TAKE 2026

HOSTED BY

Universidade Lusófona de Humanidades e Tecnologias (ULHT)

TAKE 2026

TAKE 2026 – ARTIFICIAL INTELLIGENCE, KNOWLEDGE, EDUCATION AND CITIZENSHIP IN THE POST-COVID-19 SOCIETY

CONFERENCE BOOK OF ABSTRACTS

TABLE OF CONTENTS

TABLE OF CONTENTS 1
1 KEYNOTE SPEAKERS 7
1.1 Prof. Jonathan Winterton 7
1.2 Dr. Mitt Nowshade Kabir 8
1.3 Dr. Nik Gowing 9
1.4 Prof. Olivier Bonnaud 11
1.5 Prof. Vincent Ribiere 12
2 Special sessions 13
2.1 Gallery of Art 13
2.2 Knowledge Café 13
2.3 On Achieving Professional Excellence in an AI-Driven Knowledge Economy . 13
2.4 Achieving Professional Excellence in an AI-Driven Knowledge Economy 13
2.5 The Power of Illustrations Peter sharp 14
2.6 Artificial intelligence and Ignorance Anthony Wensley 14
3 Workshops 15
3.1 Ethics Cases – Workshop convened by Darlene Russ-Eft and Vincent Ribiere – Tuesday July 7th 15:00 Use of Case Studies in Ethics and Human Resource Development 15
3.2 KM Changer convened by Vincent Ribiere 16
4 Articles 17
4.1 A call to reduce organisational stress in South African local government through an emerging leadership style 17
4.2 Accountability, Compliance, and Organizational Innovation: The Portuguese Case 19
4.3 AI-Based Analysis of Satellite Air Pollution Data and Public Trust: Evidence from the Maritsa East Energy Complex 20
4.4 AI, social media, and the standardization of meaning in post-Covid marketing: a managerial perspective on knowledge 22
4.5 A Network Performance Evaluation of TCP/UDP with 5G Technology and Data Transferring Techniques on VPNs 26
4.6 Antagonistic synergy 29
4.7 A review of learning and development through participation in project work: a reflective case study 32
4.8 Artificial Intelligence in Human Resources Development 35
4.9 Augmenting the SECI Model with Artificial Knowledge Created by Generative Artificial Intelligence (GenAI) 38

4.10 Bank Opacity, Risk-taking Behavior, and Solvency of the Top 20 Universal and Commercial Banks (UKBs) in the Philippines 39

4.11 Between Innovation and Regulation: Stakeholder Misalignment in Technology-Based Self-Directed Learning Policy in the Lithuanian 40

4.12 Beyond Automation: A Framework for Human-Augmented Business Models and the Mitigation of the Augmentation Paradox in Industry 4.0 43

4.13 Beyond the age: technology attitude as a stronger predictor of FinTech barriers among Silvers 45

4.14 Borderless but Not Leaderless: A Conceptual Model of Boundary Spanning Leadership for Global Knowledge Ecosystems 48

4.15 Can cognitive bias be linked during the decision-making process when organizations adopt technology: Exploring the current landscape 50

4.16 Challenges and opportunities of using AI interviews in the selection function: from the human resources management perspective. 52

4.17 Collaboration as a Strategic Response to Climate and Weather Risks in Food Supply Chains: A Literature-Based Framework 53

4.18 Consigned Capital 59

4.19 Deconstructing the ESG Paradigm: A Comparative Bibliometric Mapping of Environmental, Social, and Governance Research in Accounting 62

4.20 Designing Contemporary Third Places in Rural Austria: A Design-Based Inquiry through the Stammtisch.xyz Prototype 65

4.21 Development and evaluations of AI-enhanced ecosystems: Lessons from interorganizational collaboration 69

4.22 Developing an AI-Extended approach in Universities: Evidence from the School of Economics and Organisation Sciences – Lusófona University, Portugal 70

4.23 Digital money: implications on economy and financial innovations 72

4.24 ECO-INNOVATION VS. ECOLOGISM 77

4.25 Economic Growth, Energy Mix and CO_2 Emissions: Island-by-Island Environmental Kuznets Curve Evidence from the Azores 78

4.26 Enhancing AI-Based Automation Adoption in the South African Clothing Manufacturing Subsector: 'Blue-Collar' Employee Perceptions and Organisational Recommendations 80

4.27 Enhancing collaborative decision-making processes with intelligent agents 82

4.28 Enhancing Relevance of Higer Education Initiatives for Change in Organizations 85

4.29 Epistemic Resilience under Pressure: Designing Lightweight AI Governance in Craft and Trade SMEs 88

4.30 ESF in Portugal – an assessment (2009-2023) 90

4.31 Film O'Clock Industry Hub: Facilitating Professional Networking and Intercultural Learning through a Digital Platform 91

4.32 From Custodians to Facilitators: A Participatory Framework for Co-Curating Ephemeral Heritage in Academic Libraries 95

4.33 From Family Values to Digital Futures: How Socioemotional Wealth Shapes Strategic Transformation in SMEs 98

4.34 Generative AI, Deepfakes and Digital Literacy - Educational Strategies on Digital Content Literacy for Democratic Sustainability and Resilience 102

4.35 Governance and Ethics in Portuguese Municipal Administration: Institutional Challenges and Pathways to Public Integrity 104

4.36 How Geography and Economics Shape University ESG Scores 105

4.37 How the Horizontal and Vertical Individualism and Collectivism Influence Maximizer/Satisficer Decision-Making, Entrepreneurial and Social Entrepreneurial Intentions in Portugal: Study 4 107

4.38 Impact of Self-Awareness on Coach Development 108

4.39 Impact of Socio-Economic Factors on Human Development: A Dynamic Panel Analysis of African Rural and Urban Contexts 110

4.40 Innovation financing for SMEs: combining private and public funding..... 112

4.41 Knowledge-Based Resilience: A Systematic Review and Multidimensional Framework for Knowledge Management 113

4.42 Knowledge Transfer - Developing Growth Mindsets through Coaching 117

4.43 Leading in the Algorithmic Globe: A Conceptual Framework of AI Enabled Leadership for Intangible Competitiveness 119

4.44 Leading the Sustainable Hybrid: A Conceptual Framework of Leadership, AI and Intangible Conditions for Sustainable Digital Work 122

4.45 Logistics in the Era of Artificial Intelligence 125

4.46 Managing Personal Intellectual Capital for Professional Excellence: The Artificial Intelligence Contribution 126

4.47 Measuring Eco-Innovation Efficiency Across OECD Countries Using Data Envelopment Analysis 129

4.48 Mind the Gap: Exploring AI Expectations of Librarians and Patrons at the University of Malta in the Gen-AI Era 131

4.49 Navigating the Paradox: Artificial Intelligence, Humanization and the Challenge of Decision-Making in an Increasingly Complex Society 135

4.50 Neural Architecting in the Digital Era: A Neuro-AI Framework for Sustainable Leadership and Organizational Flourishing 136

4.51 Orchestrating Hybrid Local Ecosystems through Value-in-Use: A LivePBL Model from China Based on Mixed Action Research and Social Community Practice..... 137

4.52 Organizational learning as a strategic resource driver in school management 140

4.53 Perceptions of Portuguese employees on the effectiveness of Internal Communication 142

4.54 Replacing the triple helix with the cats cradle 145

4.55 Rooted Yet Restless: Why Expat Academics Stay Abroad? 146

4.55 Silence, Voice and Algorithms: A Conceptual Model of Leadership, Employee Voice and AI-Mediated HRM 149

4.56 Simulation-based Learning in Undergraduate Business & Management Education: Exploring Learner/Student Engagement Effects 151

4.57 Strengthening Fragile Bridges in KM/IC Research and Building Stronger Foundations – Possible Directions for Future KM/IC Research. 153

4.58 Sustainable Finance: Challenges and Opportunities 155

4.59 The Academic Library as Co-Producer of Transdisciplinary Engagement: A Social Exchange Framework for Resource Mobilization and Outreach 159

4.60 The Conceptual Model of the CSR in Moroccan SMEs 161

4.61 The design and teaching of an IC course in the times of AI 162

4.62 The Erasmus Programme and the Development of Human Capital in Portugal 165

4.63 The Evolution of Immigration in Portugal: A Comparative Analysis of Immigrant Populations in 1990 and 2024 166

4.64 The “Keep Going, Don’t Give Up!” Project as a Strategy for Promoting Academic Success and Preventing Dropout in Vocational Education: A Case Study of the Santo António School Cluster. 167

4.65 The political ecology of AI between sustainability and digital progress 170

4.66 The Role of FinTech in Financial Services: A Review of Adoption and Performance Impacts 172

4.67 The role of researcher’s motivation and self-efficacy on University-Industry collaboration 175

4.68 The ‘Quest for the Irrational’ in Firms: The Dalinian Paranoiac-Critical Method for Innovation and Technology Management 177

4.69 When depopulation and ageing reinforce each other: towards a research framework for metropolitan areas 178

4.70 Where Does Alpha Live? Volatility-Conditioned Timing in European Equities 180

4.71 Women in leadership and the social representations of women´s performance in leadership roles 183



1 KEYNOTE SPEAKERS

1.1 Prof. Jonathan Winterton

Leeds University Business School, Leeds, United Kingdom

Keynote: The juncture of HRD, labour economics and knowledge management

Bio: After an apprenticeship as a technician instrument maker,prof. Jonathan Winterton studied at the Industrial Technology at the University of Bradford, followed by a Masters in Industrial Relations at the London School of Economics and a doctorate from the University of Leeds. Winterton taught in the Engineering Faculty at Bradford, then moved to Bradford Management Centre before being appointed to his first Chair at Napier University, Edinburgh, to establish and lead the Employment Research Institute in 1997. In 2000 Jonathan moved to Toulouse Business School as the first Director of Research and after 10 years assumed responsibility for International Development. In 2015 he has moved to Borneo as Dean of the Faculty of Business at Curtin University in Sarawak, moving after two years to Peninsular Malaysia as Executive Dean of the Faculty of Business and Law at Taylor's University. Jonathan Winterton returned to the UK in 2019 as Head of the Department of Management at Huddersfield Business School and took up as Head of the Work and Employment Relations Division at Leeds University Business School in August 2020.

1.2 Dr. Mitt Nowshade Kabir

EMLV – École de Management Léonard de Vinci, Paris, France
CEO of Trouvus

Keynote: Artificial General Intelligence and the Future of Humanity

Bio: Dr. Mitt Nowshade Kabir is an internationally recognized authority on artificial intelligence, digital transformation, and knowledge-based innovation, with over three decades of experience operating at the intersection of advanced technology, business strategy, and entrepreneurship. He is the Co-founder and CEO of Trouvus, an AI-driven digital transformation firm that advises organizations on the design and deployment of applied AI, data-centric strategy, and intelligent operating models. His work spans Fortune 500 companies, high-growth startups, and public-sector institutions, where he has helped translate emerging AI capabilities into measurable business and societal impact.

Dr. Kabir also served as an Adjunct Professor of Digital Transformation at École de Management Léonard De Vinci (Paris), where he taught AI-driven business transformation, innovation strategy, and digital ecosystems. His academic contributions include more than 30 peer-reviewed publications with over 800 citations, and the widely referenced book Knowledge-Based Social Entrepreneurship (Palgrave Macmillan), which explores innovation and value creation in knowledge economies. As an entrepreneur, Dr. Kabir has founded and scaled multiple technology ventures. He was the Chairman of Rusbiz a global B2B marketplace that grew to over 300,000 users worldwide, and the founder of Flerika, an AI-enabled social commerce platform. Across these ventures, he pioneered early applications of AI-based recommendation engines, semantic search and data-driven personalisation—driving significant gains in engagement and conversion.

Beyond academia and entrepreneurship, Dr. Kabir is a sought-after keynote speaker and advisor on AI strategy, agentic systems, AGI trajectories, and the future of digital organizations. He has chaired international conferences in AI and robotics, advised governments on digital innovation and e-government policy, and mentored and invested in AI-driven startups across emerging technology sectors. At the core of his work is a central thesis: AI is no longer merely a tool for optimization—it is becoming cognitive infrastructure. Dr. Kabir's keynotes challenge leaders to rethink strategy, governance, and human-machine collaboration in an era where intelligence is increasingly distributed, autonomous, and generative.

Speaking Topics Include:

- AI Strategy Beyond Automation
- Agentic AI and the Future of Organizations
- Digital Transformation as Cognitive Re-Architecture
- Knowledge, Power, and Value in the Age of Generative Systems
- Human–AI Co-Creation and the Future of Work



1.3 Dr. Nik Gowing

https://thinkunthink.org/

Keynote: Thinking the Unthinkable in regarding Intangibles

Bio: Nik is a Distinguished Fellow at the Royal United Service Institute, London. He was a RUSI Trustee 2016-21. Previously he was a member of the RUSI council for ten years. Since 2014 Nik has been founder and director of the Thinking the Unthinkable (TTU) project. Using interviews with, and access to, the highest levels of business, public service and governments the ongoing and dynamic project reveals candidly why so many leaders at every level face new difficulties adapting to the scale of unthinkables and unpalatables.

Against the analytical consensus, the TTU project predicted inter alia in 2016 a vote for Brexit and the nomination then election of Donald Trump as US president. The fast growing challenges to leaders in the dramatic disruption to 'normal' was further confirmed by the pressures facing leaders when COVID-19 hit so brutally and speedily in early 2020. The Climate emergency is fast adding further intense pressures from new realities that most think are unthinkable. The Russian invasion of Ukraine was an inevitable unthinkable which the TTU project foresaw. Until 2014 Nik was a main news presenter for the BBC's international 24-hour news channel BBC World News 1996-2014. He presented The Hub with Nik Gowing, BBC World Debates, Dateline London, plus location coverage of many major global stories. He is best remembered for his many hours of live coverage of Princess Diana's car crash in Paris in August 1997, making the announcement of her death, then the unfolding horrors of the 9/11 terror attacks in the US.

For 18 years he worked at ITN where he was bureau chief in Rome and Warsaw, and Diplomatic Editor for Channel Four News (1988-1996). He collected a BAFTA award for breaching media controls to cover martial law and the crushing of Solidarity in Poland in 1981. He reported for TV much of the drama in Eastern Europe and the rapid crumbling of Soviet power up to the sudden end of the Berlin Wall in 1989 and the coup in Moscow in 1991.

Nik has been a member of the councils of Chatham House (1998–2004), the Royal United Services Institute (2005–2021), and the Overseas Development Institute (2007-2014). The Foreign Office appointed him to the board of the Westminster Foundation for Democracy where he became vice chair (1996-2005) plus the advisory council at Wilton Park (1998-2012). In 1994 he was a fellow at the Joan Shorenstein Barone Center in the J. F. Kennedy School of Government, Harvard University. He was a board member for the Hay Literary Festival 2004-2018 and is now a trustee for the festival's new charitable status.

Nik had extensive reporting experience over three decades in diplomacy, defence and international security. He has a much sought-after analytical expertise on the failures to manage information in the new digitally transparent environments of conflicts, crises,

emergencies and times of tension. His peer-reviewed study for the Reuter Institute at Oxford University Skyful of Lies and Black Swan (2009) predicted and identified the new vulnerability, fragility and brittleness of institutional power in what would soon become the new all-pervasive public information space. The work built on his earlier research in the Kennedy School at Harvard. Current developments have confirmed all that his cutting-edge work warned about.

Since 2014 Nik has been a Visiting Professor at Kings College, London in the School of Social Science and Public Policy. From 2016 to 2018 he was a Visiting Professor at Nanyang University (NTU) in Singapore where he worked on deepening and widening the Thinking the Unthinkable research project. He was a member of the World Economic Forum's Global Agenda Council on Geo-Economics (2014- 16). In September 2017 he was appointed an adviser on leadership challenges to the President of the UN General Assembly He was awarded Honorary Doctorates by Exeter University in 2012 and Bristol University in 2015 for both his ongoing cutting-edge analyses and distinguished career in international journalism. Nik has written two acclaimed novels, The Wire and The Loop which reflected his many years reporting behind the Iron Curtain and in Russia.

1.4 Prof. Olivier Bonnaud

Professor Emeritus at the University of Rennes, Rennes, France

Keynote: “Three months of negotiations with senior government officials over an 8-cent rounding error”

Bio: Olivier Bonnaud, a graduate of the Ecole Normale Supérieure Paris-Saclay, with a doctorate in microelectronics, became a full professor at the University of Rennes 1 and at Supelec (Grande Ecole) in 1984, where he created a research laboratory (Microelectronics Laboratory that he directed until 2013, when he became professor emeritus. Founder in 1985 of a joint regional microelectronics center, he directed it until 2010, when he was appointed by the French minister as director of the National Coordination for Microelectronics and Nanotechnology Education, a network of 12 French training centers that he still directs today. He has supervised 43 PhD students and has published or presented 380 international papers. He has been invited more than 40 times and is a keynote speaker in international conferences. He has negotiated and conducted 70 research contracts and agreements, participated in more than 100 scientific committees of international conferences, organized or co-organized 13 international congresses and 18 national conferences, participated in 300 thesis and research supervision juries (100 as President). and was international and national expert in many research and educational programs.

1.5 Prof. Vincent Ribiere

Bangkok University the Institute for Knowledge and Innovation Southeast Asia (IKI-SEA)

Keynote: What We Can Learn from the 2025 Global Most Innovative Knowledge Enterprise (MIKE) Award Winners

Bio: Dr. Vincent Ribiere is an enthusiastic and creative international consultant and professor with a passion for helping organizations solving their organizational knowledge and innovation management challenges. He is the Founder and Managing Director of the Institute for Knowledge and Innovation Southeast Asia (IKI-SEA), a center of Excellence at Bangkok University as well as the Program Director of the Ph.D. in KM and Innovation Management. He has also co-founded various internationals events in the fields of Business Creativity and Innovation (Creative Bangkok, ASCIM, CreativeMornings Bangkok, G-LINK) and he co-founded various communities of KM and Innovation academics and practitioners nationally (iKlub, Thai KM Network) and Internationally (KM Global Network).

Vincent has a strong entrepreneurial spirit, and he enjoys sharing his knowledge and experiences. He delivers keynote speeches and workshops at various International Professional and Academic conferences, and he is the Author of more than 80 publications.

2 SPECIAL SESSIONS

2.1 Gallery of Art

1) Art Session Gallery of Art – by fellow artists Dr Peter Sharp, Karen Dix and Blazenka Knezevic – Monday – July 6th 15:00 to 16:00

2.2 Knowledge Café

Eduardo Tomé

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2.3 On Achieving Professional Excellence in an AI-Driven Knowledge Economy

Prof. José María Viedma Martí & Dr. Marisol Hurtado Illanes

2.4 Achieving Professional Excellence in an AI-Driven Knowledge Economy

Professors Marisol Hurtado & Jose Maria Viedma Wednesday 7th 9h 30- 10h 30m

The rapid development of artificial intelligence is transforming the nature of professions in the knowledge economy. Tasks traditionally performed by highly qualified professionals are increasingly supported—or partially replaced—by AI systems, redefining required skills, career trajectories, and strategic positioning. In this context, achieving professional excellence is no longer solely a matter of acquiring knowledge or technical expertise. It increasingly depends on the ability to make strategic choices regarding what to do, where to do it, and within which economic and institutional environments to develop one's career. This session explores how individuals can navigate this transformation by combining insights from Intellectual Capital with emerging perspectives on professional excellence in complex and fast-evolving environments. Prof. José María Viedma Martí will introduce the foundations of Intellectual Capital and analyse how artificial intelligence is reshaping professions, highlighting the importance of strategic positioning and alignment between capabilities, motivations, and opportunities. Dr. Marisol Hurtado Illanes addresses a central and unresolved challenge in contemporary knowledge environments: how individuals sustain direction and consistency in their actions over time under conditions of uncertainty, acceleration, and increasing structural complexity. Across domains, a shared condition becomes evident: individuals are required to act continuously in contexts where knowledge is abundant,

yet direction is not given. In AI-mediated environments, this condition intensifies, as expanding access to information coexists with fragmentation, cognitive overload, and rapidly shifting decision contexts. This reveals a fundamental limitation in prevailing approaches. The availability of knowledge, resources, or capabilities does not in itself lead to effective action or sustained professional direction. The core issue, therefore, is not knowledge itself, but the capacity to sustain direction and continuity in what individuals do over time. This perspective reframes professional excellence as a problem of how knowledge translates into action in practice, establishing a new line of inquiry within Intellectual Capital at the individual level.

Structure (60 minutes)

• Intellectual Capital, AI, and the transformation of professions

(Prof. José María Viedma Martí)

• Professional excellence as sustained direction and consistency in action in complex environments

(Dr. Marisol Hurtado Illanes)

• Interactive session: application to a real-life professional decision-making case

(María José Hurtado)

2.5 The Power of Illustrations Peter sharp

2.6 Artificial intelligence and Ignorance Anthony Wensley

3 WORKSHOPS

3.1 Ethics Cases – Workshop convened by Darlene Russ-Eft and Vincent Ribiere – Tuesday July 7th 15:00 Use of Case Studies in Ethics and Human Resource Development

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Abstract:
During this Session, participants will experience and discuss cases from the Russ-Eft et al. (2026) book titled Case Studies in Ethics and Human Resource Development. Selected case authors will present the case. The session will then engage audience members in interactive discussions regarding each case with the respective author and panelists. Working in small groups, participants will discuss the issues and dilemmas and suggest which ethical standards may apply – from the Academy of Human Resource Development (AHRD) Standards on Ethics and Integrity and from the Chartered Institute of Personnel and Development (CIPD) Code of Conduct. The session will close with participants discussing possible approaches to integrating such cases into HRD research and practice. Keywords: ethics, HRD, case studies, AHRD Standards on Ethics and Integrity, CIPD Code of Ethics

3.2 KM Changer convened by Vincent Ribiere

Tuesday July 7th 11:00 to 12;30 – LIMIT OF 10 PARTICIPANTS

Vincent Ribiere
vribiere@gmail.com Thiland Bangkok University
the Institute for Knowledge and Innovation Southeast Asia (IKI-SEA)

Step into the Role of a KM Manager in this Engaging Serious Game.

In an organization represented on the game board, a new Knowledge Management (KM) policy is being implemented with ambitious objectives over a three-year period. The newly appointed Knowledge Manager team must carry out this mission. Their goal is to capture the knowledge of the 40 employees (represented as game pieces on the board).

