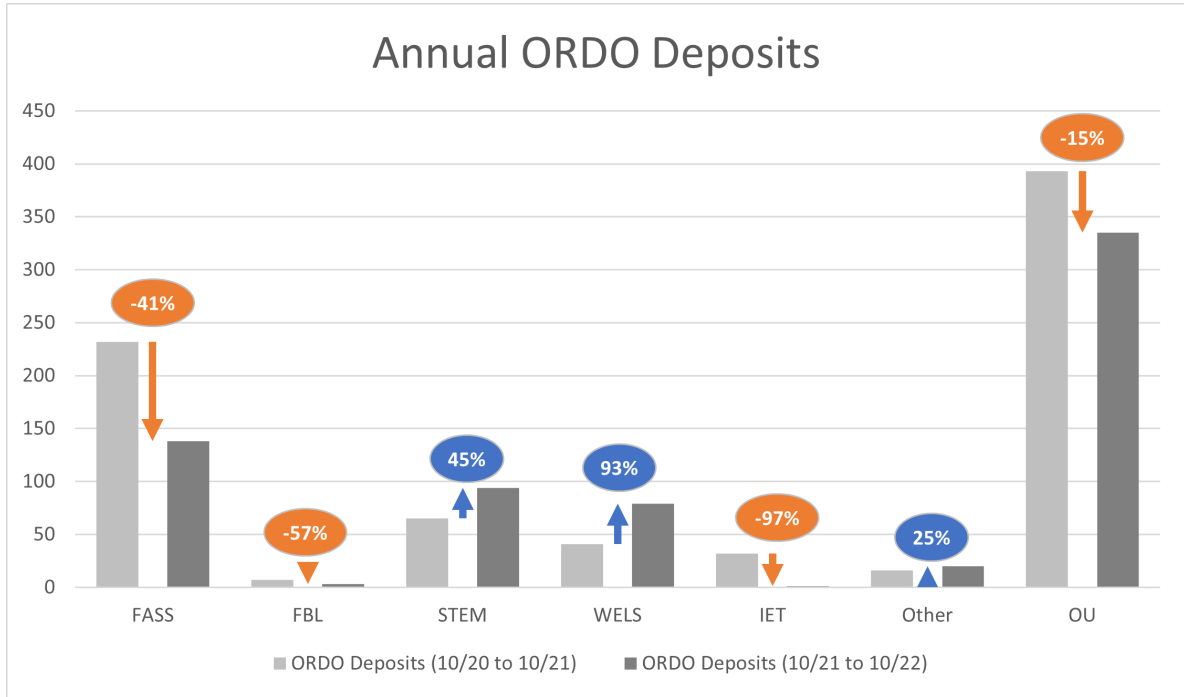
Data for July to October 2022





	ORDO Deposits			ORDO Downloads		
	2022	2021	Change	2022	2021	Change
Faculty of Arts and Social Sciences	21	50	-58%	6,226	647	862%
Faculty of Business and Law	1	0	n/a	1,674	540	210%
Faculty of Science, Technology, Engineering and Mathematics	36	15	140%	27,368	18,446	48%
Faculty of Wellbeing, Education and Language Studies	23	23	0%	7,470	3,409	119%
The Institute of Educational Technology	1	0	-100%	180	189	-5%
Other	8	4	100%	2,231	1,300	72%
The Open University	89	93	-4%	45,149	24,531	84%

Cumulative Data from October 2021 to October 2022



	ORDO Deposits			ORDO Downloads		
	2022	2021	Change	2022	2021	Change
Faculty of Arts and Social Sciences	138	232	-41%	8,477	926	815%
Faculty of Business and Law	3	7	-57%	3,016	892	238%
Faculty of Science, Technology, Engineering and Mathematics	94	65	45%	56,833	31,369	81%
Faculty of Wellbeing, Education and Language Studies	79	41	93%	33,411	5,649	491%
The Institute of Educational Technology	1	32	-97%	734	344	113%
Other	20	16	25%	8,520	2,465	246%
<i>The Open University</i>	335	393	-15%	110,991	41,645	167%

Section 4: Open Societal Challenges



In each Quarterly Review of Research we will update on progress with the Open Societal Challenge (OSC) programme. OSC is a new approach to engaged and collaborative research and knowledge exchange. New challenges are proposed by the OU Family, who will join a social network to create collaborative teams that will apply their research expertise to provide long-term

solutions.