However, they will face multiple challenges: some pieces escape the board as knowledge dissipates, some employees resist the KM policy, and others are poached by competing companies. This creates a race against time.

In addition, 70 action cards influence the game, altering the course of events—some benefiting KM efforts, while others contribute to a "brain drain."

Will the Knowledge Manager succeed in their mission? What strategy should they adopt to at least secure the most critical skills? These are the challenges participants will experience in this game.



4 ARTICLES

4.1 A call to reduce organisational stress in South African local government through an emerging leadership style

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Author keywords: Human capital investment Organisational stress Transcendental leadership

Abstract:

a) purpose

The aim of this study was to identify the type of leadership style most suitable to enable employees to relieve work stress in order to enhance productivity and lead to purposeful achievement of goals. Through an inductive approach this paper aimed to analyse whether transcendental leadership can be applied to reduce organisational stress leading to increased performance and productivity.

b) design/methodology/approach

Executive leadership consisting of a total population of 63 individuals in eThekwini Municipality in South Africa, underwent voluntary in-depth semi structured interviews. A sample of 22 Senior Executive officials were purposefully selected based on their expertise and years of experience in the local government space. A group of 11 were nominators and 11 nominees of the local government municipality were interviewed. The study adopted a qualitative research design that leveraged in-depth, semi-structured interviews to capture rich, contextual insights into leadership perceptions and experiences. The online, one-on-one interviews were recorded, transcribed, and thematically analysed to identify emergent patterns, ensuring methodological rigour and the accurate representation of participant voices while maintaining researcher neutrality.

c) theoretical base

Many reports and theories have shown how various leadership styles address the challenges we face today; however little attention was focused on the stresses and strains employees face to ensure a good quality work life for better performance. Whilst most organisations today, (private and public) look to wellness and fitness programmes in the workplace to treat stress symptoms, there is a dire need for a more holistic sense of well-being. The concept of transcendental leadership from business leadership literature shows that this style of leadership as an emerging leadership style. Although it displays many implementation models, it still seeks to justify whether such style can or should be implemented.

d) results or expected results

The findings revealed that the current leadership style was autocratic, fragmented, inconsistent and compliance driven. Interviewees linked these prevailing leadership styles to high stress levels, low morale, limited innovation, and weakened organisational performance. Fear-based and authoritarian leadership approaches were seen as counterproductive. Interviewees mentioned that the desired leadership approach was more of being people centred, empathetic, ethical and consultative.

e) originality/value

This qualitative study proposes that transcendental leadership will create more coherence in leaders in terms of their well-being and in turn will reciprocate in their employees and organisation. This alignment is posited to more effective leadership in achieving the Integrated Development Plan goals which contributes to achieving the broader Sustainable Development Goals.

f) practical implications

Leadership challenges identified are not unique to the organisation under study; however, based on the interviews conducted, fear-based leadership must be reduced to promote psychological safety for employees in the workplace. While pockets of effective, people-centred leadership exist, these are isolated and not institutionalised. A new emerging leadership style designated as transcendental leadership needs to be considered as a tool to enhance the quality of work for both leaders and their employees.

4.2 Accountability, Compliance, and Organizational Innovation: The Portuguese Case

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Author keywords: Accountability, Compliance, Organizational innovation, Public administration, Administrative discretion, Portugal, Organizational learning

Abstract:

The increasing complexity of public action has reinforced the centrality of the concepts of accountability, compliance, and organizational innovation in public management research. Recent literature in leading journals, such as the Journal of Public Administration Research and Theory, Public Administration Review, and Public Management Review, indicates that formal control and compliance mechanisms, while essential to ensure legality and integrity, may simultaneously constrain the innovative capacity of public organizations. This article critically examines this tension in the context of Portuguese public administration, characterized by a strong legalist tradition, high normative compliance requirements, and increasing pressure for administrative modernization and innovation. Based on an analytical review of international and European literature, the study explores how different models of accountability, hierarchical, horizontal, and social, influence organizational behavior, compliance practices, and the scope of administrative discretion. It is argued that, in the Portuguese case, the predominance of ex ante control mechanisms and a risk-averse culture tends to favor formal compliance at the expense of organizational innovation. This article contributes to the academic debate by linking recent international literature with national institutional specificities, providing analytical insights for future empirical research on how collaborative networks, organizational learning, and more reflexive forms of accountability can balance integrity, performance, and innovation in Portuguese public management.

4.3 AI-Based Analysis of Satellite Air Pollution Data and Public Trust: Evidence from the Maritsa East Energy Complex

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Author keywords: Environmental risk communication, Remote sensing, Explainable artificial intelligence (XAI), Environmental governance, Ecological citizenship, Digital literacy and media literacy

Abstract:

Air pollution remains one of the most serious environmental and health problems of modern industrial societies. Coal-fired power plants are among the primary stationary sources of sulfur dioxide (SO2) and other pollutants. In Bulgaria, the Maritsa East power plant is both the backbone of the energy system and a symbol of the long-standing tension between energy security, economic development and environmental protection, and also of how technology affects public trust, risk perception and the legitimacy of environmental policies. The central claim is that satellite-based air quality analysis provides a powerful tool for identifying pollution sources in an independent, localised, and timely manner. However, its social impact depends not so much on the accuracy of the algorithms but on how the results are communicated, interpreted and integrated into institutional governance processes. In the context of distrust in regulatory agencies, typical of post-communist societies, even the most accurate data can be rejected, questioned, or selectively used in political and economic conflicts. The article uses analysis of satellite data from the Sentinel-5P/TROPOMI mission to concentrate SO2 over the Maritsa East region as an empirical framework, together with groundbased measurements from automatic measuring stations and meteorological information on wind direction and speed. The relationship between recent emission peaks, power plant operating modes, and the potential areas of greatest risk to the population is investigated. The first analytical part discusses the role of satellites in modern air pollution monitoring. Satellite monitoring overcomes the limitations of point-based geometry and offers a unique opportunity for autonomous emission control. Machine learning algorithms enable automatic detection of anomalies, quantification of background concentrations from industrial sources, and assessment of the geometric and temporal dynamics of pollution. In the case of Maritsa East, this translates into regional SO2 loadings under different concentration conditions, including low wind and temperature variations when the risk to the population is highest. The second part,

which can track the contribution of individual power plants, addresses the limitations and uncertainties of the AI-based approach. The geometric resolution of satellite data, the effect of cloud cover, the vertical distribution of pollutants and the need for correlation with ground-based measurements create methodological challenges. Furthermore, algorithms inherit biases in the input data: if ground-based observations are unevenly distributed or subject to institutional influences, this can affect the training and interpretation of this model, and therefore, technical reliability is not only a technical issue, but also a function of the institutional environment in which the data are collected and validated. The historical experience of communities in the "Maritsa East" region – chronic pollution, contradictory public messages, and perceived conflicts of interest between the state and the energy sector – creates an environment highly sensitive to new measurements. Firstly, AI-based pollution maps can serve as an "objective witness" to reveal underestimated risks. Secondly, they could be a new therapeutic tool where algorithms are misunderstood and potentially manipulated by the very people who are not trusted. The article argues that the main issue is not whether AI is more accurate than traditional methods, but whether its results are institutionally legitimate and transparent in communication. According to the IIE, the vision of unfulfilled access to security for those who are not property owners, but instead deliver goods that are slightly less stable, is also essential. The involvement of local communities, NGOs, and independent scientific teams in interpreting the results and discussing their political implications is also essential. Particular attention has been paid to the concept of "ecological citizenship" in the digital age. Access to satellite maps and interactive visualisations creates new opportunities for citizen governance, journalistic research and public pressure. At the same time, a high level of scientific and digital literacy is required to avoid mistaking pixel anomalies as "evidence" of a catastrophe or vice versa, to process real risks as "artefacts of algorithms", and to invest in media literacy. There are three main conclusions presented. First, the analysis of satellite data based on artificial intelligence represents a qualitative leap in the ability to detect and localise industrial emissions in complex energy systems such as "Maritsa East". Without integrating technological innovation, institutional change, and communication policies, there is a risk that artificial intelligence will deepen existing doubts rather than dispel them. The article provides a framework for using artificial intelligence as a bridge between scientific knowledge and ecological citizenship: through open data, explanatory models, collaborative interpretation and a clear link between evidence and policy. The "Maritsa East" case is a symbolic example of how AI can simultaneously strengthen environmental responsibility and create new challenges for public trust in the era of digital governance.

4.4 AI, social media, and the standardization of meaning in post-Covid marketing: a managerial perspective on knowledge

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Author keywords: artificial intelligence, social media marketing, standardization of meaning, knowledge, management.

Abstract:

a) Purpose

The purpose of this paper is to analyze how the use of artificial intelligence (AI) in social media marketing contributes to the standardization of meaning in the post-Covid context and to explore the managerial implications of this process on consumer knowledge. The paper aims to highlight how the mix of AI and social media platforms becomes a mediator of knowledge, influencing not only consumer decisions but also the way individuals understand, internalize, and normalize certain practices, values, and consumer behaviors.

b) Design/methodology/approach

The study adopts a qualitative approach, based on semi-structured interviews with marketing managers, marketing specialists, and brand communication professionals directly involved in the use of artificial intelligence in social media marketing activities. This approach allows for the exploration of perceptions, practices, and managerial decisions associated with the use of AI, as well as the analysis of how meaning is constructed, standardized, and conveyed through AI-assisted marketing content.

c) Theoretical base

The paper draws on recent literature on the use of artificial intelligence in marketing, which highlights the role of AI in increasing efficiency, message consistency, and the



ability of organizations to adapt to dynamic digital environments. In addition, theoretical perspectives on the role of algorithms and social media platforms in the circulation of knowledge and the standardization of public discourse are integrated, highlighting how these technologies favor the reproduction of dominant patterns of meaning. The theoretical approach is complemented by literature on knowledge management and managerial responsibility in marketing communication. Thus, the study begins by discussing the fact that the post-COVID-19 context has significantly accelerated the adoption of artificial intelligence (AI) in marketing practices: 56% of marketers acknowledge active adoption of AI in their companies' practices, mainly for content creation and optimization, message and offer personalization, idea generation, automation, social media monitoring, and data analysis (Survey Monkey, 2025). Previous academic studies have discussed how AI is used in marketing to increase efficiency, message consistency, and adaptability to dynamic digital environments (Davenport et al., 2020; Haleem et al., 2022), but the implications of AI use on the construction and circulation of meaning remain insufficiently analyzed, especially from a managerial perspective on knowledge (Marvi et al., 2025). This issue is amplified by the shift in consumer attention to short-form video-based social media platforms, such as TikTok, where AI-generated or AI- assisted content is increasingly common. In this context, marketing is becoming more than ever an important channel for the production and transmission of consumer knowledge, influencing the way individuals understand and internalize information—80% of TikTok users, for example, consider products and services they would not have previously thought of because they see them on the platform (WARC & Publicis, 2021). The AI-social media mix thus becomes a mediator of consumer knowledge through frequency, repetitive formats, and recommendation algorithms (Beer, 2021), contributing to the normalization of certain consumption practices, aesthetic standards, care routines, or behaviors related to health, lifestyle and different consumption habits (Brady et al., 2023; Su, 2025). AI-generated marketing content for dissemination via social media tends to offer "clear" solutions (a favorite term of generative AIs) and simplified explanations, which facilitates their internalization by the public but at the same time limits the plurality of perspectives.

d) Results or expected results

The interview results show that the use of artificial intelligence and social media algorithms in marketing is perceived primarily as a tool for efficiency, speed, and operational consistency, especially in post-Covid digitalized work environments. Across different organizational contexts, AI is integrated mainly as a support instrument for documentation, content ideation, synthesis, and preliminary copywriting, rather than as an autonomous generator of meaning. However, respondents consistently highlighted that AI-generated or AI-assisted content tends to favor standardization of discourse. This

tendency is amplified in social media environments, where repetition and algorithmic optimization further reinforce uniform messages and visual styles across brands. From a knowledge perspective, these practices facilitate rapid understanding and perceived clarity for consumers, but they also limit exposure to diverse perspectives and reduce



opportunities for critical engagement. The circulation of simplified, reproducible meanings becomes aligned with prevailing digital communication norms, potentially shaping consumer learning processes toward acceptance of standardized interpretations rather than reflective or differentiated understanding.

e) Originality/value

The originality of the paper lies in its approach to the use of artificial intelligence in marketing from the perspective of standardizing meaning and consumer knowledge, a dimension that has been less explored in the literature, which is dominated by analyses focused on performance and efficiency. By integrating the practitioners' perspective on knowledge, the paper offers a conceptual contribution to understanding the role of AI and social media as mediators of meaning in the post-Covid society.

f) Practical implications

From a managerial perspective, the results highlight a tension between the efficiency brought about by the use of artificial intelligence and control over the meaning conveyed by marketing messages. AI is introduced into organizations to optimize processes and increase productivity, but by focusing on replicating dominant patterns, it can contribute to an excessive simplification of the knowledge conveyed to the public. In this context, marketing management has a responsibility to protect the meaning that differentiates the brand and to ensure that the diversity of meaning and quality of information communicated is maintained, so that the use of AI supports, rather than limits, the plurality of consumer knowledge in post-Covid society.

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4.5 A Network Performance Evaluation of TCP/UDP with 5G Technology and Data Transferring Techniques on VPNs

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Author keywords:

Evaluation TCP/UDP 5G

Abstract:

The rapid development of network technologies, particularly the widespread deployment of fifth-generation wireless systems, has reshaped how data is transferred across modern digital environments (Hossain & Hasan, 2015; Lan, 2023; Nkrumah, 2024; Shafi et al., 2017). What was once considered a background function of network design is now central to how organizations operate. Data transfer is no longer simply about connectivity; it directly affects system responsiveness, operational continuity, and cost efficiency. As reliance on distributed systems, cloud services, and remote connectivity increases, mechanisms governing how data move have become increasingly important (Parvez et al., 2018; Westerman et al., 2014). Among these mechanisms, Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) remain the primary means of transporting data, especially within Virtual Private Network (VPN) environments, where encryption introduces additional processing and complexity (Adeyinka, 2008; Allman et al., 2009; Bansal et al., 2004; Khanvilkar & Khokhar, 2004; Xenakis et al., 2006).

This study centers on data transfer, using transport protocols as a framework to understand how information is managed in fifth-generation networks. Instead of viewing protocols as isolated technical parts, the research sees them as active drivers of performance outcomes. In practice, even small inefficiencies in packet handling, retransmissions, or congestion responses can accumulate over time (Balakrishnan et al., 1997; Xylomenos et al., 2001). These effects become more significant as systems grow, affecting infrastructure planning, operational costs, and overall system reliability. The purpose of this research is to analyze how data transfer performance varies depending on the behavior of the TCP and the UDP under network conditions influenced by fifth-generation technology. TCP is commonly associated with reliability, ordered delivery, and congestion control, making it suitable for applications that demand accuracy and completeness (Allman et al., 2009; Jacobson et al., 1992). These features also add extra overhead, especially when data are transmitted through encrypted tunnels (Ferrante et al., 2005; Xenakis et al., 2006). UDP offers a different approach, prioritizing speed and

lower processing needs, allowing data to move with fewer constraints but without guarantees of delivery or order (Bansal et al., 2004; Xylomenos & Polyzos, 1999). While these differences have long been recognized, increasing bandwidth and decreasing latency of modern networks raise new questions about how these protocols perform in real-world scenarios (Demidov et al., 2022; Kamil et al., 2015). The study examines whether improved conditions of fifth-generation networks reduce performance penalties usually associated with Transmission Control Protocol or further emphasize the efficiency benefits of User Datagram Protocol. It also explores whether a more flexible approach, in which protocols are chosen based on application needs rather than fixed standards, better reflects how modern systems operate (Henderson & Venkatraman, 1993; Weill & Ross, 2004). As workloads become more varied and unpredictable, strict assumptions about protocol choice may no longer be adequate. The main question guiding this research is how data transfer performance varies between Transmission Control Protocol and User Datagram Protocol, as measured by throughput, latency, reliability, and efficiency in a fifth-generation Virtual Private Network environment. Supporting questions explore effects of encryption overhead, behavior of different application types, and performance differences. To address these questions, the study uses a mixed-method approach. Quantitative performance data are collected using tools like iperf3 and file-transfer applications that simulate real-world usage (Avallone et al., 2004; Botta et al., 2012; Kolahi et al., 2011). Testing occurs in controlled environments where data are transmitted through VPN tunnels over fifth-generation networks. This setup allows for consistent measurement of key metrics, including bandwidth utilization, packet loss, jitter, and round-trip time (Constantine et al., 2011; Demichelis & Chimento, 2002). Instead of relying only on ideal conditions, the study includes different workloads to better demonstrate how systems perform under sustained and varying demand. The analysis focuses on how each protocol reacts to different conditions, including congestion, variable latency, and encryption overhead. Attention is given to how retransmission behavior and flow control mechanisms impact overall efficiency. For TCP, this includes examining how congestion control algorithms work with modern network characteristics (Allman et al., 2009; Vu, 2023). For UDP, the analysis examines how lack of built-in reliability mechanisms affects performance across different traffic types (Bansal et al., 2004). These observations offer a more practical understanding of how data transfer functions beyond theoretical expectations (Narayan, 2014). Cybersecurity is seen more as a practical limit than a main focus. Encryption, key management, and VPN setups introduce processing demands that impact data transfer efficiency (Ferguson & Schneier, 2000; Uskov, 2012; Uskov & Avagyan, 2014). At the same time, governance and compliance factors influence how systems are designed and operated (Hossain et al., 2019). The study notes these elements but they are viewed as conditions that shape data transfer. The research also explores how data transfer performance aligns with wider operational requirements. As organizations move to cloud-based environments, remote work setups, and connected systems, volume and frequency of data movement continue to increase (Westerman et al., 2014). In performance terms, this is not just about peak speed but also about consistency and reliability. Transport protocols are assessed based on their ability to deliver stable performance across different workloads



and network situations. Another focus area is ensuring consistent data transfer across distributed environments. With increasing multi-cloud architectures and edge computing, data frequently move between geographically dispersed systems. These routes can introduce variability that impacts latency and reliability. Understanding how each protocol reacts to these conditions helps determine where each approach works best (Parvez et al., 2018). The study also explores how modern applications demand different data transfer approaches. Streaming services, interactive applications, and automated systems each need a unique balance of speed and reliability. Some applications require strict delivery guarantees, while others prioritize quick responses even with occasional data loss. By examining how each protocol performs in these situations, the research offers insights into how data transfer strategies can better match application needs. Another important factor is how protocol behavior impacts scalability. As systems expand, small inefficiencies can become more prominent. Retransmissions, buffering delays, and congestion responses can accumulate, reducing overall performance (Balakrishnan et al., 1997). This study examines these factors in a fifth-generation environment, emphasizing how protocol choices can affect both short-term performance and long-term system behavior. This research contributes to technical understanding and practical use. Technically, it clarifies how data transfer functions in modern networks with higher bandwidth and lower latency. Practically, it offers actionable guidance for real systems, especially when selecting protocols based on specific needs rather than broad assumptions. In conclusion, this study examines how TCP and UDP impact data transfer in fifthgeneration VPN environments. By focusing on data transfer as the main topic and viewing cybersecurity as a supporting element, it provides a balanced perspective on performance, efficiency, and reliability. As network technologies continue to evolve, understanding and managing data transfer will remain essential for developing systems that are both effective and resilient (ITU, 2017).



4.6 Antagonistic synergy

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Author keywords: sustainability, open innovation, engagement

Abstract:

The Wall of Resistance

We live in an era where the word "sustainability" is often met with two diametrically opposed reactions: blind enthusiasm or cynical scepticism. In the luxury maritime sector, specifically the superyacht industry, this divide is even more pronounced. We are often seen as the "villains" of the environmental narrative.

For years, the corporate instinct has been to ignore the "haters"—those critics, activists, and scientists who point fingers at our environmental footprint. We build PR walls. We hide behind glossy brochures. But today, I want to propose a radical shift in perspective. What if our harshest critics are actually our most valuable consultants? I call this practice "Antagonistic Synergy."

It is the deliberate process of seeking out "haters"—not to argue with them, but to use their friction to heat our engines of innovation. It is about transforming a defensive stance into a collaborative leap forward.

The Genesis of Antagonistic Synergy

"Antagonistic Synergy" is based on the principle of antifragility. Just as a muscle needs resistance to grow stronger, a sustainability strategy needs the pressure of critical scrutiny to become credible.

When we talk about haters in the context of sustainability, we aren't just talking about internet trolls. We are talking about informed critics: marine biologists, oceanographers, and environmental NGOs who look at a 60-meter yacht and see a threat to biodiversity. Most companies see these groups as obstacles. At Amer Yachts, we chose to see them as a mirror.

The Case Study: Amer Yachts and the Silent Giants

Let's look at a concrete example of Antagonistic Synergy in action. The superyacht industry has always prioritized speed and performance. To a marine biologist, however, a fast-moving hull is not a feat of engineering; it is a source of acoustic pollution and a lethal risk to cetaceans. In the past, these two worlds—the shipbuilder and the biologist—spoke different languages. One spoke of knots and carbon fibre, the

other spoke of decibels and migratory patterns.Instead of dismissing the biologists' concerns as "anti-business," a path of constructive confrontation was chosen.

Amer Yachts engaged directly with those who were most critical of motor yachting's impact on the Mediterranean. They asked: "What if we stopped guessing what sustainability looks like and let the data of our 'antagonists' lead the way?" This led to a pioneering campaign to reduce cruising speeds in sensitive areas. It wasn't a marketing gimmick. It was a technical shift born from the friction between luxury and ecology. By listening to the "haters"—the scientists who warned about the impact of high-speed transit on whale populations—Amer Yachts didn't just slow down. They redefined the "luxury of the slow": a new way of experiencing the sea that prioritizes the health of the ecosystem over the ego of the engine.

The Three Pillars of Antagonistic Synergy

How can your organization implement Antagonistic Synergy? It requires three fundamental shifts in mindset:

1. Radical Listening (The Death of the Ego): You must invite the critic to the boardroom. When a biologist tells you that your underwater noise is disrupting dolphin communication, your response shouldn't be "but we comply with regulations." It should be "show us the data, and let's redesign the propeller."

2. Productive Friction: Agreement is comfortable, but it is rarely innovative. Antagonistic Synergy thrives on the "no." When an environmentalist says, "You shouldn't be building yachts at all," the synergistic response is, "Help us build the yacht that proves you wrong."