The concept for OSC arose from our research plan survey and reflects the alignment of research and knowledge exchange with the OU's social mission. New challenges can be submitted at any time using our [online tool](#).

By the end of January 2023 over 100 new challenges had been registered.

What happens next?

After a challenge is registered on the system it is assigned to an OSC lead. The leads are responsible for four broad interdisciplinary areas.

OSC Lead Contacts

- Living Well - [Professor Sarah Earle](#)
- Sustainability - [Dr Alice Moncaster](#)
- Tackling Inequalities - [Professor Jacqui Gabb](#)
- International - [Professor Giles Mohan](#)

The challenge is then displayed on our live challenge display and is open to anyone across the OU becoming a SUPPORTER or offering to COLLABORATE. Supporters can be any OU staff or students in any part of the University and allows individuals to be kept up-to-date with progress. Research active staff can offer to collaborate and we hope to stimulate the creation of new teams drawing from strengths across all Faculties.

OSC Leads and professional staff will meet with each new challenge team and build a long-term plan of action. There are opportunities for seed funding of projects but most challenges will target external research and philanthropic funding.

Recent Progress

To follow are a few examples of projects that have been submitted to the OSC process:

[Changemakers](#) – Donna Smith, Faculty of Arts and Social Sciences

This project will explore the societal challenge of young adults' understanding of how to make political and social change in the UK as active citizens. It will consider how this can be positively impacted through the research,

development, piloting and evaluation of interventions post-secondary/compulsory education, using Wales as a case study.

[Digital Access Advisor](#) – Tim Coughlan, Institute of Educational Technology

Regardless of where they study, students with disabilities will be able to use this virtual Digital Access Advisor to discuss their needs and gain personalised guidance and support. This will provide access to the growing opportunities offered by technologies to overcome barriers to study.

Assistive technologies for education have always been able to change lives but have historically been expensive and too specialised. However, this has changed with many mainstream accessibility features in computer and mobile operating systems, and through web browsers or online services. The DAA will offer a similar dialogue-based approach to personalised support by developing a design and knowledge base that is suitable for learners in a wide variety of contexts and with a wide range of disabilities. This will build a diverse community who engage with the system and who will support continued improvement, with the assistant becoming increasingly capable of understanding individual needs and providing access to new and changing technologies.

[The UK's first National Mathematics Discovery Centre](#) – Katie Chicot, Faculty of Science, Technology, Engineering and Mathematics

This project intends to transform the public's perception of mathematics by establishing the UK's first National Mathematics Discovery Centre in Leeds City Centre to present mathematics as playful, exciting, relevant and accessible.

Aimed at children and families from diverse economic, social and cultural backgrounds, the Centre will inspire them to discover, explore and enjoy mathematical thinking and ideas. It also aims to build young people's skills, confidence and interest in mathematics and their desire to learn more.

[Writing your life](#) – Lucy Rai, Faculty of Wellbeing, Education and Language Studies

This UK wide project aims to transform social work writing so that it positively enacts professional judgements based on ethical and collaborative practice with service users.

Writing is a high stakes activity in social work practice. It determines serious decisions about the lives of the most vulnerable people in society, spanning access to services or packages of care right through to legal procedures such as the removal of children from birth parents or restriction of liberty in justice or mental health practice. Social work writing has repeatedly featured in public reports, with concerns raised about its quality and effectiveness. Diverse writing tasks account for over 60% of social workers time and this is the primary means for collecting, collating and sharing information, making recommendations to courts, funders and related professions and providing accountability for actions taken. When writing fails, social work practice fails, and lives are at stake.

[Online Violence Against Women \(ObserVAW\)](#) – Kim Barker and Olga Jurasz, Faculty of Business and Law

This project aims to lead the charge to end online violence against women and girls, through the operationalisation of Europe's first (and only) Observatory on

Online Violence Against Women & Girls, which was established at the OU in 2021. Online violence against women (OVAW) takes a myriad of forms, only some of which have been legislatively addressed across the four nations of the UK. Within 5 years, the ambition is that the Observatory evolves into a self-funded centre of academic excellence, with a world-leading reputation and numerous workstreams addressing different strands of OVAW. The Observatory is ideally placed to coordinate this work, both across the four nations of the UK, regionally within Europe and internationally, especially across Asia and Latin America.

[Contact the Open Societal Challenges team](#)

Section 5: Spotlight on Professional Services Team Achievement

Each quarter we plan to celebrate the achievements of a professional services team at the OU. This month, it is the Enterprise and Commercialisation team, part of OU Research and Enterprise team led by Gemma Maldar.