3. The Validation Loop: Sustainability claims are often dismissed as greenwashing. But when your sustainability metrics are co-signed or inspired by your former critics, your credibility becomes bulletproof.

Beyond Greenwashing: The Credibility of the Conflict

The public is tired of "green" logos. They want to see the scars of the struggle. When a brand like Amer Yachts tells the world they are reducing speed to protect whales, the message is powerful because it didn't come from a marketing agency. It came from a difficult, sometimes uncomfortable dialogue with the scientific community. This is the heart of Antagonistic Synergy. It moves us away from "monologue sustainability"—where we talk to ourselves in a mirror—and toward "dialogue sustainability."By embracing the hater, we eliminate the blind spots that corporate culture naturally creates. The biologist sees what the engineer misses. The activist sees what the CEO ignores.

The Challenge to the Industry

I want to challenge every leader in this room today. Who is your greatest critic? Which NGO has been a thorn in your side? Which scientist is publishing papers about the damage your specific sector causes?Don't send your legal team to meet them. Send your



R&D team.The future of the superyacht industry—and indeed, of any luxury industry—depends on our ability to integrate into the natural world, not just float on top of it. We cannot achieve this by staying in our comfort zones.We need the "Antagonistic Synergy." We need the friction.

Conclusion: A New Horizon

In closing, let us stop viewing critics as enemies of progress. In the context of the climate crisis, the real enemy is complacency. The "haters" are often just people who love the ocean so much they are terrified of losing it. If we share that love for the sea—the very environment that makes our industry possible—then we are not enemies. We are just two sides of the same coin, looking for a way forward.

Amer Yachts showed us that by slowing down, we actually move faster toward a legitimate future. They proved that a confrontation today leads to a solution tomorrow. Let us adopt Antagonistic Synergy not as a crisis management tool, but as a design philosophy. Let us build ships that are not just masterpieces of luxury, but monuments to a hard-won truce between man, machine, and the deep blue.

4.7 A review of learning and development through participation in project work: a reflective case study

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Author keywords:

Reflection reflexivity experiential-learning

Abstract:

The paper is currently work in progress; data has been collected and is yet to be analysed. The literature review and development of conceptual/theoretical framework is also yet to be completed. The intention is to present a complete paper with findings at the conference.

a) purpose

The research is an evaluation of personal learning and development gained through working as part of a team of university academics involved in a three year, externally funded project. The project was situated in a University in the North of England, with a focus on the development of confidence and management skills for women in SMEs. The purpose of the research is to capture and evaluate the expected and the unexpected learning gained through project participation, in order to identify the benefits of such participation, which does not always seem to be prioritised or valued as highly as explicitly academic activities (such as teaching and research) in a higher education context.

b) design/methodology/approach

The research approach is a case study, where all participants had a role in the planning or delivery of aspects of the 3-year project. The methodological approach is mono-method qualitative research, using a reflective, narrative approach. Data collection was longitudinal, with the first set of data collected close to the start of the project in September 2021, in total, 5 sets of data were collected between 2021 and January 2024. A final set of data was collected in January 2026 to evaluate longer term impact of learning gained from the project participation. Data was collected in the form of a qualitative survey, in which participants were asked to track their involvement in the project, and then to reflect on their learning. Free flowing narrative reflection was encouraged, ie there were no prompts included from any particular model of reflective practice. The researcher was also a participant in the research.

In the first round of data collection, there were 8 participants, and this fell to 4 who completed surveys in each of the 6 rounds of data collection. Thus, the sample is small, however, the data is rich.

The data will be collated collectively, anonymised and analysed thematically. The research has full ethical approval, and since data will be anonymised, all quotes included in the analysis and write up will be anonymous with no traceability back to any individual. This research received no direct or indirect financial support from the funded project; it merely uses reflections on experiences during project participation.

c) theoretical base

The theoretical framework developed in the research will draw on theories of reflection, reflexivity and experiential learning (Moon (2004), Cunliffe (2020), Schon (1983), Gibbs (1988)). Kolb's (1984) work on experiential learning will also be included, both in terms of supporting the power of reflection in learning and also identifying both intended and unintended learning.

d) results or expected results

The expected results are that analysis of the data will identify significant learning because of participation in the project. In addition to involvement in the planning and delivery of workshops, participants also took part in action learning sets and formed an informal supportive network. IN their reflections, all of these activities are referred to, and I expect there to be as much learning from the informal networks and support as from the more formal planned activities

e) originality/value

Whilst reflection as a powerful form of learning is well documented, this is a case study relating to academic staff in a university setting. Much of the focus on learning is such a setting is on student learning. The focus of this paper is on the personal development of staff, through engagement in educational activities that are not mainstream academic teaching and research based. If the results are as expected, then the contribution of the paper will be to advocate the enablement of academic staff to pursue some additional project related activities alongside their teaching, for the benefit of personal development and motivation.

f) practical implications

Should the results be as expected (these expectations will be set aside during the data analysis), then the findings from the research will have practical implications in personal development planning and objective setting for academics in HE.

Example bibliography:

Cunliffe, A., (2020) Perspectives: Reflexivity in Teaching and Researching Organisational Studies. Journal of Business Management 60(1) pp64-69.



Gibbs, G. (1988) Learning by Doing: A Guide to Teaching and Learning Methods. Oxford: Oxford Polytechnic.

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4.8 Artificial Intelligence in Human Resources Development

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Author keywords: HRD, AI, Review

Abstract:
a) Purpose

Our objective for this systematic review was to evaluate the degree to which Artificial Intelligence (AI) is redefining the functional, conceptual, and ethical boundaries of HRD. Specifically, the study sought to map the specific domains in which AI is most prevalent, such as recruitment and personalized training, while investigating the shift in professional identity for HRD practitioners. By synthesizing the most recent academic literature (e.g., McLean & González, 2024; Park et al., 2025), we provided a unified framework that identifies both the operational efficiencies gained and the strategic risks posed by automated developmental interventions.

b) Design/methodology/approach

The research methodology adheres to the PRISMA 2020 guidelines for systematic reviews to ensure transparency and reproducibility. We conducted a comprehensive search across the Web of Science and associated databases using a Boolean strategy focused on AI and HRD. From an initial pool of 770 records, we used a multi-stage screening process involving automated tools for metadata extraction and manual thematic review. By using this rigorous selection process, we ensured that only peer-reviewed, high-impact studies directly relevant to HRD—rather than general management—were included in the final analysis.

c) Theoretical base

The theoretical foundation of this study was rooted in Sociotechnical Systems (STS) theory, which argues that organizational performance is the result of the joint optimization of social and technical subsystems (Xu & Gao, 2025). We applied this lens to suggest that AI integration must prioritize human agency to be effective. Additionally, we incorporated the deskilling paradox (McLean & González, 2024) and the human-in-



the-loop ethical framework (Wang & Pashmforoosh, 2024). These theories provided the necessary depth to analyze how automated systems might inadvertently erode the critical judgment and deep reflection skills that have historically defined human expertise in the workplace.

d) Results or expected results

The final analysis was based on a corpus of 20 high-quality, peer-reviewed articles published between early 2023 and early 2025. The data distribution shows a significant surge in research activity in 2024, accounting for the majority of included studies (e.g., Chen, 2024; Ekuma, 2024). Bibliometric data indicate that these works were published primarily in Q2-ranked journals within the Social Sciences Citation Index (SSCI) and Emerging Sources Citation Index (ESCI). Our thematic data extracted from these sources highlight a focus on hyperpersonalization, algorithmic bias, and the current lack of longitudinal empirical evidence in the field (e.g., Yoo et al., 2024).

e) Originality/value

The originality of this study stems from its focused synthesis of the post-GPT era in HRD, capturing a critical shift in the field between 2023 and 2025 that prior reviews have yet to document fully. Unlike previous research that treats AI primarily as a tool for administrative efficiency, this work contributes unique value by applying a STS framework to investigate the deskilling paradox—the risk that automated precision may inadvertently erode the deep reflection and expert judgment of human practitioners. By identifying the necessary evolution of the HRD professional from a traditional coordinator to a strategic data steward, we have provided a novel conceptual roadmap for navigating the ethical and functional disruptions of Industry 5.0. Further, we exposed a significant empirical gap in current literature, shifting the scholarly agenda away from purely conceptual discussions toward the urgent need for longitudinal, experimental evidence on the long-term behavioral impacts of AI in the workplace.

f) Practical implications

Our findings imply that HRD must move away from techno-centric implementation models toward a more balanced sociotechnical approach that safeguards human developmental needs. They signal an urgent need for practitioners to evolve from administrative coordinators into strategic data stewards (Park et al., 2025). The primary limitation of our study is the scarcity of longitudinal empirical data; the current body of research is heavily skewed toward conceptual reviews and systematic overviews, leaving a significant gap in our understanding of the long-term ROI and behavioral impacts of AI in the workplace. Further, AI is developing rapidly while gaps remain between the time of conducting research and publication, resulting in a major time lag between findings and implementation.

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4.9 Augmenting the SECI Model with Artificial Knowledge Created by Generative Artificial Intelligence (GenAI)

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Author keywords: Human knowledge, artificial knowledge, organizational knowledge dynamics, SECI model

Abstract:

a) purpose

The purpose of this paper is to develop a new paradigm for a hybrid human knowledge-artificial knowledge model able to augment the well-known SECI model for knowledge creation dynamics.

b) design/methodology/approach

The paper is based on Design Research Science and Metaphorical thinking. It is a conceptual paper that proposes a new paradigm for organizational knowledge creation.

c) theoretical base

The theoretical basis is given by Ikujiro Nonaka's theory on knowledge creation dynamics and GenAI structure for generating artificial knowledge.

d) results or expected results

The final result is an augmented SECI model that includes artificial knowledge generated by GenAI. Metaphorically, it looks like a Möbius strip topological model.

e) originality/value

The model is original and it has both a theoretical and practical value. The theoretical value comes from the integration of human knowledge with artificial knowledge within knowledge management systems.

f) practical implications

The practical value comes from enlarging knowledge management systems to include GenAI applications.

4.10 Bank Opacity, Risk-taking Behavior, and Solvency of the Top 20 Universal and Commercial Banks (UKBs) in the Philippines

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Author keywords: bank opacity risk-taking, solvency, universal and commercial banks, financial stability, Z-score, financial assets

Abstract:

The banking sector is fundamental to a country's economic stability. However, as the sector evolves, understanding the dynamics of bank behavior, especially concerning opacity and risk-taking, is crucial for sustaining financial stability. With this, the study aims to answer the question "Does bank opacity and heightened risk-taking behaviors lead to decreased solvency among the top 20 universal and commercial banks (UKBs) in the Philippines?" While focusing on the top 20 UKBs in the Philippines from 2005Q1 to 2023Q4, the data utilized in this study was sourced from the banks' financial statements, analyzing variables such as Available-For-Sale (AFS) securities to measure bank opacity, Non-Performing Loans (NPL) for risk-taking, and the z-score of Return on Equity (ROE) to assess solvency. This study is grounded on the Stimulus-Organism-Response (SOR) theory proposed by Mehrabian and Russell in 1974, which posits that external stimuli impact the organism's internal processes, resulting in observable responses. This framework helps analyze how changes in macroeconomic conditions, driven by bank opacity and risk-taking, affect the financial stability and solvency of banks. Using a generalized method of moments regression procedure, the results show first, heightened risk-taking behavior is driven by increasing bank opacity, highlighting the importance of transparency in mitigating financial instability and ensuring robust bank solvency. Second, the results confirmed a significant negative relationship between higher NPLs and bank solvency, highlighting the critical need for stringent risk management practices to ensure financial stability. Third, the significance of bank opacity in this model also suggests that bank opacity does play a mediating role in the relationship between macroeconomic factors and solvency, though its effect is relatively weak. This supports the hypothesis that bank opacity, indicated by the securities available-for-sale ratio, partially mediates the relationship between macroeconomic factors and bank solvency. A lead indicator, such as bank opacity, would serve as an early warning device for the top 20 UKBs for the Philippines given the current situation of increasing non-performing loans from smaller banks and other banking clients.



4.11 Between Innovation and Regulation: Stakeholder Misalignment in Technology-Based Self-Directed Learning Policy in the Lithuanian

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Author keywords: Stakeholder, Technology-Based Self-Directed Learning, Lithuania, Education policy

Abstract:

a) purpose The aim of the paper is to examine the attitudes among key policy stakeholders regarding technology-based self-directed learning in Lithuania as a learning innovation, with a focus on how tensions between innovation and policy regulation hinder the creation of a common understanding. b) design/methodology/approach Methodology. This study employed a qualitative research design to explore the key factors shaping TSDL in Lithuanian high schools and to inform educational policymaking. Data were collected through 14 semi-structured interviews conducted with representatives of the Ministry of Education, Science and Sport, school leaders, teachers, and parents, ensuring a multistakeholder perspective. The semi-structured interview were organised into six core thematic blocks: 1.) current pedagogical practices; 2.) the use of digital technologies in the learning process; 3.) TBSDL as a pedagogical approach, investigating whether and how TBSDL is encouraged in schools, how it is implemented in practice; 4.) challenges and barriers to implementation; 5.) educational policy and governance; 6.) school autonomy and future development. All interviews were transcribed and analysed using MAXQDA. A thematic analysis approach was applied, combining inductive and deductive coding procedures. Four overarching themes were identified: political and regulatory preconditions, teacher initiative, the role of school leadership, and personal attitudes towards innovation in education. Within these four themes, a total of 12 analytical categories were developed and splited into 60 nodes (subcategories). c) theoretical base In contemporary societies, the ability to learn autonomously has become a critical prerequisite for meaningful participation in social, economic, and professional life (Luke, C.L., 2006). Modern learners are expected not only acquire knowledge but also to take responsibility for their own learning processes. Self-directed learning (SDL) enables learners to set learning goals, plan strategies, select appropriate tools, and evaluate their progress (Knowles, M., 1975). As a result, SDL generates significant added value by fostering engagement, responsibility, and creativity (Lemmetty and Collin, 2021). The rapid expansion of digital technologies has

fundamentally transformed learning environments, learning content, and the roles of participants in the educational process (Bembenutty, 2023). Consequently, technology-based self-directed learning (TSDL) has gained increasing attention in educational research and policy discussions. However, despite its potential, the implementation remains conceptually and practically fragmented. Numerous theoretical models of SDL exist (Zimmerman et all, 2002), (Puustinen et al, 2001), (Panadero, 2017), yet their plurality complicates practical application. Policymakers and practitioners often misinterpret key concepts, particularly the distinction between goal-setting, selfregulation, and performance-related processes (Kubik et al, 2021), which may lead to ineffective or inconsistent educational practices. In Lithuania, while national education policy emphasises learner autonomy and personal maturity, studies indicate that the integration of technology-based pedagogy remains uneven and insufficiently systematised (Kazlauskiene et al, 2016). d) results or expected results Findings of this study reveal significant divergences in how key educational stakeholders perceive TBSDL and its role within the Lithuanian high school system. One of the most unexpected results links to representatives of educational governance. Although their formal role is to ensure regulatory coherence, these actors are personally enthusiastic about innovative, future-oriented views on education that are not yet reflected in current laws. They less value accountability, standards, and results, but support more personalised learning and reducing emphasis on outcome-driven, performance-based education. Teachers' perspectives were characterised by ambivalence and a sense of constraint. On the one hand, teachers demonstrated openness towards innovation and recognised their own professional capacity to implement TBSDL. On the other hand, they reported feeling "trapped" within the system, reluctant to take initiative without explicit instructions or formal endorsement from their leaders. This fear of overstepping institutional boundaries resulted in passive compliance rather than proactive pedagogical experimentation. School leaders approached the issue from a fundamentally different standpoint. Their attention was largely directed towards macro-level responsibilities, such as ensuring compliance with legal regulations, managing institutional accountability, and maintaining school performance indicators. The drive to maintain rankings and achieve externally set goals reinforced a focus on stability and control. Consequently, extensive and resource-heavy innovation projects were seen as risky and often considered less important than immediate performance requirements. Parents articulated yet another perspective, primarily centred on student wellbeing and the opportunity for children to demonstrate their individual abilities. While parents tended to support teachers' initiatives for innovation—particularly digital—they simultaneously expressed a strong desire for familiar, traditional forms of achievement representation. e) originality/value This study offers original value by revealing the disconnect between national policy ambitions and everyday school practices in technology-based self-directed learning in Lithuanian high schools. It moves beyond descriptive accounts by identifying how unclear institutional mandates, limited policy backing, and risk-averse school leadership collectively constrain pedagogical innovation. By analysing the often-overlooked tensions between policymakers, educators, and parents, the study contributes a novel perspective on why well-endorsed innovations fail



to materialise in practice. The findings advance the field by proposing the need for a shared, mediating framework that balances innovation with regulation, thereby supporting more coherent and sustainable implementation of selfdirected learning across education systems. f) practical implications The findings suggest that policymakers should provide clearer institutional mandates and sustained support to enable schools to implement technology-based self-directed learning more consistently. School leaders are encouraged to move beyond compliance-driven management and actively foster a culture that supports pedagogical innovation and teacher autonomy. Additionally, structured dialogue mechanisms among policymakers, educators, and parents could help align expectations and reduce tensions that currently hinder effective implementation.

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4.12 Beyond Automation: A Framework for Human-Augmented Business Models and the Mitigation of the Augmentation Paradox in Industry 4.0

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Human Augmentation Industry 4.0 Human–Machine Interface Worker Agency

Augmentation Paradox

Abstract:

Industry 4.0 is often framed as a binary choice between human labor and total automation. This technological determinism suggests that machines will inevitably replace workers to maximize productivity. This research challenges that narrow view. We propose a framework for human augmentation—where technology expands rather than replaces human capability. However, this shift is not inherently beneficial. It carries significant risks of "system-guided" deskilling and intrusive surveillance. This paper analyzes the conditions under which augmentation creates sustainable value.

Existing Business Model Innovation (BMI) literature frequently ignores the human-machine interface. Traditional tools, like the Business Model Canvas, treat technology as a resource for efficiency. They fail to account for the "Augmentation Paradox." This paradox suggests that offloading cognitive tasks to AR or AI may lead to skill atrophy among workers. They risk becoming replaceable operators of a system they no longer understand. We address this by introducing the Human-Augmented Business Model Canvas (HABMC). This framework is not a universal roadmap. It is a strategic tool designed for high-complexity, high-margin manufacturing. It does not apply to low-margin commodity production where the marginal cost of augmented labor exceeds the cost of full robotics.

Our investigation centers on the link between worker agency and economic performance. We analyze three mature cases. BMW's AR-guided assembly illustrates how digital overlays can manage complexity (Werrlich et al., 2016). Ford's use of exoskeletons demonstrates a strategy to preserve institutional knowledge by extending worker careers (Savković et al., 2023). Airbus's collaborative robotics program explores shared decision-making in assembly (Donadio et al., 2016). These cases suggest that augmentation succeeds only when it empowers the worker. If tools are used for micromanagement, they often face worker resistance and high failure rates.

We propose a revised Empowerment Index to measure the viability of these models. This index is not merely a psychological metric. It must correlate directly with long-term retention and error-reduction rates. If an augmented system reduces worker autonomy, it is likely to increase cognitive load and turnover. This destroys the return on investment (ROI) through recruitment and training costs. Therefore, the HABMC treats "Meaningful Work" as a functional requirement for system stability rather than merely an ethical preference.

Strategic trade-offs are central to this framework. Organizations must balance the high upfront cost of augmentation against the long-term resilience of a skilled workforce. There is a constant tension between short-term output and the risk of deskilling. Managers must move beyond "efficiency at all costs." They must design interfaces that require active human judgment. This research reframes digital transformation as a strategic choice. We can automate toward human obsolescence or design for a collaborative future that protects labor leverage.