Team members, Dr Jason Baverstock, Tony Sayer, Denise Pasquet, Julia Freear and Bliss Laurence, work together to manage the University's Intellectual Property (IP) portfolio and develop Knowledge Exchange (KE) opportunities with organisations in the public and private sector.

This quarter, they are particularly proud of two achievements:

- Securing funding of £23,000 from InnovateUK to enable us to expand our Knowledge Transfer Partnership (KTP) portfolio by:
 1. developing a KTP strategy focused upon sectors and OU strengths,
 2. provision of training to increase the OUs capacity as a knowledge base, and
 3. raising awareness of OU expertise to businesses.
- The growth in external Intellectual Property (IP) income from OU Research means that, as per the OU IP policy, eight OU academics are being allocated their share of IP income from 2021/22. Historically, only one or two academics a year were in receipt of such funds and a change in team focus is now starting to deliver results.

The office, based in Pinfold building on Milton Keynes campus, soon to move to the Library, provides support to researchers (academics and students) and faculties in assessing the commercial potential of research outputs, protect and commercialise IP assets, manage the OU's patent portfolio and deliver training on KE and commercialisation.

The Enterprise and Commercialisation Team are actively supporting the development of the University's new KE Plan, which includes ambitions to grow commercial income from OU research as well as increasing the support for student, graduate and staff entrepreneurs.

Further information

- [Support for Researchers - Enterprise](#)
- [Research and Enterprise SharePoint site](#) (internal link only)
- [Innovation and Engagement](#)

Section 6: 'Next Generation' of Researchers

The Research Plan has a focus on the development of the next generation of researchers, exploring how the issues outlined in the introduction of this Review are manifest in the University and, importantly, how to address them. The aim is to create an environment for research where diverse researchers can flourish equally.

Current commitments and initiatives

There are a number of key initiatives taking place within the university that focus on equality, diversity and inclusion. The 'Next Generation' activities will explore possible overlaps with initiatives such as Athena Swan and the Race Equality Charter, as well as strengthening existing mechanisms for researchers' development. These include:

Research Career Development Concordat

The [Concordat to Support the Career Development of Researchers](#) supports organisations to provide an inclusive and positive environment for their researchers to thrive. The Researcher Development Concordat Steering Group will monitor progress and actions identified in the University's Concordat Implementation Plan, aligning these against the development and as part of their work will ensure alignment with activities of The 'Next Generation' plans.

Fellowship Academy

The OU Fellowship Academy supports the development of the next generation of independent researchers and/or a future leader in their respective discipline by providing a dedicated training programme for OU Early Career Researchers. A six-month pilot programme was delivered from September 2021 to March 2022. A further cohort is currently being recruited. An evaluation of both cohorts of the programme will inform further iterations of the Academy.

Technician's Commitment

More than 91 universities and research institutions from across the UK have backed a pledge to support their technicians. The Technician Commitment is a sector-wide initiative led by the [Science Council](#), supported by the Gatsby Foundation to help address key challenges facing technical staff working in research. The commitment will ensure greater visibility, recognition, career development and sustainability for technicians across all disciplines.

The Faculty of Science, Technology, Engineering and Mathematics (STEM) is an Employer Champion and a founding signatory of the [Technician Commitment](#). STEM is committed to progressing the career development of its staff by supporting them in their continuing professional development and ensuring that their competency is recognised by promoting professional registration.

Developing actions to address challenges for researcher development, particularly 'Next Generation'

In addition to articulating 'Next Generation' elements of existing schemes within the University, we are also discussing a number of other areas of activity including:

- Enabling participation in decision making through the establishment of citizen panels. The involvement of the whole university community is an underpinning element of the Research Plan. 'Next Generation' will embed the involvement of the university community in decision making.
- Exploring issues in research contracts to understand the issues regarding fixed term research contracts in the OU.
- Opening up access to research development – to explore possibilities for opening up access to research training outside of a conventional Postgraduate Research degree. This workstream will involve working with the Business Development Unit to explore potential for higher degree (Masters' level) research apprenticeships.
- Research careers disability initiative

It is clear from national survey data that researchers with disabilities face significant challenge in participating in, and progressing in, research careers. University data shows that the University's research-only staff are more likely to have disabilities and/or health conditions than the sector average. In addition, the University has more students with a registered disability than an average UK university has students overall. This uniquely

positions the OU with lived experience, pedagogical and research expertise to work with others to address the challenges for development of researchers with disabilities and/or health conditions.