4.13 Beyond the age: technology attitude as a stronger predictor of FinTech barriers among Silvers

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Fintech silvers Unified Theory of Acceptance and Use of Technology

Abstract:

a) purpose

FinTech services expand access to everyday financial activities such as payments, savings, investing, and budget control. However, adoption is uneven, and older adults are often described as a group with lower readiness to use FinTech. In many studies this lower readiness is explained mainly by chronological age. The present paper argues that this explanation is too simplified. Instead of treating age as the key driver, we examine whether perceived barriers and technology attitude better explain why some seniors are reluctant to use FinTech while others are open to it. The main purpose of the study is to assess the relative importance of age and technology attitude in shaping perceived FinTech barriers among seniors and to identify factors that can be influenced through design, education, and communication.

b) design/methodology/approach

The study uses data from a CAWI survey conducted in 2025 among Polish consumers. The sample covers a broad age range and includes a substantial subgroup of older adults (silver segment). The questionnaire captures FinTech use and willingness to use FinTech services, perceived barriers to adoption, and general attitude toward technology, alongside demographic and knowledge-related variables. Barriers include both practical and psychological aspects, such as perceived complexity, lack of confidence in independent use, and concerns about security, privacy, and trust. The analysis in this paper focuses on the senior group and examines whether perceived barriers are more strongly associated with technology attitude than with chronological age.

c) theoretical base

The paper builds on UTAUT2, which explains technology acceptance through expected usefulness, ease of use, social influence, and facilitating conditions, while also accounting for individual differences relevant for consumer technologies. To better capture low readiness and reluctance toward FinTech services, we complement UTAUT2 with a barrier-based innovation resistance perspective. This perspective emphasizes that even when a service offers clear benefits, users may remain hesitant due to perceived obstacles such as complexity, perceived risk, and trust-related concerns. In the paper, technology attitude is treated as a key individual factor shaping perceived barriers. Within the senior segment, differences in openness toward technology are expected to explain variation in barriers more strongly than chronological age itself.

d) results or expected results

The findings indicate that perceived FinTech barriers among seniors are more strongly associated with technology attitude than with chronological age. While age may correlate with barriers at a descriptive level, within the senior group it does not appear to be the principal factor explaining why some older adults perceive substantial obstacles and others do not. Instead, seniors who exhibit reluctance toward technology report higher perceived barriers, while those expressing technological openness demonstrate lower barrier levels - even when they belong to older age brackets. This pattern suggests that what differentiates seniors is not primarily “how old they are,” but “how they approach technology”. The key barriers relate to perceived complexity, security and privacy concerns, and low confidence in independent use. This suggests that readiness can be improved mainly by reducing these frictions rather than by focusing on chronological age.

e) originality/value

The paper contributes to FinTech research by challenging the common assumption that chronological age is the main driver of lower readiness to use FinTech services. It shows that older adults are not a uniform group and that substantial differences exist within the senior segment. By emphasizing technology attitude and perceived barriers, the study shifts attention from age-based explanations to mechanisms that are more meaningful for theory development and more useful for practice. The value of the study lies in linking a widely used acceptance framework (UTAUT2) with a barrier-focused perspective, offering a clearer understanding of why seniors differ in their readiness and willingness to use FinTech services.

f) practical implications

The results have implications for FinTech firms, banks, and public stakeholders working on digital inclusion. They suggest that interventions should focus on reducing barriers rather than designing solutions based only on age categories. Practical strategies include simplifying user interfaces, improving step-by-step onboarding, offering easy access to human support, and communicating security and privacy measures in a clear and reassuring way. Education programs should strengthen seniors’ confidence and sense of control when using digital financial services. Finally, market segmentation should rely



more on technology attitude and readiness profiles than on chronological age alone. Such an approach can support wider adoption of FinTech among seniors and reduce the risk of digital exclusion.Borderless but Not Leaderless: A Conceptual Model of Boundary Spanning Leadership for Global Knowledge Ecosystems

4.14 Borderless but Not Leaderless: A Conceptual Model of Boundary Spanning Leadership for Global Knowledge Ecosystems

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Author keywords: Boundary-spanning leadership; Global knowledge ecosystems; Intangible value; Open innovation; Competitiveness

Abstract:

Purpose This paper proposes a conceptual model of boundary-spanning leadership in global knowledge ecosystems, examining how leaders orchestrate cross-border knowledge flows and co-create intangible value. It seeks to explain how leadership practices in multinational and inter-organisational networks shape global competitiveness, innovation capacity and broader societal outcomes, particularly through their influence on collaboration, inclusivity and responsible knowledge use. The paper positions boundary-spanning leadership as a critical capability for navigating fragmentation, institutional diversity and power asymmetries in global innovation and

knowledge networks. Theoretical Base The model is grounded in ecosystem and network theories that conceptualise global innovation and knowledge creation as distributed, interdependent and relational processes. It draws on work on boundary-spanning leadership and boundary organisations to articulate how leaders connect multiple domains, including organisational, sectoral, geographical and disciplinary boundaries. Intellectual and social capital approaches are incorporated to conceptualise how cross-border collaboration builds or depletes intangible assets such as shared reputation, trust, reciprocity and joint learning capacity. Methodology A conceptual methodology is applied, synthesising dispersed literatures on innovation ecosystems, boundary-spanning leadership, open innovation and cross-border cooperation into a coherent set of constructs. Key constructs include boundary practices (e.g. brokering, framing, translating), bridging mechanisms (e.g. joint platforms, communities of practice), trust architectures and governance logics that guide decision-making and value distribution. The model is presented as a layered framework connecting individual leaders, organisational architectures and global ecosystem structures, highlighting feedback loops between micro-level practices and macro-level outcomes. Data The conceptualisation is informed by secondary data from case studies of global innovation alliances, university–industry partnerships and international research consortia reported in existing empirical work. These cases document how boundary roles and organisations operate at the interface of firms, universities, public agencies and civil society, and how they manage tensions between collaboration and competition. They provide indicative patterns that underpin propositions about boundary-spanning leadership behaviours, knowledge flows, intangible asset development and competitiveness in different regional and sectoral contexts. Conclusions The paper concludes that global knowledge ecosystems require leaders who can consistently span organisational, sectoral and national boundaries while maintaining ethical standards, transparency and inclusivity. Such leaders build and protect social and intellectual capital by fostering trust, reciprocity and shared purpose across heterogeneous actors, thereby enhancing innovation and global competitiveness. In their absence, networks risk becoming fragmented, dominated by powerful actors or reduced to extractive collaborations that erode global intangible value, legitimacy and long-term resilience. Implications and Limitations The model offers guidance for organisations and policy-makers designing leadership development initiatives, governance arrangements and evaluation criteria for global knowledge ecosystems. It highlights practical levers such as investing in boundary-spanning roles, strengthening trust-building infrastructures and aligning governance logics with equitable value creation and societal missions. Limitations relate to the conceptual level of analysis, the reliance on existing case material and the need for empirical testing through comparative, multi-level research that spans sectors, regions and types of ecosystems.



4.15 Can cognitive bias be linked during the decision-making process when organizations adopt technology: Exploring the current landscape

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Author keywords: Technology, cognitive bias, decision-making

Abstract:

a) purpose

Adopting new technology into an organization has the potential to be influenced by how leaders feel, or their cognitive biases towards new or existing platforms. The purpose of this paper is to determine if organizational leadership is affected by cognitive bias when making decisions to adopt technology. There may be a lack of knowledge transfer due to intrinsic and extrinsic influences contributing to an organization or institution rejecting or accepting technology. Although interest in this subject grows, the information is slowly gaining traction.

b) design/methodology/approach

This paper is a literature review of existing research with a conversation on the search process, technological adoption considerations, relevant literature, designs and methods, findings, and limitations. Approximately 100 sources were evaluated within the nine resources for applicability, content, contributive substance, and quality of information. Of the assessed sources, over 25 papers and book chapters were further vetted for usable information, allowing for identifying some central themes for further research in exploring technology bias. Furthermore, due to the limitations of the language boundaries, all sources were sought out in English; however, some sources were most likely translated as they originated from other countries. Other limitations were that articles had to be based in industries that use technology but were not relegated to specific types or organizations. Lastly, time was taken to restrict the relevancy of the literature to remain relevant to current technology within the last 25 years.

c) theoretical base

Cognitive biases is a part of every person's life and seems to be influenced by external environmental and sociologically factors. These factors may have a predominate role in influencing and affecting the decision-making process within organizations when

adopting or using technology. Rejection does not necessarily constitute negativity with the rejection of technology; however, through exploring the literature, there is the potentiality of gleaning information that can allude to the factors that contribute to negative cognitive bias directed towards technology concerning personal and social norms that have been developed over time within individuals.

d) results or expected results

From the relevant academic journal articles the perception of technology is not relegated to the individual alone; it is manipulated by other factors contributing to the overall biases contributing to innovation. The following sections will explore some of these factors, which will include personal, social/cultural, organizational, and political elements. The subsection will then conclude with a model showing the connections among these factors.

e) originality/value

Research exploring the reasons for organizations to adopt or refuse technological innovation is not new, and from what was found in this paper finding academic research linking the effects of cognitive bias for or against technology seems to be minimal at best. Vast knowledge expounds on the compendium of extrinsic factors contributing to an organization's established, or lack thereof, a foothold on any technological strategy. Nevertheless, there seems to be a vacuum when attempting to discover the more intrinsic aspects of technology adoption. As many external factors can be attributed to why any new technology is adopted or rejected, there is an underlying nuance: the human condition and how the individual feels about the latest technology.

f) practical implications

We are on the cusp of becoming one with technology. As we advance in our knowledge, the technology we innovate with will become more complex and nuanced, establishing a more complex environment, garnering a more comprehensive understanding of its intricacies, and appreciating how platforms can enhance our existence. Much like in Hollywood, the day when advanced technology is integrated into the human body is approaching; therefore, understanding the various cognitive biases or heuristics, as some have mentioned, is essential. Like any technological innovations from the past that humans failed or succeeded in adopting due to perceptions, this new world offers the same harmful consequences if we fail to identify and acknowledge our presuppositions when deciding to innovate with technology.



4.16 Challenges and opportunities of using AI interviews in the selection function: from the human resources management perspective.

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Author keywords:

human resources managementm selection processm AI interviews, employer branding, communication

Abstract:

Artificial Intelligence is becoming a key area of interest for employers and is increasingly applied in interviews. The aim of this study is to identify the challenges and opportunities in this new phenomenon. The author has collected the relevant literature through a systematic search to respond to the main research question, “What are the main challenges and opportunities of adopting AI interviews in the selection process?” The challenges include weak employer branding and an inability to identify the candidate's verbal and nonverbal cues, resulting in an inefficient social exchange. The opportunities include reduced performance anxiety and stress, better objective evaluation, and higher success rates. The originality lies in the theme, from a theoretical perspective, where it connects the topic to the selection process. From the practical perspective, a better understanding and recommendations for the human resources practitioners.

4.17 Climbing the Ladder: When Merit Meets Ethnic Bias a case Study in Ethics and Human Resource Development

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Keywords:

Abstract:
This case examines a critical incident of subtle ethnic discrimination during the pre-promotion evaluation of R.M., a high-performing team manager of Romani ethnicity at an international consulting firm in Spain operating under an "up or out" system. During the evaluation, R.B., her supervisor and mentor, questioned whether her family and cultural background might interfere with the demands of senior management, prompting her to reflect on whether to pursue her career at the firm. Although no explicit discriminatory intent was voiced, R.M. was the only candidate subjected to such questioning, illustrating how bias can operate through ambiguous, non-conscious insinuation rather than overt exclusion.

The case situates this incident within the broader invisibility of Romani people in Spanish business and leadership contexts, despite formal diversity and inclusion policies at the firm, revealing a persistent gap between stated policy and lived organizational reality. It introduces two conceptual anchors — subtle discrimination (Jones et al., 2017) and invisible diversity (FSG, 2020; FRA, 2018) — to help participants analyze how harm can occur without conscious intent, and why minority groups that fall outside conventional D&I categories (such as gender or race) require deliberate, targeted inclusion strategies.

Structured for graduate courses in Human Resource Management, Business Ethics, and Organisational Behaviour, the case invites a dual-perspective discussion: from R.M.'s standpoint, weighing whether and how to report the incident, and how to reconcile cultural identity with professional ambition within a demanding corporate culture; and from R.B.'s and the firm's standpoint, confronting the discomfort behind his words, the risks of unconscious bias in evaluation processes, and the policy reforms needed to prevent recurrence. Two established ethical frameworks — the AHRD Standards and the CIPD Code of Ethics — are applied to translate abstract principles of dignity, fairness, professionalism, and accountability into concrete organizational recommendations (e.g., bias training, structured and documented evaluation processes, mentoring programs for cultural minorities).

In the epilogue, R.M. chooses to continue in the promotion process, is promoted to Manager, and channels her experience into institutional change: she engages with the firm's Diversity Committee, catalyzes a mentoring pilot for employees from cultural minorities, and prompts a revision of evaluation policies. The case closes on the theme

that individual courage, combined with institutional will, can convert an ambiguous instance of bias into durable organizational learning — underscoring that awareness and structured processes, not just written policy, are what make diversity and inclusion commitments real.



4.18 Collaboration as a Strategic Response to Climate and Weather Risks in Food Supply Chains: A Literature-Based Framework

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Author keywords: food supply chain, weather risk, climate risk, supply chain resilience, collaborative risk management

Abstract:

a) purpose

The aim of this paper is to synthesize the scientific literature on collaboration in food supply chains in the context of weather and climate risks, with a focus on the benefits of collaboration and the prerequisites and barriers to such collaboration. The topic includes how a collaborative network of stakeholders (e.g. producers, processors, distributors, retailers, institutions) can collectively manage the risks caused by extreme weather events, climate change and their consequences on food supply chains. The paper recognizes that such risks have already been identified as a key factor in the vulnerability of food supply chains and that there is a growing need for interdisciplinary approaches that integrate collaboration and resource sharing to improve the resilience of the system.

b) design/methodology/approach

The paper is based on a structured and analytical review of relevant scientific papers published in reputable journals indexed in Scopus and Web of science databases. The focus is on recent studies that deal with collaboration in food supply chains, weather and climate risk management and the concept of resilience in the context of climate change-induced disruptions. The research process includes identification of key thematic areas, selection of papers according to their relevance to the research question, and in-depth analysis of their theoretical frameworks, methodological approaches and main findings.

c) theoretical base

Food supply chains differ from other industrial chains due to the specificities of biological production, seasonality, sensitivity to climate variations, and high regulatory exposure

(Ali et al., 2017; Stone & Rahimifard, 2018). It is because of these characteristics that climate and weather risks make both an operational and a structural challenge. The theoretical foundation of this study is grounded in the integration of resource-based and relational view, supply chain resilience, and network perspectives, specifically applied to food supply chains. The resource-based and relational views explain how collaboration among farmers, processors, distributors, and retailers enables the creation of shared capabilities to manage risks that individual actors cannot address alone (Teece, 2007; Wieland and Wallenburg, 2013). These capabilities are particularly critical in food supply chains due to the biological nature of production, seasonality, and perishability of products, which increase vulnerability to climate and weather disruptions (Hobbs, 2020). Supply chain resilience theory further clarifies how anticipation, absorption, adaptation, and recovery capabilities translate into systemlevel resilience, maintaining continuity and quality of food supply (Christopher and Peck, 2004; Ponomarov and Holcomb, 2009; Dubey et al., 2017). Finally, network theory emphasizes the importance of trust, power balance, and relational embeddedness among food supply chain actors in enhancing the effectiveness of collaborative risk management (Sodhi et al., 2012). Together, these perspectives provide a solid theoretical basis for understanding collaboration as a strategic response to climate and weather risks in food supply chains.

d) results or expected results

The literature review highlights several key findings. The need for collaboration is confirmed. Research shows that food chains are highly vulnerable to climate and weather risks, including extreme weather events, which can directly threaten production, distribution and food security (Gbegbelegbe et al., 2023; Sahar et al., 2025). Furthermore, collaboration and social capital increase resilience. Horizontal collaborative networks and joint risk management practices foster dynamic supply chain capabilities and enable anticipation and faster recovery from disruptions (Alzate Rendón et al., 2025). The integration of technologies and joint information sharing contribute to better predicting climate impacts and optimizing operations, but depend on collaboration among stakeholders and the availability of common access to data. Collaboration also reduces operational risks. Through joint activities such as joint planning, inventory optimization, coordinated response to specific weather events and financial risk sharing, the bullwhip effect can be mitigated and the chain stabilized. And finally, conceptual and practical shortcomings of cooperation are identified, including lack of trust, uneven levels of resources between stakeholders, legal and institutional barriers, and a lack of standardized mechanisms for sharing knowledge and data. Based on the synthesized literature, a conceptual framework was developed that positions collaboration as a strategic response to climate and weather risks in food supply chains. Collaboration does not directly lead to resilience, but first develops risk management capacities that result in greater resilience of the chain. These abilities can be categorized into anticipation capabilities, absorption capabilities, adaptation capabilities and recovery capabilities. Collaboration mediates the relationship between climate risk exposure and resilience outcomes through the development of risk management capabilities.

e) originality/value

This paper contributes to theory and practice by: (1) systematically summarizing the existing literature on collaboration in the context of weather and climate risks within food supply chains, (2) identifying key concepts, benefits and challenges of collaboration based on evidence from international publications and (3) providing a theoretical framework that can serve as a basis for future empirical research and development of collaboration models in specific supply contexts.

f) practical implications

The proposed conceptual framework offers some valuable practical implications for managers and policy makers. The framework suggests that climate and weather risks are not effectively manageable at the level of an individual company, but require inter-organizational coordination. Managers should formalize mechanisms for sharing information about weather forecasts and vulnerabilities, develop joint business continuity plans, and involve suppliers and distributors in scenario planning. Collaboration alone is not enough. Concrete mechanisms of discount integration of information, operational coordination and financial risk sharing are key. The effect of collaboration depends on institutional support.

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4.19 Consigned Capital

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Author keywords: Intellectual capital, Consigned Capital, Artificial Intelligence, Machine Learning from queries, Data market Ethics.

Abstract:
a) purpose

The purpose of this study is to explore how the current uses of artificial intelligence promote the concentration of a new kind of capital: the consigned capital.

b) design/methodology/approach

The basis for a new kind of capital is established through the consideration of the architecture, current conditions of the use of major artificial intelligence solutions and the actual use of these solutions. Not so long ago, organizations once tended to transform individual capital into perene forms of organizational capital. Accumulating organizational capital was seen as a way of increasing both organizational capability and the absoptive capacity of the organization, which in turn promoted competitive advantage even in turbulent times. Reliance on individual capital could be seen as a liability: individual capital walked out the door every day and it could fuel competitors if not retained. Externalization or codification strategies were among those receiving the greatest attention and investment because they were seen as strategies to accumulate organizational capital. Artificial intelligence (AI) solutions enhance the impact of externalization strategies. This group of technologies can make existing knowledge more visible by combining existing data, information or knowledge, to the point that one can name the generated knowledge “new”. AI solutions can also replicate externalization, although sometimes imprecisely. Investment on the development and adoption of AI aimed at replicating humans contribution and reducing the organizational reliance on individual capital. Questions have been raised as to the level of competitive advantage that is obtained by organizations when all competitors rely on the same source of organizational capital, meaning AI solutions, instead of relying on different groups of individual capital, meaning nourished, developed and retained individuals that contribute to the mission of the organization. These questions are now joined by considerations on the architecture and commercialization of some AI solutions. Some degree of the liability that represented the reliance on individual capital might have shifted with the access to AI solutions being charged by the query and with every query contributing to improve AI solutions, solutions that do not belong to the organization that uses them. A discussion as to how queries to AI solutions should be considered externalization strategies subject to automated combination and accumulation by the provider of the AI solution is made. Queries to AI solutions and data allowing knowledge

combination and accumulation is argued to be consigned capital. As much as organizations can make use of consigned capital from other organizations, their individual capital can be consigned capital to other organizations.

c) theoretical base

The study analyzes the different kinds of artificial intelligence and their impact and interaction with the traditional kinds of capital. The consideration of previous analyses of new kinds of capital follow: how they were formed and what are their dynamics with the traditional kinds of capital. From these perspectives, the concept of consigned capital is constructed and justified.

d) results or expected results

The expected results include the influence of consigned capital on the individual, group, organization, region and planet level. Organizations once feared that they prepared the individual capital of their competitors. This study questions how much this condition has changed with the advent and large adoption of AI solutions and offers some strategies to avoid the accumulation of consigned capital.

e) originality/value

The study invites closer scrutiny to how the uses of artificial intelligence might affect the traditional kinds of capital, capital accumulation and transformation.

f) practical implications

The study presents arguments for changes in the management of intellectual capital in combination with artificial intelligence and for the diversification of investments currently concentrated in artificial intelligence and, in particular, in generative artificial intelligence.





4.20 Deconstructing the ESG Paradigm: A Comparative Bibliometric Mapping of Environmental, Social, and Governance Research in Accounting

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ESG Paradigm Bibliometric Mapping Accounting Research Digital Transformation

Abstract:

The purpose of this research is a systematic deconstruction of the evolution of the ESG (Environmental, Social, and Governance) paradigm within the accounting discipline over the period from 2005 to 2025. Although sustainability reporting has become an imperative in contemporary business, academic literature continues to suffer from significant thematic fragmentation. This paper seeks to identify key intellectual milestones and research clusters to determine whether a balanced development of all three pillars (E, S, and G) exists within the scientific discourse, or if the focus is primarily placed on environmental aspects. In doing so, it examines whether the greater measurability of environmental factors leads to the marginalization of social and governance dimensions within the knowledge economy.

The methodological approach is based on rigorous quantitative bibliometric mapping of data retrieved from relevant databases, specifically Web of Science (WoS) and Scopus. The study encompasses papers published in leading international accounting journals, employing co-citation analysis to identify theoretical foundations and co-word analysis to visualize the evolution of thematic networks using VOSviewer software. A longitudinal analysis enables the tracking of trends through three key phases: from the initial discourse on voluntary corporate social responsibility (2005–2015), through the phase

of rising awareness following the Paris Agreement (2016–2021), to the recent phase of intensive regulatory standardization (2022–2025) driven by the introduction of the CSRD directive and ESRS standards.

The theoretical foundation of the paper rests on a multidimensional framework that integrates core accounting theories with innovative regulatory concepts. The research primarily draws upon legitimacy theory, which explains ESG disclosures as a tool for maintaining the social contract, and stakeholder theory, which expands the focus of reporting beyond the exclusive interests of shareholders. Special emphasis is placed on institutional theory and the contemporary concept of double materiality. These theoretical frameworks are used to analyze how modern regulation, such as the CSRD directive and ESRS standards, transforms accounting practice from a reactive to a proactive mechanism for managing corporate sustainability.

The expected results of the research point toward a profound intellectual asymmetry within the ESG paradigm. Preliminary bibliometric mapping suggests the dominance of the environmental pillar (E), which accounts for more than half of the total research corpus, while the social component (S) remains methodologically the weakest defined and primarily narrative, hindering its assurance-readiness. However, analysis of the most recent period (2023–2025) reveals the emergence of a new research cluster linking the governance component (G) with digital technologies such as artificial intelligence and blockchain. These findings indicate that digital transformation is becoming a key prerequisite for the objectification and standardization of all ESG dimensions.

The originality and value of the paper are manifested in its deconstructive approach, which does not treat ESG pillars as a monolith but as distinct yet dynamically interdependent entities over a long-time horizon. While most studies treat ESG as a unified concept, this paper utilizes bibliometrics to prove the existence of an “intellectual imbalance” and identifies critical gaps in the literature, particularly in the domain of social reporting. The value of the research is further enhanced by the integration of a digital perspective, thereby establishing a new theoretical framework for understanding the transformative role of accounting in a sustainable knowledge economy.

The practical implications of the paper are manifold and directed toward key stakeholders in the knowledge economy. For the accounting profession, the research identifies a critical need for transforming the accountant's role from a traditional financial analyst to a strategic manager of integrated data, with a specific focus on the skills required for sustainability assurance. For the higher education sector, the results provide empirically grounded guidelines for an urgent curriculum revision, integrating digital literacy and advanced analytics into the core of accounting education. Finally, the study offers management and regulators clear insight into methodological gaps that facilitate the phenomena of “greenwashing” and “social washing”. The paper directly advocates for the development of more robust standards for the social component (S), ensuring greater data comparability and transparency in global capital markets



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4.21 Designing Contemporary Third Places in Rural Austria: A Design-Based Inquiry through the Stammtisch.xyz Prototype

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Author keywords:

Third Places Rural Communities Design-Based Research Social Infrastructure

Place-Making

Abstract:

a) purpose

Informal meeting places – so-called third places (Oldenburg, 1989) – are central elements of social infrastructure: they enable community formation, social cohesion and the everyday exchanges that underpin local knowledge networks and bridging social capital. In rural areas, however, traditional venues such as inns and association rooms are increasingly disappearing under demographic, economic and cultural pressures, often without comparable alternatives emerging in their place. At the same time, existing third place research is dominated by urban perspectives and offers limited transferable insight for rural contexts, where social proximity, visibility and tightly woven networks shape access in distinct ways. The present study addresses this dual gap. It investigates how contemporary third places can be developed, prototyped and iteratively refined in the rural region of the Bregenzerwald (Vorarlberg, Austria), and which spatial, social and organisational factors actively foster informal encounter under rural conditions.

b) design/methodology/approach

The study combines Design-Based Research (Brown, 1992; Collins, 1992) and Design Science Research (Hevner et al., 2004), structured along Hevner's (2007) Three-Cycle Model and informed by the Research through Design tradition (Durrant et al., 2017), in which design itself is treated as a mode of knowledge production. An exploratory pre-

study comprising five semi-structured interviews with local stakeholders and participant observation in existing meeting venues yielded design requirements that were translated into the prototypical encounter format ‘Stammtisch.xyz’. The prototype was implemented over three iterations between March and April 2026 in the foyer of Museum Bezau, at two-week intervals. Its core design elements remained constant – a large blue communal standing table as spatial anchor, a personal host role, donation-based refreshments and an open, programme-free time window – while individual parameters (introduction of a co-host, on-table seating, weekday timing) were systematically varied between iterations. Evaluation followed a triangulated qualitative design combining structured external observation by independent observers, anonymous written reflections by participants and reflexive self-documentation by the researcher in her dual role as host and observer. Qualitative content analysis was conducted iteratively, with cross-iteration synthesis serving as the basis for both ongoing refinement and the derivation of design principles.

c) theoretical base

The work draws on Oldenburg’s (1989) concept of third places and integrates relational spatial theory: Lefebvre’s (1974) social production of space, Löw’s (2008) processes of spacing and synthesis, and Arendt’s (1996) notion of the table as a metaphor for public space. These perspectives are complemented by Putnam’s (2000) work on social capital – with particular attention to bridging social capital (Murayama et al., 2012) – Williams and Kim’s (2019) concept of layering of physical and digital spaces, Gehl’s (2011) principles of triangulation in public space, and affordance theory (Gibson, 2015; Norman, 2013). Bock’s (2016) nexogenous approach situates the study within broader debates on rural marginalisation and community-led development.

d) results or expected results

Informal encounters in rural settings do not emerge on their own. They must be actively initiated and maintained. Low-threshold accessibility (German: Niederschwelligkeit) proved to be not a property of a format but a situated quality produced through the interplay of spatial clarity, social address and temporal continuity. Three constitutive elements emerged: the communal standing table operated as an effective social anchor, structuring interaction without dominating it and producing the spatial co-presence that segmented seating arrangements would have prevented; the host role evolved from a perceived organisational support to a constitutive design element, differentiating into two complementary functions, reception and connection work, as participant numbers grew; recurrence built trust, trust enabled appropriation, and appropriation laid the foundation for self-sustaining social structures. Already by the second iteration, eight returning participants brought additional people; by the third, conversations among participants turned to long-term continuity, possible institutional anchoring, and even the founding of an association. Periphery and movement – the drink station, spontaneous museum tours, the open door – proved as constitutive for encounter as the central spatial setting, suggesting that designed gaps can be more generative than fully

planned arrangements. From these findings, seven design principles for rural encounter spaces were derived.

e) originality/value

The study makes three contributions. First, it shifts the empirical focus of third place research from analytical observation of existing venues to design-oriented inquiry into how new encounter spaces can be brought into being. Second, it addresses a substantive gap by examining third places under specifically rural conditions, where the conventional assumption of neutral accessibility falters and where social visibility itself becomes an access barrier. Third, it demonstrates the value of design-based and design science approaches for social infrastructure research: the prototype functions as an epistemic artefact through which spatial, social and organisational dimensions become analytically tractable in real-world use. The work thereby contributes to ongoing debates around social capital formation, rural innovation and the cultivation of local knowledge communities.

f) practical implications

For municipalities, cultural institutions and civil society initiatives, the study offers concrete, transferable guidance. The most consequential insight is that people, not infrastructure, make the decisive difference: investing in a clearly defined host role with dedicated time and the explicit task of bridging between participants outweighs spatial optimisation, and benefits from differentiation into reception and connection work as numbers grow. Existing rooms – museum foyers, libraries, community halls – can be temporarily activated as encounter spaces through minimal interventions: a single salient object, a recurring format and a welcoming person. Decoupling participation from consumption through donation-based or institutionally supported models lowers access barriers without undermining economic viability. Hybrid communication strategies that combine digital visibility with personal invitation respect the role of informal networks in rural contexts. Above all, recurrence and temporal continuity matter more than reach: regular, predictable formats build trust and enable gradual appropriation, allowing encounter formats to evolve from designed interventions into collectively borne local infrastructure.

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4.22 Development and evaluations of AI-enhanced ecosystems: Lessons from interorganizational collaboration

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Author keywords: ecosystem platform, system of system, AI-component, Evaluation

Abstract:

Evaluating AI-enhanced digital ecosystems—such as system-of-systems platforms—requires methodologies that capture both human and technical interactions. Technical integration involves coordinating heterogeneous components, sensory data streams, and machine-learning (ML) services. This paper outlines an evaluation approach for a multi-component ecosystem that uses sensory inputs, including eye-tracking, brain-interface signals, and mobile-interaction logs, to generate real-time indicators of user state and task performance. These data are processed through ML models supporting classification, anomaly detection, and adaptive feedback. The results contribute to a framework for evaluating interorganizational collaboration in such ecosystems.

Drawing on a case study from a large European project, the methodology focuses on three layers: (1) integration testing to verify interoperability, data exchange, and synchronization of AI-derived indicators; (2) usability and user-experience assessment through demonstrations, structured feedback, and observational studies; and (3) implementation tracking against predefined functional requirements, combining qualitative insights, quantitative ML metrics, and requirement-mapping across development milestones. Broader readiness is assessed using Innovation Readiness Levels (IRL), capturing organizational and market factors alongside technical maturity. This approach supports systematic evaluation of AI-enabled, multi-component ecosystems developed through interorganizational collaboration.

4.23 Developing an AI-Extended approach in Universities: Evidence from the School of Economics and Organisation Sciences – Lusófona University, Portugal

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Author keywords: AI-TPACK; Higher Education; Digital Transformation; Pedagogical Automation

Abstract:

a) purpose

This study examines the integration of artificial intelligence (AI) into the TPACK (Technological Pedagogical Content Knowledge) model, considering the importance of technical skills and the ability to collaborate with AI systems. We propose an integrative and extended model, AI-TPACK, integrating AI-literacy, Human-AI collaborative dimensions, emphasising personalised learning, educational analysis and pedagogical automation, in the university context. We are focusing the study application on the School of Economics and Organisational Sciences at Lusofona University. We also considered, in the sample, the professors and investigators as a pilot case study.

b) design/methodology/approach

The methodologiesto evaluate the theoretical framework proposed, The methodology Structural Equation Modelling (SEM) is used for examining the relational structures proposed in the extended AI-TPACK model, specifically the factors resulting from the analysis of components principal in AI-TPACK constructs: Artificial Intelligence –



Technological, Pedagogical and Content Knowledge; moreover, we have completed our analysis using the Generalised Ordinal Logistic Regression Model to explore the effect of the variables attitudes and demographic overview on Artificial Intelligence.

c) theoretical base

The acceleration of the digital transformation of education highlights an urgent need for teachers, from all fields of study and subject areas, to adapt to new technologies, particularly AI. So, in the theoretical framework, recent literature has referred to the AI-TPACK model, which focuses on the three-way relationship between the constructs of Artificial Intelligence, Technological Pedagogical Content Knowledge (TPACK), and subject-specific knowledge. Encompasses seven components (CK, PK, AI-TK, PCK, AI-TCK, AI-TPK, AI-TPACK) with technological knowledge elements(AI-TK, AI-TCK, AI-TPK) showing the strongest predictive power for overall AI-TPACK proficiency.

d) results or expected results

It is expected that our results will show differences in self-efficacy and attitudes between ECEO school teachers and researchers, which directly and indirectly (via a mediating effect) impact drivers on AI-TPACK; and statistical and expected inference shows different probabilistic impacts of socio-demographic characteristics on Artificial Intelligence – Technological, Pedagogical and Content Knowledge drivers. Moreover, assessing teachers' AI-TPACK knowledge and attitudes regarding AI can provide valuable insights for better training teachers to integrate AI technology into the classroom.

e) originality/value

According to recent literature, we see an opportunity for research to expand and integrate the reviewed literature. We consider an opportunity for research to extend the AI-TPACK, integrating AI-literacy, Human-AI collaborative dimensions, emphasizing personalized learning, educational analysis and pedagogical automation, in the university context. Moreover, the analysis of the impacts of socio-demographic characteristics on Artificial Intelligence – TPACK, using the Generalised Ordinal Logistic Regression Model, is a new insight, and it reinforces the contribution of this study. f) practical implications Based on the findings of this study, Teachers’ ability to update their subject knowledge and improve subject-specific teaching through the use of AI tools. Teachers’ ability to choose and apply AI-based toolsto support the implementation of teaching strategies designed to achieve specific learning objectives. The main implications stemming from our expected results suggest and emphasise that teachers need to achieve a critical balance between technological empowerment and the core of learning. To this purpose, we highlight the importance of teachers’ ability to keep their knowledge of AI-related content updated and to optimise their teaching in specific subject areas using AI tools. Furthermore, based on the expected results, we emphasise that training initiatives should be promoted to improve teachers' ability to select and employ AI in the implementation of pedagogical strategies to achieve teaching objectives.



4.24 Digital money: implications on economy and financial innovations

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Author keywords: digital money, stable coin, cryptocurrency, technology, CBDC

Abstract:

a) purpose

The last decade has constituted one of the most transformative periods in the history of finance and technological development. What initially emerged as an unofficial and niche payment mechanism has evolved into a comprehensive digital assets' ecosystem of significant economic value, both challenging and complementing traditional financial services and infrastructures. Digital money is defined as any monetary asset that exists in electronic, non-physical, and intangible form. It is stored, transferred, and exchanged exclusively through technological and software-based systems, enabling rapid, cashless transactions and efficient cross-border payments. Unlike physical currency, digital money operates through digital networks; however, in many cases it represents the same government-backed value as conventional fiat currency. Digital fiat money, particularly in the form of bank deposits, is likewise maintained electronically within bank accounts and issued within the established framework of commercial banks and central banks. Owing to its high level of stability, regulatory maturity, and institutional backing, this category of digital money does not constitute the primary focus of this research. Digital money can be broadly classified into three main categories:

- digital forms of fiat currencies issued by central banks, commonly referred to as Central Bank Digital Currencies (CBDCs);
- decentralized, blockchain-based forms of cryptocurrencies traded on the asset markets that are not issued or backed by a government and are not legal tender, but can be used as a medium of exchange on peer-to-peer networks; and

- stablecoins typically issued by private entities or decentralized protocols that are designed

to maintain a stable value relative to a reference reserve asset, most commonly fiat currency such as the US dollar, but that don't have the same legal status as currency. A Central Bank Digital Currency (CBDC) is defined as a digital form of a country's sovereign currency that is issued, regulated, and backed by the central bank. It constitutes legal tender and provides a secure, electronic, and publicly accessible alternative to physical cash (Federal Reserve Board, 2026). As a direct claim on the central bank, a CBDC minimizes credit risk when compared to commercial bank money created through the traditional deposit issuance process. Globally, central banks are exploring or implementing CBDCs as part of broader efforts to modernize payment systems, enhance financial inclusion, and improve overall transaction efficiency (European Data Protection Supervisor, 2026). Approximately 87 countries, representing more than 90 percent of global gross domestic product, are currently researching, piloting, or developing CBDC initiatives, while nine jurisdictions have already fully launched state-issued digital currencies. The global momentum toward CBDC development has accelerated for several reasons. Firstly, the COVID-19 pandemic triggered a significant shift in consumer payment behavior toward digital and contactless payments, as well as increased reliance on e-commerce. Secondly, privately issued cryptocurrencies, such as Bitcoin, have experienced substantial technological advancement and valuation growth, raising concerns among policymakers regarding monetary sovereignty, financial stability, and regulatory oversight. Crypto-assets constitute a segment of private-sector digital assets that depend primarily on cryptography and distributed ledger or similar technologies. The crypto-asset market comprises several interrelated segments, including unbacked crypto-assets (such as cryptocurrencies without reserve backing), stablecoins, and decentralized finance (DeFi) arrangements. Their issuance and validation are governed by predefined algorithms rather than by a central institution. The value of most cryptocurrencies is determined primarily by market demand and supply dynamics, which contributes to their generally high price volatility. Within the broader crypto-asset universe, so-called stablecoins constitute a distinct category. Stablecoins are typically issued by private entities or decentralized protocols and are designed to maintain a stable value by being backed by reserve assets, most commonly fiat currency such as the US dollar. Despite their stability objective, stablecoins remain subject to credit, liquidity, and governance risks associated with their issuers and reserve management practices. Due to their rapid growth, structural vulnerabilities, and increasing interconnectedness with the traditional financial system, crypto-asset and stablecoin markets may, at a certain scale, pose risks to global financial stability. In response to these developments, the G20 mandated the Financial Stability Board to coordinate the development of a comprehensive and internationally consistent regulatory framework for crypto-assets. In July 2023, the Financial Stability Board finalized its recommendations on the regulation, supervision, and oversight of crypto-asset markets, as well as specific recommendations for global stablecoin arrangements, which may present more acute financial stability risks due to their scale and cross-border nature (FSB, 2026). From an



economic perspective, crypto-assets constitute a digital innovation with the potential to streamline capital-raising processes, enhance competition, and create new, inclusive financing models for consumers and small and medium-sized enterprises. Furthermore, crypto-assets may function as a means of payment and offer potential benefits in terms of faster, cheaper, and more efficient transactions, particularly for cross-border payments, by reducing reliance on multiple intermediaries. At the same time, these potential benefits must be weighed against risks related to volatility, consumer protection, operational resilience, and financial stability (European Commission, 2026). Digital money also raises important concerns related to privacy, personal freedom, and user autonomy. Many digital money systems collect and store detailed transaction and user data, enabling the monitoring of spending behavior by governments or private entities. Risks include unauthorized data access, data leakage, or the commercial sale of personal financial information. Furthermore, users' control over their assets may be limited due to reliance on intermediaries or platform providers, as accounts or funds may be frozen or restricted due to technical failures, misuse, policy decisions, or operational errors. At the systemic level, widespread adoption of digital money may pose risks to financial stability. These include potential disintermediation of the banking sector, increased susceptibility to digital bank runs, and challenges to the effective transmission of monetary policy. Additionally, environmental sustainability concerns have been raised, particularly in relation to energy-intensive technologies used by some digital money systems. In 2025, the Financial Stability Board conducted a thematic peer review examining the implementation of its global framework for crypto-asset activities across member jurisdictions and beyond. The review highlighted welcome progress, but also identified significant gaps and inconsistencies, emphasizing the need for jurisdictions to prioritize full and consistent adoption of regulatory standards. By the end of 2025, approximately 93% of regulatory authorities had developed frameworks for crypto-assets, with 62% of jurisdictions demonstrating compliance with FSB standards. Leading digital finance hubs, including Singapore, Hong Kong, and the UAE, have advanced rules governing stablecoins and crypto-asset exchanges (PwC Global, 2026).

b) design/methodology/approach

The study adopts a meta-analytical approach to digital money and digital assets, providing a quantitative synthesis of empirical research examining the economic, financial, technological, and regulatory dimensions of digitally native monetary instruments and tokenized assets. This structured methodology involves systematically collecting, evaluating, and statistically integrating results from multiple independent studies. By aggregating these findings, the research aims to generate broader, more reliable insights into the behaviour, risks, and effects of digital money and crypto-assets, while resolving inconsistencies across individual studies.

c) theoretical base

Given the rapid pace of technological innovation in digital finance, the literature reviewed is limited to sources published from 2015 onward. These include peer-reviewed journal articles, academic books and book chapters, policy reports, and



industry publications. This ensures that the theoretical framework reflects the most current developments in blockchain, digital payments, central bank digital currencies (CBDCs), cryptocurrencies, and other tokenized financial instruments.

d) results or expected results

The research is guided by the following core questions and hypotheses:

- What are the economic, monetary, and technological impacts of digital money instruments?
- How does the volatility of cryptocurrencies compare to traditional assets, and are investors and policymakers sufficiently informed?
- To what extent do differing regulatory frameworks influence market efficiency, regional

competitiveness, and regulatory arbitrage, and how can they be optimized? Based on a critical review of available literature, theoretical frameworks, and professional expertise, the study is expected to synthesize often fragmented and contradictory findings, providing an integrated perspective for policymakers, investors, academics, and financial professionals. The meta-analytical approach will allow the identification of patterns, trends, and quantitative effect sizes, providing evidence-based recommendations on economic, supervisory, technological, and financial stability dimensions.

e) originality/value

This research contributes to the literature by consolidating and quantitatively analyzing dozens of empirical and theoretical studies, evaluating their methodologies and results to identify consistent trends and effect sizes. The geographic focus primarily considers the United States and Europe, while also referencing pioneering global cases. By integrating positive and negative aspects of these complementary instruments, the study provides prudent, evidence-based recommendations for monetary authorities, regulators, investors, and other stakeholders. Regardless of the specific form of future money, these innovations are expected to influence the future of financial work, market competition, user experience, and global financial ecosystems.

f) practical implications

Digital money ecosystems require careful design and oversight to balance innovation, efficiency, and financial stability. Meta-analytical evidence indicates that digital money instruments function primarily as high-risk, high-return financial assets, providing partial diversification benefits. While digital money can enhance payment efficiency and expand financial access in certain contexts, its inherent volatility and regulatory uncertainty limit its effectiveness as a stable medium of exchange. Institutional and regulatory developments, particularly the implementation of Central Bank Digital Currencies (CBDCs), are expected to shape the long-term integration of digital money into the global financial system. Digital money can improve cross-border remittance speed, reduce transaction costs, and enhance access to financial services in underbanked or underserved regions. Research findings suggest that digital money may also strengthen



payment efficiency, enhance monetary policy transmission, and reduce reliance on private crypto-assets. The harmonized regulatory framework—encompassing the Markets in Crypto-assets Regulation and Distributed Ledger Technology Pilot Regulations—supports market innovation while ensuring proportionate treatment of crypto-asset issuers and service providers. This framework facilitates cross-border scaling of businesses and delivers benefits in the form of faster, cheaper, and safer financial services and asset management. Banks' exposures to crypto-assets are subject to the Basel regulatory framework, which defines crypto-assets as private digital assets relying on cryptography and distributed ledger technologies (DLT) or similar technologies. The prudential treatment of CBDCs, however, is not explicitly addressed within the Basel framework (Bank for International Settlements, 2026). Beyond financial stability, crypto-assets and stablecoins raise broader policy considerations, including the need for robust consumer and investor protection, market integrity protocols, anti-money laundering and countering the financing of terrorism (AML/CFT) compliance, implementation of international sanctions, prevention of tax evasion, avoidance of circumvention of capital controls, and the regulation of illegal securities offerings. While these issues are addressed at national and international levels, they fall outside the primary focus of the FSB, which concentrates on systemic financial stability. The overarching goal for policymakers and regulators is to achieve a sustainable coexistence of technological innovation, operational efficiency, and regulatory compliance, ensuring that digital money can contribute positively to global financial systems without undermining stability or consumer protection.

ACKNOWLEDGEMENT:

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4.25 ECO-INNOVATION VS. ECOLOGISM

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Author keywords: ecological innovation (eco-innovation), environmentalism

Abstract:

Eco-innovation constitutes one of the key areas of research in the contemporary economy. This article aims to present the essence of eco-innovation from the perspective of ecologism. To achieve this goal, the article first reviews and systematizes the most important definitions of eco-innovation found in the literature, thereby organizing theoretical approaches and identifying their common elements. Next, the significance of environmental protection in the context of selected religious traditions is analysed, highlighting the axiological and ethical foundations of pro-ecological activities and their influence on the development of eco-innovations. The article then discusses ecologism as a growing socio-cultural and worldview trend, examining its links to eco-innovation processes. It is pointed out that, although ecologism is sometimes interpreted as the seed of an alternative value system with quasi-religious characteristics, eco-innovations play a key role in the practical implementation of its principles in both the economy and social life. A descriptive approach and critical analysis of the literature are employed, allowing for a multifaceted examination of the problem under study.

4.26 Economic Growth, Energy Mix and CO_2 Emissions: Island-by-Island Environmental Kuznets Curve Evidence from the Azores

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Author keywords: Environmental Kuznets Curve; CO2 emissions; economic growth; power generation; renewable energy; fixed effects panel-data

Abstract:

This paper investigates the link between economic growth and CO_2 emissions in the Azores through an island-by-island application of the Environmental Kuznets Curve (EKC) hypothesis. In 2025, 68.5% of energy production was based on fossil fuels - namely fuel oil and diesel - and the sector accounted for nearly half of total CO_2 emissions. The Azores' condition of double insularity - both in relation to the mainland and within its own configuration of nine islands, some separated by distances of up to 600 km - underscores the need for a disaggregated analytical approach. Each island represents a distinct socio-economic and energy system, with marked differences in GDP, population size, and energy mix. Furthermore, all islands operate as isolated electrical systems, each with its own generation mix, varying degrees of renewable energy penetration, and specific sectoral consumption patterns across households, commerce and services, and

industry. Thus, an aggregate analyses at the archipelago level lacks important intra-regional dynamics. CO_2 emissions observed across islands, reflect the differences in both economic scale and power generation systems. In absolute terms, São Miguel and Terceira emerge as the largest emitters, in line with their higher levels of GDP and population. In contrast, islands such as São Jorge, Pico, Faial, and Corvo display higher carbon intensity. The share of power generation from renewable sources also varies considerably, ranging from just 0.3% in São Jorge to 60.4% in Graciosa. In addition, the composition of renewable energy differs across islands: while some rely more heavily on dispatchable sources such as geothermal and hydropower, others depend predominantly on non-dispatchable sources, including wind and solar. In light of this insular heterogeneity, energy transition strategies must be carefully tailored to the specific conditions of each island, without hampering economic growth. This study uses a macro panel dataset comprising the nine islands of the Azores over the period 2005–2023 (N = 10; T = 18), resulting in 180 observations. The panel is characterized by a small cross-sectional dimension and a moderate time dimension, typical of macro panels. Given the limited number of units and the likelihood of unobserved, time-invariant heterogeneity across islands, a Fixed Effects approach is adopted. This method controls for island-specific characteristics and exploits within-island variation over time, ensuring consistent estimation. The chosen framework is appropriate for small-N, moderate-T panels and supports robust inference in the presence of structural differences across units. The analysis is assembled combining power-sector CO_2 emissions, GDP, generation by technology (fossil fuels, wind, solar, hydro, geothermal), and sectoral power consumption (residential, industry, services, commerce). We estimate EKC, both quadratic and cubic specifications, and explicitly model structural drivers of emissions through the production mix and demand composition. The findings aim to provide deeper insights into the growth-environment nexus in small island systems and to support the design of more effective and territorially differentiated energy and climate policies.