- Equality in research careers - establishing baselines

Underpinning all activities is a focus on data to inform activity and document its impact. Work is underway to bring together institutional data about the research community in the University, specifically early career researcher to provide a baseline and inform further areas of focus.

- PGR Futures

The 'Next Generation' activities have a focus on researchers across their careers, with a specific focus on early career researchers. This includes early career and postdoc researchers as well as PGR. One element of the plan, PGR Futures, relates specifically to PGR. This is a series of activities that review of current PGR (postgraduate research, ie PhD and Professional Doctorate) programmes and strategically consider future developments.

We are currently considering how we can best enable discussion about 'Next Generation' with the University community and to communicate progress. We hope to have a dedicated 'Next Generation' space to enable feedback, including suggestions for further areas to explore, on our intranet soon.

Section 7: PGR Student Thesis Submissions

Name	Faculty/Unit/School	Thesis title
Petra Vacková	Faculty of Wellbeing, Education and Language Studies	<u>Beyond Social Inclusion, Towards Educational Justice to come: Touching, Growing, Bonding with/in/around /Artmaking in Early Years Settings</u>
Frank Banks	Education	<u>Developing the Professional Knowledge of Teachers of Technology and STEM in Secondary Schools</u>
Salfiatou Darboe	Medical Research Council Unit, The Gambia	<u>Molecular and Phenotypic Characterisation of Non-Typhoidal Salmonella Enteria Associated with Human Disease in The Gambia</u>
Awele Achi	OU Business School	<u>Social Innovation: The Construct and Antecedents</u>

Name	Faculty/Unit/School	Thesis title
Lindsay Elliott	OU Business School	Enabling collaboration in conservation: An exploration of change, diversity and funding
Maria de los Angeles Gómez Benitez	OU Business School	Global value chains in the EU: An input-output approach
Javir Ruiz Ramos	School of Engineering and Innovation	Continuous Monitoring of Environmental Disturbances by Cumulative Sums of Sense SARE Satellite Timeseries (no link to thesis available)
Eva De Valk	Department of English and Creative Writing	Acts of Terror: Representations of Terrorism o the Early Modern Stage

Spotlight on Petra Vacková's thesis: [Beyond Social Inclusion, Towards Educational Justice To Come: Touching, Growing, Bonding With/In/Around Artmaking In Early Years Settings](#)

[Petra Vacková](#), a PGR in the Centre for Research in Education and Educational Technology, addresses how social inclusion could be created to counteract educational inequalities through artmaking. The aim of this study is to develop a research practice which involves both children and adults in artmaking activities in a way that creates life-sustaining moments that work towards the realisation of fair and just educational futures.

Section 8: Research Bidding and Income

Over the whole of 2021/22 OU research staff submitted £112.2 million of bids, which is 106% of the average for the previous four years. Over the same period, £15.9 million was awarded, which is 101% of the average for the previous four years. Research income grew to £17.7 million, which is 112% of the average for the previous four years.

Further tracking of research bids and income is [available for OU staff](#) (internal link only).

Recent Grant Awards

In this quarter there were 10 awards of £200,000 or greater

Faculty	Project title	Funder	Value
FBL	CPRL Project Bluestone 2 - Year 2 (WP4)	MOPAC	£1,093,240
STEM	EPSRC DTP 2022/23/24	EPSRC	£953,938
IET	Enable eVeryone's Engagement in the eneRgY transitiON	EC H2020	£621,436

Faculty	Project title	Funder	Value
STEM	Delta Testing, Calibration and Analysis Activity for SXI CCDS	ESA	£447,004
FASS	Gender Equitable Interactions Online (GEiO): Supporting gender equity in work-based	EC H2020	£408,683
FASS	Open-Oxford-Cambridge DTP (AHRC) Cohort	AHRC	£311,146
STEM	Euclid UK Science Ground Segment Bridging Grant Phase III	UKSA	£272,516
STEM	Augmenting participation, co-creation, trust and transparency in Deliberative Democracy at all scales	EC H2020	£271,617
FBL	CPRL Police diversion and drugs (PDD): collaborative evaluation of the effects and cost effectiveness of police diversion of people who use drugs	Cabinet Office	£225,532

Faculty	Project title	Funder	Value
STEM	A synergy of water and dust on Mars (yr 2-3)	UKSA	£216,403