4.27 Enhancing AI-Based Automation Adoption in the South African Clothing Manufacturing Subsector: 'Blue-Collar' Employee Perceptions and Organisational Recommendations

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Author keywords: AI-based automation adoption**,** Blue-collar employees**,** Workforce upskilling**,** Inclusive innovation**,** Southern Hemisphere

Abstract:

AI-based automation is increasingly positioned as a strategic enabler of manufacturing competitiveness, with potential benefits including improved production efficiency, reduced costs, and more environmentally sustainable operations. However, the adoption of AI-based automation also introduces significant workplace change, with consequences likely to be experienced most strongly by 'blue-collar' employees whose routines, roles, and skill demands may be disrupted. While much of the automation and Industry 4.0 literature is produced in Northern Hemisphere contexts, less attention has been given to how AI-enabled workplace transformation is perceived and negotiated in Southern Hemisphere economies, including BRICS countries such as South AfricaThis study offers exploratory insight into AI-based automation adoption in the Western Cape clothing manufacturing subsector—a declining but strategically important employment sector within South Africa that is under sustained pressure from global competition and post-Covid disruptions in the knowledge economy, including the rise of fast-fashion e-commerce platforms such as Shein and Temu. Using qualitative focus groups with blue-collar employees in this subsector, the study identifies key perceptions shaping readiness and resistance to AI-based automation adoption. Five themes were identified: (1) AI-based automation as a necessary integration, (2) automation perceived as unable to replace human value in production processes, (3) threat and insecurity as barriers to adoption, (4) limited growth opportunities as barriers, and (5) perceived lack of management support as a barrier.

The findings highlight that successful and socially sustainable automation adoption requires more than technological investment; it depends on organisational practices that enable employee voice, fair change processes, and credible learning and development

pathways for role transition and upskilling. By foregrounding a Southern Hemisphere / BRICS employee perspective, the study contributes to global debates on how artificial intelligence, knowledge, education, and citizenship intersect in the post-Covid workplace, and offers practical recommendations for inclusive automation adoption in labour-intensive manufacturing contexts.

4.28 Enhancing collaborative decision-making processes with intelligent agents

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Author keywords: Collaborative decision-making, decision processes, human judgments, intelligent agents, knowledge sharing, Industry 4.0 and 5.0 processes, case studies

Abstract:

a) Purpose

Collaborative decision-making is very important in business, industry, and regulatory environments. Industry 4.0 and 5.0 require group decision-making and negotiation mechanisms that capture the preference structures of participating stakeholders to support end-to-end business processes, supply chains, and nonroutine business tasks, such as the provision of services available on the electronic market in a form that is customized to the needs of customers (Bregar, 2023). However, collaborative decision-making faces several challenges, including a lack of structure in the problem-solving process, slow asynchronous interaction, resource unavailability, insufficient information, complexity, rushed communication, inefficient consensus, weak methodology, and others. These issues can be resolved through the structured group processes, such as Delphi (Bregar, 2024), or through digitalization and automation (Bregar, 2022).

Intelligent agents and agent-based systems have recently become a trending technology to automate problem-solving and business processes (Gartner, 2025). This approach first gained relevance around the turn of the century, particularly in automated systems and negotiation processes for B2B and B2C commerce (Lomuscio et al., 2003). Although interest in this field has decreased slightly over the past decade or two, it has regained momentum due to advancements in AI (Artificial Intelligence) and LLMs (Large Language Models). Therefore, agent-based systems are a key Gartner trend for 2026, allowing complex interactions and collaboration of AI agents to automate workflows and decisionmaking processes across various sectors. However, many issues arise with automated systems that make decisions autonomously using AI, LLMs, and rule-based mechanisms, including bias, ethical considerations, transparency, awareness, lack of expertise, reliability, and the inability to accurately and fully represent human preferences. Our previous study found that decision-making should be human-centric, allowing decision-makers to consistently and properly incorporate personal judgments (Bregar, 2025). Therefore, this paper builds on our preceding work (Bregar, 2022 to 2025) to study the efficiency and applicability of intelligent agents and agent-based systems in



collaborative decision-making processes. Its goal is to determine whether and to what extent agents can enhance group decision-making; identify potential pitfalls and challenges; determine how autonomous and human-centred collaborative decision activities can fit together; establish an integrated model for agent-facilitated decision-making; and demonstrate the benefits of the combined approach with case studies.

b) Design/methodology/approach

The study builds on our previous work (Bregar, 2022 to 2025) by applying the following methodology:

1. We conduct a systematic literature and state-of-the-art review of agent-based systems and their application in collaborative decision-making processes.
2. We develop a conceptual model that systemizes characteristics, practices, and requirements of agent-based systems that can facilitate collaborative decision processes. This model aims to address benefits, limitations, implementation approaches, enabling technologies, and application scenarios. It specifies rules and mechanisms to strengthen collaborative decisionmaking, but also identifies potential risks from cognitive, social, and procedural perspectives.
3. We propose a taxonomy of agent-based decision systems and introduce a generic model for multi-agent decision-making. The proposed model supports multi-lateral negotiations and collaborative consensus-seeking protocols. It is based on multi-criteria decision analysis and AI-driven knowledge management.
4. We identify, systemize, and describe possible applications of agent-based decision systems. We present several use cases, including a multi-agent electricity supply negotiation protocol for self-sustaining energy communities, an agent-based system for autonomous assessment of cyber-attack mitigation strategies, and an agent-supported preference disaggregation approach for convergent consensus-seeking in Industry 5.0 processes.
5. We examine how and to what extent intelligent agents can enhance collaborative decision processes and improve decision-making efficiency in comparison to standard multi-criteria and Delphi processes. We conduct a simulation study to determine the validity of decisions, the convergence of opinions, and the ability of autonomous guidance.

c) Theoretical base

The research covers several theoretical bases: artificial intelligence, intelligent agents, agent-based decision support systems, multiple criteria decision-making, decision methods and processes, human reasoning, knowledge management, Industry 4.0 and 5.0, business processes, simulation studies, and applications in energy, e-commerce, and cybersecurity.

d) Results or expected results

As follows from the methodology section (B.), the results include the SOTA review, conceptual model, applications, and experimental results showcasing the validity of the



approach. The paper shows the potential and challenges of incorporating intelligent agents into collaborative decision processes. It explains the strengths and opportunities of such a combined approach in the knowledge economy.

e) Originality/value

Agent-based systems are a very trending topic. They can automate workflows and decision processes in various sectors. However, there is a lack of research that systematically investigates the efficiency, challenges, and requirements of using intelligent agents in collaborative decision making processes in the knowledge economy. It is necessary to provide a methodology and guidance for incorporating agent-driven technology into collaborative processes and integrating it with human-centric decisionmaking to improve the rationality, knowledgeability, convergence, and validity of resulting decisions. The presented research fills this gap. It introduces a referential model, proposes a generic process, studies relevant properties and requirements, identifies synergies and challenges, presents several use cases to demonstrate the theory and approach, and assesses the potential for enhancements in the collective tasks. It sheds light on the coexistence of agent-based technology and human-centred group decision-making in ecosystems of Industry 4.0 and 5.0. It consequently has significant value in these ecosystems for optimizing business processes, enhancing resource utilization, and improving the rationality of outcomes.

f) Practical implications

There are many practical implications and applications. The presented results are relevant to various industries and areas because AI systems and intelligent agents are becoming part of diverse business processes, corporate environments, and knowledge economies. They can enhance key collaborative decision-making and problem-solving processes, provided that AI limitations are properly addressed and human judgments, preferences, requirements, needs, and expertise are sufficiently incorporated.

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4.28 Enhancing Relevance of Higer Education Initiatives for Change in Organizations

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Author keywords: Knowledge Management Education, Reflective practice, student involvement, student active education methods, organizational change

Abstract:

a) purpose

This paper examines the relevance of higher education for contemporary working life. It presents a case study from a Norwegian governmental organization in which a student enrolled in a Knowledge Management programme has contributed to organizational change by applying newly acquired knowledge in her own workplace. By actively engaging in the study programme—participating in class discussions and assignments—and systematically translating theoretical insights into concrete actions in her department, a change process has been initiated and sustained. The "climate" in the department has shifted, and employees now operate more in line with key principles of a learning organization. The study explores how targeted facilitation of reflection, inclusion, and active involvement in the change process can support such a transformation. The purpose is twofold: (1) to understand how higher education in Knowledge Management can be effectively transferred to practice, and (2) to identify the mechanisms through which one student-manager can influence organizational culture and behavior.

b) design/methodology/approach

The study uses a qualitative research design based on semi-structured interviews. The primary informant is a middle manager in the department who is also a student in the Knowledge Management programme. To capture multiple perspectives on the change process, several of this manager's subordinates were also interviewed. All interviews were audio-recorded, transcribed verbatim, and analyzed using a thematic analysis approach. This method enabled the identification of patterns, recurring themes, and perceived changes in the department's work practices, learning culture, and

collaborative climate. The analysis focuses on how the student's educational experiences influenced her leadership practices and how these practices were perceived by her team.

c) theoretical base

The theoretical foundation of the study draws primarily on Knowledge Management, learning organization theory, empowering leadership, reflective practice, change management and human resource development. These perspectives are combined in order to illuminate the mechanisms that shape the introduction of new ways of working, and to understand how they can foster growth and development among employees. In addition, the study engages with educational theories and methods, with particular emphasis on the flipped classroom and experiential learning. These approaches are examined as potential keys to deeper understanding of the curriculum and more effective transfer of knowledge from the classroom to the workplace. By connecting these pedagogical methods to organizational outcomes, the paper seeks to bridge the gap between educational design and practical impact.

d) results or expected results

The expected findings are that the subordinates have developed a more proactive understanding of their role in contributing to the workplace, learning with and from each other, and engaging in continuous professional development as practitioners. The study anticipates that the employees will be able to describe and recognize specific changes in leadership style, communication, and collaboration, and to confirm that these changes are associated with the middle manager's participation in the Knowledge Management programme. Furthermore, the way the flipped classroom has been implemented over several years in this programme is expected to emerge as a critical success factor. The case may thus illustrate how this pedagogical model can be relevant not only for Knowledge Management education, but also for other types of higher education and, in particular, for management and leadership development programmes.

e) originality/value

In many cases, students are capable of identifying "the problem" at their workplace, yet they tend to present ready-made "solutions" to colleagues and expect immediate change. Resistance and opposition in the organization can often be interpreted as a consequence of insufficient information, limited involvement, and a lack of shared ownership of the change process. This paper argues that higher education can and should go beyond equipping students merely with analytical tools and proposed solutions. It should also provide them with practical strategies for implementing change in collaboration with others. The originality of the study lies in its focus on how a specific educational design has enabled a student to move from problem diagnosis to inclusive, stepwise change implementation in her own organization. By linking pedagogical methods, leadership behavior, and organizational outcomes, the paper offers value to both educators and practitioners. It highlights how thoughtfully designed educational experiences can foster not just understanding, but also the capability to drive participatory change.



f) practical implications

The experimental and practice-oriented approach to teaching used in this Knowledge Management programme—refined over several years and supported by multiple case experiences—appears to have contributed to meaningful and observable organizational change. These findings may be of interest to scholars and practitioners involved in the design of higher education programmes, particularly within management and leadership education. The study suggests that integrating flipped classroom techniques, experiential learning, and a strong emphasis on reflective and empowering leadership can enhance the transfer of learning to the workplace and support more effective, inclusive change processes.



4.29 Epistemic Resilience under Pressure: Designing Lightweight AI Governance in Craft and Trade SMEs

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Author keywords: Artificial Intelligence, AI Governance, Critical Thinking, Decision Making, Epimestic Resilience, Tacit Knowledge, SMEs

Abstract:

The integration of artificial intelligence (AI) into small and medium-sized enterprises (SMEs) in craft and trade sectors is reshaping not only how decisions are made, but how knowledge is interpreted, validated, and trusted. While existing research highlights the importance of maintaining critical thinking and epistemic resilience in AI-assisted environments, these discussions largely remain detached from the realities of practice. In contrast, craft-based SMEs operate under conditions of time pressure, limited resources, and reliance on tacit, experience-based knowledge. This paper argues that under such conditions, epistemic resilience cannot be treated as an individual or cultural capability alone, but must be understood as a structurally constrained organisational phenomenon.

In craft and trade contexts, decision-making is typically fast, situational, and grounded in embodied expertise rather than formal analysis. At the same time, AI systems produce outputs that are fluent, confident, and perceived as authoritative, thereby reinforcing cognitive tendencies such as automation bias and reliance on cognitive ease. Empirical studies show that users tend to align with AI-generated outputs even when aware of their limitations, suggesting that awareness alone is insufficient to safeguard independent judgment. This fragility is not incidental but structurally embedded in the conditions of craft-based work.

The paper identifies a fundamental tension between two epistemic logics: experiential knowledge rooted in practice and algorithmic inference derived from data. Under time pressure, this tension is not resolved through deliberate reasoning but often defaults toward the more fluent and readily available option - typically the AI output. As a result, epistemic resilience becomes fragile precisely in those contexts where it is most needed.

To address this challenge, the study introduces the concept of lightweight AI governance as a practical extension of the epistemic resilience framework. Lightweight governance refers to minimal, resource-efficient organisational practices that embed reflection into everyday workflows without requiring formal governance structures or specialised expertise. The model translates the three dimensions of epistemic resilience - cognitive vigilance, organisational learning, and reflexive governance - into micro-level interventions suited to craft SMEs. These include structured “second-look” routines to

interrupt automatic acceptance of AI outputs, systematic documentation of human overrides to preserve experiential knowledge, and informal reflection practices that turn disagreement between human and machine into organisational learning. Rather than slowing down decision-making, these practices introduce targeted moments of reflection that maintain interpretive agency under conditions of pressure.

The paper further argues that epistemic resilience is inherently bounded. Cognitive biases such as fluency effects and authority perception cannot be eliminated but only mitigated through structural design. This leads to the concept of bounded epistemic resilience, which recognises that critical reflection is always constrained by time, cognition, and organisational context. Consequently, the goal is not to eliminate dependence on AI, but to design conditions under which human judgment remains active, contestable, and adaptable.

By situating epistemic resilience within the specific context of craft and trade SMEs, this study contributes to the literature in three ways. First, it contextualises a largely abstract concept within a high-pressure, practice-driven environment. Second, it extends the framework through the introduction of lightweight AI governance as a feasible organisational approach. Third, it reframes resilience as a structurally embedded capability rather than an individual competence.

This study adopts a conceptual research design, combining a structured literature synthesis with theory-driven model development. Drawing on cognitive psychology, organisational theory, and emerging empirical findings on human-AI interaction, the paper integrates existing insights to analyse how epistemic resilience operates under the specific conditions of craft and trade SMEs.

Given the limited empirical research on AI-supported decision-making in resource-constrained, practice-based environments, a conceptual approach is appropriate to develop a context-sensitive framework. The analysis follows an iterative process of identifying key tensions between human and algorithmic reasoning, transferring established theoretical constructs to the SME context, and deriving a set of organisational design principles.

The resulting model of lightweight AI governance represents a theory-informed extension of the epistemic resilience framework, tailored to the operational realities of craft-based organisations



4.30 ESF in Portugal – an assessment (2009-2023)

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Keywords: European Social Fund, Portugal, 2008-2023, Context, Investment, Outcome

Abstract:
This paper analyses the investment of the ESF in Portugal from the point of view of HRD. It follows and adjourns Tomé, 2013, who analysed the period 1986-2008. It is an important question given that in the current seven years (2021-27) the EU plans to invest a lot on Portugal through the ESF. It is decisive to make an update on that assessment, We use a methodology based in three steps, the first being the HRD setting (Garavan, Morley and McCharty, 2016), the second the HRD policies (Tomé 2012 and Tomé 2013) and the third the ESF impact (Tomé and Goyal, 2016). We conclude that while the setting was stable, and favourable, and the policies increased, quality remains an issue and EU considerations are fundamental.

4.31 Film O'Clock Industry Hub: Facilitating Professional Networking and Intercultural Learning through a Digital Platform

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Author keywords: Hybrid digital platforms; Transnational collaboration; Intercultural learning; Knowledge transfer, Film festivals.

Abstract:

a) purpose

The Film O'Clock International Festival has introduced an alternative model in the organisation of transnational cultural events, since its inception in 2021. In 2026, the sixth edition takes place simultaneously in twelve territories across Europe and Africa. The centrepiece of this multi-territorial model in this new edition is the Film O'Clock Industry Hub, a digital platform designed to facilitate project pitching and professional networking through smart digital modules and personalized recommendation tools. This research analyses some interconnected dimensions of the platform's impact: its effectiveness as a learning environment for film industry professionals, the results of intercultural collaboration within its transnational framework, and the models of digital innovation it represents, compared to traditional and location-based festivals such as the Berlinale and Cannes, wellknown also for their professional markets.

b) design/methodology/approach

The research has three main objectives: first, to empirically assess the Film O'Clock Industry Hub's effectiveness as a professional training environment by examining user involvement patterns, and knowledge acquisition outcomes; second, to analyse intercultural collaboration outcomes by investigating partnership formation and coproduction development among platform participants; and third, to develop a comparative evaluation for understanding digital innovation models in transnational cultural events by contrasting the Film O'Clock multi-territory approach with traditional location-rooted festival models. The research adopts a qualitative case study approach focused on the Film O'Clock Industry Hub. It draws on platform observation, document analysis, and insights from existing qualitative research on digital and hybrid film festivals. The study is informed by comparative analysis, contrasting the Film O'Clock multi-territory model with established location-centred festivals such as Berlinale and Cannes, in order to evaluate differences in networking structures and collaboration patterns.

c) theoretical base

Earlier research on intercultural skills in film festivals shows that these events act as organisational learning spaces, where cultural intelligence directly shapes collaborative outcomes (Radu & Radu, 2024). Smits (2023) shows that hybrid festival formats, while disrupted, can still support professional networking and broaden access beyond geographic limits. Building on these perspectives, the Film O'Clock Industry Hub develops purpose-built digital modules for professional interaction, moving beyond emergency pandemic adaptations toward a deliberately designed hybrid model. The platform's targeted recommendations represent a technological evolution of the networking functions that traditional festivals accomplish through physical proximity and unplanned meetings. Looking at different festival models helps underscore the contrasts between multiterritory and location-centred approaches. Traditional major festivals like Berlinale and Cannes build their cultural prestige on their long-standing reputation, acting as central hubs in global film networks (Vallejo & Peirano, 2025). These events offer intensive but time-limited opportunities for networking, bringing industry professionals together in one place for concentrated exchanges. By contrast, the Film O'Clock model spreads its activities across multiple locations at the same time, forming a decentralised network. While location-rooted festivals privilege those with the resources to travel to the venues, multi-territory models can democratize access and create more unbiased conditions for participation throughout diverse geographic and economic contexts, or online. This transnational dimension of Film O'Clock'Europe-Africa framework confronts major gaps in festival scholarship. Petty's work on African film festivals and transnational flows of living cultural heritage emphasises that festivals function as spaces where culturally related knowledge circulates across borders, challenging centre-periphery dynamics inside global film culture (Petty, 2025). The simultaneous multi-territory model disrupts traditional hierarchies by positioning African and European territories as coequal nodes in a distributed network rather than peripheral participants in a European-centred event. Regarding the digital innovation in cultural platforms, it goes beyond just technology. It opens up new ways of engaging audiences and professionals and creating value. Recent research on transmedia festival design shows that combining online and in-person experiences allows both audiences and industry participants to interact in richer and in more integrated ways (Fischer & Steagall, 2021). The Film O'Clock Industry Hub tries to apply these ideas through smart digital modules and processes, using algorithmic recommendations to connect professionals more effectively. Yet, important questions remain about how these technological tools shape intercultural collaboration. Do AI-based matching systems enhance or limit the spontaneous encounters that often spark creative partnerships? Olibet's qualitative analysis of Films Femmes Méditerranée employed interviews with festival workers to understand how digital media maintained transnational approaches to film culture and created spaces for filmmakers and audience encounters (Olibet, 2024). Another study, of Chilean film festivals combined online observation with interviews with organisers to examine how digital platforms engaged audiences and facilitated networking (Peirano & Ramírez, 2023). These research approaches, combining



qualitative interviews, platform observation, and document analysis, provide a robust framework for evaluating the Film O'Clock Industry Hub's effectiveness as a learning environment and a facilitator of collaboration. Cultural diplomacy theory, as applied to film festivals by Nicoletti and Silva, emphasises how festivals mediate cultural difference and encourage mutual understanding across national boundaries (Fetter Nicoletti & Silva, 2021). Knowledge transfer theory, examined in Indo-German collaboration contexts by Songate and colleagues, provides models for understanding how professional knowledge circulates across cultural and organisational boundaries (Songate et all, 2023). Applying the frameworks to the Film O'Clock context necessitates examining how digital platform affordances, such as non-simultaneous communication and multimedia presentation formats, shape intercultural learning processes and joint outcomes.

d) results or expected results

This study is important both in theory and in practice, because it helps us see how digital platforms actually shape professional learning and intercultural collaboration in the creative industries. At the same time, it gives festival organisers, cultural policymakers, and platform designers concrete ideas for building digital infrastructures that really work for transnational cultural exchange. Outcomes like new partnerships, co-productions, and greater project visibility show how effective a platform can be and guide the next steps for the Film O'Clock model, while also inspiring other cultural initiatives. As more festivals and events adopt deliberately hybrid and digital formats, understanding how platforms like the Film O'Clock Industry Hub foster learning and collaboration, is key to creating dynamic cultural networks that are inclusive and sustainable.

e) originality/value

The originality of the work lies in its focus on a specially designed multi-territorial digital platform, conceived from the outset as a hybrid transnational model rather than as an emergency response to the COVID-19 pandemic. Through the examination of a decentralised structure of Europe-Africa festivals, the study brings new perspectives on alternative models of cultural collaboration, challenges European-centric festival hierarchies, and expands existing research on intercultural learning in digital and hybrid contexts.

f) practical implications

The findings provide practical information for festival organisers and digital platform designers interested in developing inclusive and efficient infrastructures for transnational cultural exchanges. The study offers guidance on how digital platforms can support professional learning, facilitate intercultural collaboration, and inform future iterations of hybrid festival models. This information is particularly relevant given that cultural events are increasingly adopting digital and cross-territorial formats.

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4.32 From Custodians to Facilitators: A Participatory Framework for Co-Curating Ephemeral Heritage in Academic Libraries

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Author keywords: Participatory Archives, Ephemeral Heritage, Social Exchange Theory, Cultural Warrant, Community Co-Curation.

Abstract:

a) purpose

In the evolving landscape of the Knowledge Economy, academic libraries are increasingly pressured to transition from static repositories of physical books to dynamic infrastructures that foster social engagement and knowledge creation. While the "post-custodial" turn in archival science, which advocates for stewardship over ownership, is well-documented in theoretical literature, there remains a significant gap in its practical operationalization. Librarians frequently struggle to translate the abstract ideals of participatory archives into concrete workflows that effectively engage communities.

The purpose of this paper is to bridge this gap by presenting a validated, empirical model for co-curation. It examines the digitization and preservation of "ephemeral heritage", specifically, local parish feast programmes (festi), through the Kollezzjoni Programmi tal-Festa (KPF) project at the University of Malta's Junior College Library. The study aims to demonstrate how academic institutions can transform into "social facilitators," leveraging community knowledge to preserve cultural assets that would otherwise be lost. By analyzing the KPF initiative, this paper provides a roadmap for libraries to move beyond the traditional "custodian" role and become active agents in the democratization of local history.

b) design/methodology/approach

This research adopts a longitudinal, qualitative-dominant mixed-methods single-case study design. The scope of the study centers on the Kollezzjoni Programmi tal-Festa (KPF), a digitization initiative launched in 2019 that crowdsources materials from local communities in Malta.

The methodological approach utilizes two primary data streams:

1. Qualitative Researcher Analysis: This involves an iterative review of the project's lifecycle, including outreach strategies, donor interactions, and the friction points encountered between institutional standards and community expectations.
2. Quantitative Repository Analytics: The study analyzes five years of usage data (2019–2024) from the OAR@University of Malta (the institutional repository). This data tracks download rates, search queries, and engagement spikes to measure the effectiveness of the metadata strategies employed.
This dual approach allows for a holistic evaluation of the project, correlating the "soft" elements of social engagement strategies with the "hard" metrics of digital item usage. The study operationalizes these findings into the "Community-Academic Co-Curation Model," a four-phase cyclical framework (Outreach, Ingest, Description, Dissemination) designed for replicability.

c) theoretical base

The research is grounded in the convergence of three distinct theoretical frameworks, creating a multidisciplinary lens suitable for the Knowledge Economy:
1. Post-Custodial Archival Theory: This serves as the overarching paradigm, challenging the traditional view that archives must physically own materials to preserve them. The paper posits that in the digital age, the "value" of the library lies in access and context rather than possession.
2. Social Exchange Theory (SET): To understand community motivation, the paper applies SET, which posits that social behavior is the result of an exchange process. The study frames the interaction between the library and the community as a "reciprocal calculation." The library exchanges "institutional prestige" and "digital immortality" (preservation) for the community's "social capital" (access to private collections and tacit knowledge).
3. Cultural Warrant: In the domain of knowledge organization, the paper challenges the hegemony of the Library of Congress Subject Headings (LCSH). It utilizes the theory of Cultural Warrant to argue that metadata serves the user best when it reflects the specific language and context of the community being served, rather than imposing external, standardized terminologies.
d) results or expected results

The study yields both quantitative evidence of success and qualitative insights into community dynamics:
• The Efficacy of Local Subject Headings (LSH): The quantitative analysis reveals that abandoning rigid adherence to LCSH in favor of vernacular terms (LSH) significantly enhanced discoverability. The data shows a 329% increase in engagement with specific items when local terminology was synchronized with real-world cultural events. This confirms that "bibliographic purity" often comes at the cost of user access, whereas Cultural Warrant drives utilization.
• The "Rivalry Effect" as a Driver: Qualitatively, the study identifies a phenomenon termed the "Rivalry Effect." In the context of Malta's highly competitive village feast

culture, the library inadvertently tapped into inter-community rivalry. When one community's history was digitized, rival communities were motivated to participate to ensure their own history was represented. The study finds that this competitive social capital can be leveraged as a powerful engine for content acquisition.

• The Facilitator Framework: The primary result is the definition of the "Facilitator Framework." The study confirms that successful co-curation requires the librarian to act as a bridge-builder. The results show that passive "Calls for Content" fail; success is dependent on active, personalized outreach that frames the donation as a contribution to national identity.

e) originality/value

This paper addresses a critical scarcity in Library and Information Science (LIS) and Knowledge Management literature: the lack of empirical "how-to" models for participatory heritage.

• Operationalizing Theory: While many papers argue why libraries should be participatory, this paper details how to execute it, offering a tested workflow that manages the tension between professional standards and community chaos.

• Focus on Ephemera: By focusing on "ephemeral heritage" (disposable items like feast programmes), the paper highlights a category of knowledge often ignored by formal history but vital to social memory.

• Reimagining the Librarian: The paper re-evaluates the professional identity of the librarian, shifting the value proposition from "gatekeeper of the stacks" to "facilitator of social flows." This aligns with the TAKE Conference's focus on the changing nature of work in the knowledge sector.

f) practical implications

The findings offer immediate, actionable insights for practitioners in academic libraries, museums, and cultural heritage sectors:

1. Adoption of LSH: Catalogers should not fear deviating from international standards (like LCSH) when dealing with hyper-local content. Localized metadata is a mechanism for inclusion and higher visibility.

2. Leveraging Social Dynamics: Outreach strategies should not be sterile. Institutions should understand the social dynamics (including rivalries and pride) of their target communities and tailor their communication to trigger these "social exchange" motivations.

3. The Library as a Brand: The success of the KPF demonstrates the need to "productize" heritage collections. Libraries must adopt marketing-adjacent strategies, treating the archive as a brand that offers value to the community, to sustain engagement.

4. Sustainable Workflows: The proposed "Community-Academic Co-Curation Model" provides a scalable template for institutions with limited resources to initiate similar projects, transforming the library into a living, social infrastructure.



4.33 From Family Values to Digital Futures: How Socioemotional Wealth Shapes Strategic Transformation in SMEs

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Author keywords: Family firms; SMEs; Digital Transformation; Strategic Growth; Socioemotional Wealth

Abstract:

a) purpose

The rapid development of digital technologies is significantly changing competitive landscapes and reshaping how companies develop and execute their strategies. Organizations are increasingly required to incorporate digitalization into their strategic planning to stay competitive, boost operational efficiency, and seize new growth opportunities. Although a growing body of research examines digital transformation in various organizational contexts, relatively little focus has been given to the unique dynamics of family-owned businesses, especially within the small and medium-sized enterprise (SME) sector. Family firms make up a large part of the global economy and dominate the SME sector across Europe. However, their governance structures, decision-making processes, and strategic priorities often differ from those of non-family firms because of family involvement and the pursuit of non-economic goals. In particular, family businesses often focus on preserving their family legacy, identity, and control, along with financial performance. These traits can affect how such firms approach technological change and strategic shifts. Against this background, this study aims to examine how family ownership influences the strategic approach to digital

transformation in SMEs. Specifically, it investigates whether family firms show different patterns of strategic planning and digitalization compared to non-family firms, and how these differences can be explained through the lens of Socioemotional Wealth (SEW). By exploring the connection between ownership structure, strategic growth focus, and digital adoption, this research seeks to deepen the understanding of how family-controlled SMEs handle the challenges and opportunities of digital transformation.

b) design/methodology/approach

To examine these issues, the study uses a quantitative empirical approach utilizing secondary data from Flash Eurobarometer 486, a large-scale survey conducted across European Union member states and selected non-EU countries. The dataset includes information from over 11,800 firms, providing a comprehensive view of firms' strategic priorities, innovation activities, and digitalization efforts. The analysis concentrates on distinguishing between family-owned and non-family SMEs

regarding strategic planning and the adoption of digital technologies within their growth strategies. Survey variables are used to measure key aspects such as strategic orientation, digital adoption, growth ambitions, and perceived internal barriers to transformation. Statistical techniques are used to assess whether family ownership is linked to a greater likelihood of engaging in forward-looking strategic planning and adopting digital tools in business development strategies. The method also allows for the examination of moderating factors, such as organizational challenges or cultural barriers, that might influence the relationship between family ownership and digital transformation. By analyzing a large cross-country dataset, the study provides a comprehensive empirical view of how SMEs in different institutional and economic environments approach digital transformation, while emphasizing the specific impact of family ownership structures.

c) theoretical base

The research primarily depends on the Socioemotional Wealth (SEW) framework, which has become a fundamental theoretical approach in family business studies. SEW explains the non-financial value that family owners derive from their businesses, including aspects like family control and influence, family members' identification with the company, the preservation of the family legacy, emotional bonds, and the desire to pass the business to future generations. This framework shows that family firms often make strategic decisions not only based on financial factors but also on how those decisions affect their socioemotional assets. As a result, family firms might behave in unique ways, such as focusing more on the long term, emphasizing sustainability and continuity, and taking a cautious stance toward changes that could threaten family control or identity. Within the scope of digital transformation, SEW can serve a dual purpose. On one hand, the desire to protect family legacy and maintain transgenerational continuity might motivate family businesses to adopt innovations that enhance long-term competitiveness. On the other hand, the desire to safeguard socioemotional wealth could lead to risk aversion or resistance to change, potentially hindering the adoption of

disruptive technologies. Applying the SEW perspective to digital transformation strategies in SMEs, this study bridgestwo important research areas: family business studies and digital transformation research.

d) results or expected results

Preliminary results indicate that family-owned SMEs typically have a stronger long-term strategic focus than their non-family counterparts. This outlook appears to encourage more deliberate strategic planning and a greater emphasis on sustainable growth. The findings also suggest that when growth and expansion are regarded as key strategic objectives, family firms are more likely to adopt digital technologies in their development plans. Digital tools are typically seen as ways to enhance efficiency, increase competitiveness, and secure the long-term survival of the business across generations. However, the results also reveal several internal challenges that could slow down or limit the scope of digital transformation in family firms. These challenges include organizational inertia, cultural resistance to change, and tensions related to intergenerational leadership transitions. In some cases, sticking to existing routines and family control structures may reduce the willingness to implement radical technological changes. Overall, the evidence shows that while family firms recognize the strategic importance of digitalization, the transformation process is affected by the complex interplay of growth goals, family values, and organizational dynamics.

e) originality/value

This study contributes to the literature in several ways. First, it provides new empirical evidence on the relationship between family ownership and digital transformation strategies in SMEs, a topic that remains relatively underexplored despite the economic importance of family businesses. Second, by applying the Socioemotional Wealth perspective to the analysis of digital transformation, the research offers a new theoretical framework for understanding why family firms might adopt technological change differently from non-family organizations. Third, using a large, cross-country dataset enables the study to identify wider behavior patterns among European SMEs, offering insights that go beyond individual case studies or single-country analyses. Together, these contributions improve the understanding of how ownership structure influences strategic decision-making in the digital age.

f) practical implications

The findings have significant implications for policymakers, business advisors, and SME managers. For policymakers, the results suggest that initiatives focused on fostering digital transformation among SMEs should consider the unique traits of family firms, including their governance systems and long-term strategic goals. Support programs may need to tackle cultural and organizational obstacles to adopting new technologies, especially those related to family dynamics and leadership succession. For practitioners and family business leaders, the study emphasizes the importance of aligning digital transformation strategies with long-term family goals. Creating a shared vision among family members and future generations can help reduce resistance to change and



support the adoption of new technologies. Finally, consultants and support organizations working with SMEs should understand that digital transformation in family firms is not just a technological challenge but also a strategic and cultural shift, requiring careful management of organizational change and family involvement.

4.34 Generative AI, Deepfakes and Digital Literacy - Educational Strategies on Digital Content Literacy for Democratic Sustainability and Resilience

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Author keywords: Generative Artificial Intelligence, Deep Fakes, Hybrid Threats, Liar's Dividend, Education

Abstract:

The rapid expansion and widespread availability of Generative AI (GenAI) tools has significantly impacted digital democratic engagement and citizenship in pos-COVID-19 societies in a twofold way: on the one hand, the integration and user friendliness of these tools allow for an enhancement of citizen-level political engagement, mobilization and decision-making processes including personalized search, interpretation and synthesis of multiple information sources and foresight, on the other hand, these tools may bias political decisions and stances and be used for disinformation maneuvers and to undermine the public trust in democratic institutions and processes, posing a significant threat to democratic sustainability and resilience.

The use of GenAI and, in particular, large language models (LLMs) integrated as chatbots in social media platforms, search engines and used regularly as decision making tools by users can significantly amplify echo chambers and make citizens vulnerable to digital manipulation amplifying the impact of hybrid threats in the digital environment in a complex dynamical landscape that includes both state and non-state actors.

The widespread dispersion of deepfakes and the increasing sophistication of the technological ability of GenAI to produce deepfake text, video and audio poses a significant threat to democratic societies having led to the "liar's dividend" phenomenon identified by Chesney and Citron, in which those that generate fake contents are benefited by the increased difficulty of citizens in distinguishing between true and false contents in such a way that there is an erosion of trust with people tending to adhere to fake narratives rather than the truth, reducing accountability, making cyber-psychological maneuvers more effective and eroding democratic societies by fostering divisiveness and mistrust in democratic institutions.

While GenAI leads to this amplification of hybrid threats to democracies it also provides the ability for users to factcheck information with deepfake detection methods being

incorporated into these tools. In this way, the responsible use of GenAI and education focusing on digital content literacy is a fundamental effort necessary for the promotion of sustainable and resilient democracy in the new digital data-rich environment.

The current work reviews the main concepts of hybrid threats, GenAI, deepfakes and current programs and best practices under research, including the reflections underway at The European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE) and NATO on this problem.

The “liar’s dividend” phenomenon is then addressed in detail in terms of its implication for democratic participation, sustainability and resilience. After providing for a conceptual framework and reviewing major strategic directions and programs around this subject, the concept of digital content literacy is addressed as a critical part of an overall strategy for fostering democratic sustainability and resilience in regards to responsible GenAI use and for the dangers of misuse of these tools.

The work then addresses educational strategies on digital content literacy for democratic sustainability and resilience as a part of public efforts on education and citizenship in post-COVID-19 societies in a two-tier structure. The first tier that we address is focused on programs and initiatives aimed at policymakers on hybrid threats associated with GenAI and possible integrated responses, the second tier is focused on citizen education programs and initiatives aimed at fostering “GenAI literacy” and “digital content literacy” for democratic engagement, sustainability and resilience.



4.35 Governance and Ethics in Portuguese Municipal Administration: Institutional Challenges and Pathways to Public Integrity

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Author keywords: Municipal governance, Ethics, Accountability, Public administration, Organizational learning

Abstract:

Governance and ethics have become central concerns in contemporary public administration, particularly at the local level, where the proximity between public officials and citizens intensifies both opportunities for democratic innovation and ethical risks. Recent public management literature highlights municipalities as critical arenas for examining governance arrangements, accountability mechanisms, and public integrity. In the Portuguese context, characterized by ongoing decentralization processes, increasing policy complexity, and heightened public scrutiny, the relationship between municipal governance and ethics warrants systematic analysis. This article provides an analytical examination of governance and ethics in Portuguese municipal administration, drawing on recent international literature and the institutional specificities of local government in Portugal. It explores how different forms of governance, hierarchical, network-based, and collaborative, interact with ethical frameworks, accountability mechanisms, and organizational culture at the municipal level. The analysis highlights key ethical challenges, including conflicts of interest, discretion in urban planning and procurement, and the management of public–private and inter-municipal collaborations. The article argues that, while formal regulatory frameworks and control mechanisms are necessary, they are insufficient to ensure ethical governance in practice. Effective municipal integrity depends on the alignment of formal rules with ethical leadership, transparency, citizen participation, and organizational learning. This study contributes to the public administration literature by linking governance and ethics in a local government context and by offering analytically grounded insights into the conditions under which ethical governance can enhance public trust and institutional performance.

4.36 How Geography and Economics Shape University ESG Scores

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Author keywords: University ESG Scores**,** Higher Education Sustainability**,** Macroeconomic Classification**,** Geographical Drivers**,** Environmental Research Indicator

Abstract:

a) purpose

This study aims to analyze the sustainability scores of universities worldwide by examining their environmental, social, and governance (ESG) impacts. Specifically, it investigates how macroeconomic contexts and geographical drivers shape institutional commitment to sustainability across three core dimensions: Environmental Education, Environmental Research, and Environmental Sustainability.

b) design/methodology/approach

Employing a dual-objective statistical methodology, this paper categorizes a global sample of countries using the International Monetary Fund (IMF) classification system, distinguishing between advanced, emerging, and low-income developing economies. This approach allows for a precise analysis of how an institution's economic status and regional location influence its ESG performance.

c) theoretical base

The research is grounded in the integration of macroeconomic development theories and institutional sustainability frameworks. By leveraging the IMF's economic classification alongside global ESG (Environmental, Social, and Governance) metrics, the study establishes a theoretical link between a nation's economic positioning and the strategic sustainability priorities of its higher education institutions.

d) results or expected results

The findings reveal that the Environmental Research indicator reaches the optimal range of "good relative ESG performance and transparency" in many emerging market economies. Furthermore, the analysis highlights Spanish universities as a noteworthy reference point, exhibiting the widest variation and dispersion of scores specifically within the Governance and Environmental Research domains.

e) originality/value

To the best of our knowledge, this constitutes the premier research to conduct a global assessment of higher education sustainability through the lens of ESG scores. It provides

a novel, standardized benchmark that bridges the gap between macroeconomic classifications and institutional ESG performance worldwide.

f) practical implications

The insights generated from this study offer a valuable benchmarking tool for university administrators, policymakers, and international ranking bodies to evaluate institutional sustainability within specific economic contexts. Additionally, the unique performance patterns identified—such as those in emerging markets and Spanish universities—can guide targeted funding, resource allocation, and strategic governance reforms in higher education

4.37 How the Horizontal and Vertical Individualism and Collectivism Influence Maximizer/Satisficer Decision-Making, Entrepreneurial and Social Entrepreneurial Intentions in Portugal: Study 4

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Abstract:

This research interest came about as a natural extension of a series of studies conducted from 2021 through 2025. Business students in higher education (some in the workforce, some not) were studied on the basis of their entrepreneurial intentions and types of decision making. Student opinions were reviewed on the background of their national cultural values – more specifically, Horizontal and Vertical Individualism and Collectivism. The 3 studies that were conducted 2021-2024 covered two samples of American students and one sample of Slovenian students. Recommendations were made for enlarging the scope of the student populations and look into the national cultural values of other countries. Students from Portugal were now approached in 2026 about their perceptions and intentions concerning business entrepreneurship, as well as their preferred style of decision-making – maximizing or satisficing. Additionally, this last sample of Portuguese students' overall engagement levels with their business education and jobs were surveyed also.

4.38 Impact of Self-Awareness on Coach Development

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Author keywords: Self-awareness, Coaching, Professional development, Qualitative research, Human resources, Coaching practice

Abstract:

Self-awareness has long been recognised as a central construct in psychology, leadership development, and human behaviour, being commonly associated with emotional regulation, reflective capacity, ethical awareness, and effective interpersonal relationships. In recent years, its relevance has expanded into organisational contexts, particularly within professional development practices such as Coaching. Coaching is widely understood as a structured, collaborative, and goal-oriented developmental process aimed at supporting individuals in achieving personal and professional objectives. While a growing body of literature has examined the effectiveness of Coaching interventions and their outcomes for coachees, considerably less attention has been given to the development of Coaching professionals themselves. This represents a notable gap in the literature, particularly given the central role coaches play in facilitating behavioural change and human development.

Several authors suggest that self-awareness constitutes one of the most fundamental competencies for Coaching professionals, influencing not only their technical performance but also their capacity for ethical judgement, emotional regulation, and relational depth. Coaches are often described as the primary instrument of the Coaching process, with their internal states, beliefs, values, and emotional awareness directly shaping the quality of the coach-coachee relationship. Despite this theoretical recognition, empirical research exploring on how self-awareness contributes to the professional development of coaches remains scarce. Moreover, little is known about how coaches perceive the evolution of their own self-awareness over time and how this influences their professional practice.

Against this backdrop, the present study aims to explore the impact of self-awareness on the development of Coaching professionals. Specifically, it seeks to understand how self-awareness is perceived by coaches as a personal and professional resource, how it is developed throughout their careers, and how it influences their interactions with coachees. By addressing these questions, the study contributes to a deeper understanding of the internal competencies that underpin effective coaching practice.

A qualitative research approach was adopted in order to capture the subjective experiences and perspectives of Coaching professionals. Data were collected through semi-structured interviews with six experienced and certified coaches, selected based

on their professional background, training, and active engagement in coaching practice. The interviews allowed participants to reflect on their professional journeys, their understanding of self-awareness, and its perceived role in their development as coaches. All interviews were transcribed verbatim and analysed using thematic analysis, enabling the identification of recurring patterns, shared meanings, and divergent perspectives.

The findings indicate that self-awareness is widely perceived by participants as a foundational element in both personal and professional development. Coaches described self-awareness as a continuous and evolving process, closely linked to reflection, experience, and supervision. Several participants highlighted that increased self-awareness enhanced their ability to manage emotions, recognise personal biases, and maintain ethical boundaries within the coaching relationship. Furthermore, self-awareness was associated with greater authenticity, presence, and adaptability, allowing coaches to respond more effectively to the unique needs of each coachee.

Another key theme emerging from the data concerns the role of self-awareness in relational dynamics. Participants emphasised that higher levels of self-awareness contributed to deeper and more trusting coach–coachee relationships, facilitating open communication and meaningful dialogue. Coaches reported that being aware of their own internal reactions enabled them to minimise projection, avoid over-identification with clients, and maintain a client-centred focus. This, in turn, was perceived as enhancing the overall effectiveness of the coaching process.

The study also highlights various methods and practices used by coaches to develop self-awareness, including reflective practices, mindfulness, supervision, peer feedback, and continuous professional training. These findings suggest that self-awareness is not a static trait but a competence that can be intentionally cultivated throughout a coach's professional trajectory.

Despite its contributions, the study acknowledges certain limitations. The qualitative nature of the research and the small sample size limit the generalisability of the findings. Additionally, the study focuses primarily on self-awareness, without examining other competencies that may also influence the development of Coaching professionals. Future research could benefit from larger and more diverse samples, longitudinal designs, and the integration of mixed methods approaches.

Overall, this study contributes to the literature by empirically exploring the role of self-awareness in the development of Coaching professionals. It underscores the importance of integrating self-awareness into coach education, supervision, and professional development programmes. By doing so, organisations and training institutions may enhance coaching quality, promote ethical and reflective practice, and ultimately improve outcomes for both coaches and coachees.



4.39 Impact of Socio-Economic Factors on Human Development: A Dynamic Panel Analysis of African Rural and Urban Contexts

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Author keywords: Human Development Index (HDI); Socio-economic Factors; African Economies; Dynamic Panel Analysis; Rural and Urban Development

Abstract:

a) purpose

The study investigates the specific determinants of human development in 39 African countries in the period 2012 to 2024. The central objective is to analyze how socioeconomic factors impact the Human Development Index (HDI), adopting a disaggregated approach that clearly distinguishes between rural and urban contexts, identifying disparities in infrastructure and economic structures

b) design/methodology/approach

The research uses dynamic panel methodologies, specifically the Generalized Method of Moments (GMM), to address problems of endogeneity and heteroscedasticity in the data. Two distinct econometric models (rural and urban) were developed, using data from sources such as the World Bank (WDI), Transparency International, IMF and UNDP

c) theoretical base

The work is based on the "Deterministic Model of Management of the Socioeconomic Development of the Region", which analyzes the interaction between population, employment and energy supply. Additionally, it incorporates the theory of endogenous growth (focused on technical progress) and the "growth hypothesis" related to energy consumption, in addition to discussing the "sand in the wheels" theory in the context of corruption

d) results or expected results

The results reveal that population growth has a positive impact on the HDI in both contexts, suggesting demographic dividends that drive domestic markets. Energy consumption (renewable and fossil) and access to electricity are key drivers of development. In contrast, job availability showed a negative association, possibly due to the precariousness and low wages of the regional labor market. Corruption (CPI) significantly hampers development in rural areas, while technical progress has not been statistically significant, reflecting limitations in the region's technological absorption capacity

e) originality/value

This study represents one of the first attempts to empirically compare the drivers of human development specifically between rural and urban contexts in a large sample of African countries. The originality lies in the use of the HDI as a comprehensive proxy for progress, adjusted to Africa's deep spatial disparities

f) practical implications

The findings suggest that policymakers should prioritize investment in energy infrastructure and universal access to electricity to improve quality of life. In addition, it is crucial to fight corruption in rural areas to ensure an efficient allocation of resources and create employment policies that transcend informality and precariousness

4.40 Innovation financing for SMEs: combining private and public funding

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Author keywords: Innovation financing, SMEs, private and public funding

Abstract:

Financing R&D and innovation became one of the most important issues in the context of intangible assets. This paper approaches the case of SMEs, which, as demonstrated in the last decades play a significant role to foster the innovation process. However, these firms have in general an unfavorable environment characterized not only by a scarcity of financial resources, low investments in R&D, and a lack of skilled labor, but also by a culture that is not conducive to innovation and entrepreneurship. Among all their challenges, the case of financial resources is of the highest relevance. Due to imperfections in the capital market, mainly affecting SMEs, public funding is also much important in this innovation process, and our approach combines both origins of financing in a new framework. Empirically, the cases of Brazil and Portugal will be particularly considered. So, through a methodological approach based on secondary data, the study presents a framework for analysis, identify the main challenges to financing the stages of innovation of SMEs, and propose policy recommendations.

4.41 Knowledge-Based Resilience: A Systematic Review and Multidimensional Framework for Knowledge Management

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Author keywords: knowledge-based resilience, organisational resilience, knowledge management, knowledge domains, knowledge risks

Abstract:

a) purpose Organisational resilience has emerged as a key construct in management and organisation studies, particularly in light of increasing environmental turbulence, demographic change, the coronavirus pandemic and digital transformation. While prior research has substantially advanced the understanding of resilience by focusing on financial slack, structural flexibility, and organisational resources, the role of organisational knowledge as a central antecedent of resilience remains insufficiently conceptualised. Existing studies frequently identify knowledge as an enabling factor, yet rarely differentiate between knowledge domains, modes of knowledge (e.g. tacit versus explicit), or the specific knowledge-related risks that undermine organisational resilience. The purpose of this paper is threefold. First, it aims to systematically review and synthesise the literature on organisational resilience with a particular focus on the role of knowledge and learning processes. Second, building on this synthesis, the paper introduces the concept of knowledge-based resilience. Third, the paper develops a multidimensional framework that operationalises knowledgebased resilience for knowledge management research and practice. Particular attention is paid to small and medium-sized enterprises (SMEs), which are especially vulnerable to knowledge loss due to demographic change, high employee fluctuation, and limited formal knowledge management structures. b) design/methodology/approach The study follows a qualitative, theory-building research design grounded in a systematic literature review. The review uses the Scopus database encompassing keywords relating to organisational resilience, knowledge management, experiential knowledge, knowledge risks, and knowledge-based resilience, in both English and German. Results are screened according to pre-defined inclusion and exclusion criteria aimed at thematic relevance and methodological rigour. The final corpus of literature is analysed to develop a

comprehensive understanding of organisational resilience and identify dominant conceptualisations, theoretical foundations, and empirical patterns regarding the role of knowledge in resilience. Based on the identified fragmentation of existing research and the proposed definition of knowledge-based resilience, a conceptual framework is developed. This framework integrates resilience process models with knowledge management perspectives. Specifically, the fourphase resilience cycle proposed by Kohl et al. (2021) is combined with differentiated knowledge domains (Orth et al. (2008); Kohl et al. (Eds., 2016)) and organisation-specific knowledge risks (Durst & Zieba (2019)). The framework is then iteratively refined to ensure internal coherence, theoretical consistency, and applicability across different organisational contexts. c) theoretical base The theoretical foundation of this paper is primarily rooted in the competency-based conceptualisation of organisational resilience proposed by Duchek (2020). Within this perspective, organisational resilience is defined "as an organisation's ability to anticipate potential threats, to cope effectively with adverse events, and to adapt to changing conditions" (Duchek, 2020). Central to this conceptualization are the organisational knowledge base and the learning processes that enable its continuous development, which are emphasized as key drivers of resilience. Complementing this competency-based view, the paper draws on Kohl's (2021) framework model for resilient value creation (deu: Rahmenmodell für Resiliente Wertschöpfung) which structures resilience along four characteristics along the resilience phases: anticipation, reaction, protection, and regeneration. This cyclical perspective aligns well with knowledge management research, as it highlights the temporal and dynamic nature of knowledge creation, transfer, and retention across organisational processes. By integrating these two theoretical perspectives, the paper establishes a conceptual bridge between organisational resilience theory and knowledge management research. Knowledge is positioned not merely as a static resource, but as an active, processual capability that unfolds across resilience phases and is shaped by organisational structures, cultures, and technologies. d) results or expected results The main result of this study is the development of a multidimensional framework for assessing and designing knowledge-based resilience in organisations. The framework consists of three interrelated dimensions. First, resilience is conceptualised as four characteristics unfolding along the resilience phases: anticipation, reaction, protection, and regeneration. Each characteristic is associated with specific knowledge management challenges and levers along the employee lifecycle, such as ensuring rapid access to relevant knowledge during onboarding, structuring knowledge handovers during role changes, securing critical knowledge before employee exit, and systematically capturing lessons learned to enable organisational renewal. Second, the framework differentiates between key knowledge domains that contribute to organisational resilience. These include knowledge of markets and competitors, customers, products and services, projects, internal organisational structures and processes, partners and networks, regulatory and standards-related knowledge, patents, and subjectand method-specific expertise. The relative importance of these domains varies depending on organisational context and strategy. Third, the framework explicitly incorporates organisation-specific knowledge risks, acknowledging that resilience is a relative rather than absolute construct. Typical



risks include the loss of employees holding critical tacit knowledge, short employee lifecycles due to high turnover, weak knowledge-sharing cultures, and insufficient documentation or digitalisation of experiential knowledge. By mapping knowledge management practices across these three dimensions, organisations can identify phases and domains in which they are particularly resilient or vulnerable. This structured assessment enables a nuanced diagnosis of knowledge-based resilience and supports targeted interventions. e) originality/value This paper makes several original contributions to the literature on organisational resilience and knowledge management. Theoretically, it advances the emerging notion of knowledge-based resilience by systematically synthesising the organisational resilience literature and explicitly linking it to core perspectives in knowledge management. This novel construct of knowledge-based resilience represents an innovative approach to resilience in the age of the knowledge economy and AI. Especially GenAI revolutionizes knowledge handling and unlocks vast potential for organisational knowledge management. The paper contributes to intellectual capital research by positioning organisational knowledge not only as a strategic asset, but as a dynamic resilience capability embedded in organisational processes. The integration of a competency-based resilience perspective with a process-oriented resilience cycle represents a novel theoretical synthesis. Empirically, while the paper itself is conceptual, it lays a solid foundation for future empirical research by providing a clear framework that can be operationalised in field studies. f) practical implications From a practical perspective, the proposed framework offers organisations a structured tool for assessing and strengthening their knowledge-based resilience. It supports managers in identifying critical knowledge domains, diagnosing relevant knowledge risks, and aligning knowledge management practices with different resilience phases. The implications are particularly relevant for SMEs, which often rely heavily on tacit experiential knowledge and are disproportionately affected by demographic change and employee turnover. These insights directly inform the STARK research project, which aims to develop and test a holistic, AIsupported system for securing and transferring experiential knowledge in SMEs. AI-supported tools, such as conversational systems and knowledge assistants, can play a crucial role in capturing, structuring, and transferring experiential knowledge across the employee lifecycle. By operationalising knowledge-based resilience in practical tools and guidelines, the framework contributes to enhancing organisational resilience, safeguarding critical knowledge, and strengthening the long-term competitiveness of SMEs.

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4.42 Knowledge Transfer - Developing Growth Mindsets through Coaching

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Author keywords: coaching, knowledge transfer, individual potential, growth vs fixed mindset, qualitative research

Abstract:

a) purpose

This paper's purpose is to investigate how knowledge transfer might be improved by developing an employee's mindset through coaching. In today's organizations, supervisors and leaders struggle to keep their workforce motivated, engaged, and performing to their full potential. Statistics are bleak. Eighty percent of turnover is due to poor management. Human potential is severely underutilized. Using a growth mindset to help develop potential and contribute to knowledge transfer in organizations is a necessity if organizations want to remain competitive and relevant.

b) design/methodology/approach

The paper presents a conceptual framework linking coaching interventions, growth mindset theory, and knowledge transfer outcomes. It is supported by a small, exploratory qualitative study involving semi-structured interviews with employees who have recently participated in coaching programs. Thematic analysis will be used to explore how mindset-oriented coaching may influence individuals' openness to feedback, willingness to share expertise, and ability to engage in informal learning networks. This hybrid approach grounds the conceptual argument in real-world organizational narratives.

c) theoretical base

The framework integrates Carol Dweck's (2006) Growth Mindset Theory with core concepts from knowledge transfer, particularly Nonaka and Takeuchi's (1995) SECI model of knowledge creation and coaching. Ellinger and Kim (2014) assert that coaching is a pervasive form of development that helps an individual achieve professional and personal goals. The concept continues to gain attention from both practitioners and scholars, serving as both a theoretical and practice-based approach to development.

d) expected results

Based on existing literature in mindset theory, coaching effectiveness, and knowledge transfer, it is hypothesized that coaching interventions aimed at fostering a growth mindset will positively influence employees' willingness to engage in knowledge transfer. Specifically, individuals who develop growth-oriented beliefs may be more likely to seek feedback, share expertise, and participate in collaborative learning behaviors. The proposed study aims to explore these assumptions and generate insights for future empirical testing.

e) originality/value

This paper contributes to both the coaching and knowledge management literatures by proposing a novel, behavior-based intervention for enhancing internal knowledge transfer. It shifts the focus from structural or technological solutions toward developmental, human-centered strategies that target underlying beliefs and motivations.

f) practical implications

The study offers HRD professionals and organizational leaders an actionable model for fostering more collaborative and learning-rich environments. By developing growth mindsets through coaching, organizations may unlock latent knowledge assets, reduce silos, and build cultures of continuous learning and trust.



4.43 Leading in the Algorithmic Globe: A Conceptual Framework of AI Enabled Leadership for Intangible Competitiveness

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Author keywords: AI-enabled leadership; Global competitiveness; Intangible assets; Knowledge-based view; Reputation

Abstract: Purpose

This paper develops a conceptual framework explaining how AI-enabled leadership can strengthen the intangible foundations of organisational competitiveness in a globalized knowledge economy, where knowledge-based resources and dynamic capabilities are decisive for performance. It theorises how leaders mobilise AI to orchestrate knowledge, culture, reputation and relational capital across borders, using AI not only for efficiency but for enhancing learning, trust and innovation. The paper also examines how AI-

enabled leadership can reconcile pressures for speed and scale with responsibilities towards citizenship, inclusion and ethical conduct in globally distributed value chains.

Theoretical Base

The framework integrates the knowledge-based view of the firm and dynamic capabilities theory, conceptualising AI as a lever for building, sensing and reconfiguring knowledge assets and capabilities. It incorporates intellectual capital perspectives to distinguish how AI-driven decisions affect human, structural and relational capital, including reputation and stakeholder trust. Research on global competitiveness, AI strategy and responsible leadership complements these foundations, linking AI capability, governance and ethical practices to competitive advantage in international markets.

Conceptual Model Development

The paper adopts a structured conceptual model development approach, combining an integrative review of AI, leadership, intellectual capital and global competitiveness literatures with abductive reasoning. Concepts are first clustered into four core domains: AI-enabled leadership behaviours, global knowledge flows, intangible assets and competitiveness outcomes, and then linked through theoretically grounded propositions. On this basis, a visual multi-level framework is articulated, mapping how individual leadership practices and organisational routines configure AI use, and how this configuration shapes cross-border knowledge dynamics, reputation and long-term intangible competitiveness.

Data

No primary data are collected; instead, the model is informed by secondary empirical studies on AI capabilities, knowledge-based dynamic capabilities and innovation performance in knowledge-intensive firms. It also draws on global AI competitiveness indices, reputation analytics and international reports highlighting the role of intangible investment, particularly AI and data, in competitive advantage. These sources are used as illustrative vignettes to ground propositions regarding when AI-enabled leadership strengthens versus undermines intangible competitiveness.

Conclusions

The paper concludes that organisations achieve sustainable global competitiveness when leaders combine AI capabilities with stewardship of trust, learning and ethical norms, treating AI ethics and governance as strategic assets. AI-enabled leadership that invests in reputation, stakeholder relationships and transparent decision-making can convert data-driven insights into durable intangible value. By contrast, technocentric deployments of AI that neglect inclusivity, accountability and legitimacy may yield short-term gains while eroding reputation, social licence and long-term competitive position.

Implications and Limitations



The framework offers executives, policy-makers and scholars a conceptual tool for diagnosing and designing AI-enabled competitive strategies that foreground intangibles, knowledge governance and responsible leadership. It suggests actionable priorities, such as aligning AI investments with intellectual capital development, reputation management and robust ethical governance across global operations. Limitations arise from the conceptual nature of the contribution, potential bias in existing empirical studies and the need for multi-country, longitudinal research to test and refine the proposed relationships in diverse institutional environments



4.44 Leading the Sustainable Hybrid: A Conceptual Framework of Leadership, AI and Intangible Conditions for Sustainable Digital Work

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Author keywords: Sustainable work; Hybrid work; AI and work design; Leadership; Well-being

Abstract:

Purpose This paper proposes a conceptual framework on leadership for sustainable hybrid work in AI-intensive, digitalised organisations, where work is increasingly distributed, data-driven and constantly mediated by technology. The purpose is to explain how leaders can configure work, technology and culture so that hybrid and digital models remain sustainable in terms of health, equity, learning and citizenship,

rather than degenerating into digital fatigue, productivity paranoia and over-surveillance. The paper responds to emerging debates on AI in the workplace and algorithmic management by situating leadership at the centre of decisions about flexibility, monitoring, autonomy and social connection in hybrid work. Theoretical Base The framework draws on sustainable work and job design theories, as well as digital and hybrid work research, to conceptualise hybrid work as a configuration of demands and resources that can support or undermine well-being and engagement. It integrates leadership and occupational health psychology literatures, highlighting how leadership styles and behaviours buffer or exacerbate digital fatigue and shape norms for boundary management, recovery and social support. Perspectives on AI, algorithmic management and decent work are incorporated to theorise how technology and leadership jointly shape intangible conditions of sustainable work, such as trust, inclusion, perceived justice and meaningful participation in decisions about data and monitoring. Methodology A conceptual, theory-synthesising methodology is applied, integrating dispersed findings from research and practice into a coherent set of dimensions relevant for sustainable AI-supported hybrid work: workload, autonomy, connectivity, surveillance, learning and community. The paper develops a framework that links leadership practices (e.g. boundary-setting, modelling sustainable digital habits, inclusive decision-making) with AI-supported coordination and monitoring systems and their consequences for well-being, engagement and long-term employability. The model is articulated at multiple levels, individual, team and organizational, to capture how leadership and AI shape not only individual experiences but also digital culture and the relational fabric of hybrid organisations. Data The model is informed by secondary data from studies and reports on remote and hybrid work, digital fatigue and work engagement, as well as AI-mediated monitoring and sustainable work policies after Covid-19. Evidence on AI-enabled workplace technologies, well-being analytics and hybrid workplace platforms informs the operationalisation of key dimensions such as connectivity, monitoring intensity and support for work–life balance. These studies and policy analyses are synthesised to derive propositions about how leadership can mitigate risks, such as burnout, anxiety and perceived loss of autonomy, and amplify the benefits of AI-supported hybrid work in terms of flexibility, inclusion and learning. Conclusions The paper concludes that sustainable hybrid work depends on leadership that deliberately balances flexibility, connectivity and boundaries, rather than assuming that technology alone will optimise work. Leaders who critically interrogate AI-mediated monitoring and performance metrics, and who design participatory, transparent governance of these systems, can use AI to support well-being, fairness and employability, instead of merely intensifying control. Absent such leadership, hybrid work risks becoming unsustainable, with negative effects on health, motivation and the intangible social fabric of organisations, including trust, cohesion and perceived organisational support. Implications and Limitations The framework offers leaders, HR professionals and policy-makers a conceptual guide for designing AI-supported hybrid work arrangements that are both productive and sustainable, aligning technology choices with principles of decent work and human-centred design. It suggests practical levers such as digital workload and fatigue monitoring with safeguards, co-created



hybrid work norms, algorithmic impact assessments on working conditions and leadership development focused on sustainable, boundary-conscious digital practices. Limitations include its conceptual status, reliance on existing empirical evidence and the need for empirical validation across sectors, occupations and national institutional contexts, particularly in relation to diverse regulatory regimes and cultural expectations about flexibility, surveillance and citizenship at work.



4.45 Logistics in the Era of Artificial Intelligence

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Author keywords: Logistics, Supply Chain Management, Artificial Intelligence, Sustainability

Abstract:

Artificial Intelligence (AI) is one of the most promising technological advancements, but also one of the most ambivalently discussed topics these days. AI has surpassed humans at a number of tasks already. It continues in doing so at new tasks in an increasing rate. This way AI strongly impacts individuals, society, and businesses. Logistics is an economic sector that acts globally in supply chains of growing complexity. It has a strong impact on how companies and even economies can be run successfully, but it is also impacting the world's ecology and climate change. In order to cope with these various (and partially contradictory) challenges for a more sustainable world, logistics and supply chain management have high expectations on significant benefits from latest AI advancements. In software-supported logistics activities AI implementation has been standard for years already, whereas the wide appearance of Large Language Models and generative AI opened new fields for AI integration to improve efficiency, reliability, and sustainability of logistics processes and supply chain operation.

The paper focusses on the chances and challenges coming with the highly dynamic evolution of AI within a very dynamic and largely impacted business sector which is a kind of backbone for the world's sustainablity in all dimensions (politics, prosperity, planet, people). It contributes to discussions about how to cope with them particularly under today's high level of uncertainty in many aspects.

4.46 Managing Personal Intellectual Capital for Professional Excellence: The Artificial Intelligence Contribution

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Author keywords: Personal Intellectual Capital; Knowledge Management; Artificial Intelligence; Self-Management

Abstract:

a) purpose

In the knowledge economy, value creation increasingly depends not only on organisational capabilities, but also on individuals' capacity to strategically manage their own knowledge, competencies, experience, cognitive resources, and professional trajectories. While traditional Intellectual Capital (IC) and Knowledge Management research has predominantly focused on organisations, firms, and institutional systems, contemporary knowledge societies require a shift towards the individual as a strategic unit of value creation. Building on prior research on self-management, innovation, and self-directed learning, this paper advances such a shift and positions Personal Intellectual Capital (PIC) as a core driver of professional excellence and sustainable personal value creation in AIdriven knowledge environments. The aim of this study is to develop a conceptual framework of Personal Intellectual Capital as a strategic human capability. The framework explains how individuals can actively design, govern, and leverage their own intellectual resources — including knowledge, competencies, experience, cognitive capabilities, and professional networks — through self-directed learning, decision-making, and professional self-management. In this sense, Personal Intellectual Capital is conceptualised as the human-level equivalent of a business model, that is, as the logic through which individuals create, develop, and capture knowledge-based value across dynamic and boundaryless professional trajectories.

b) design/methodology/approach

The study adopts a conceptual and integrative research design, based on a systematic synthesis of multidisciplinary academic literature and theory-building principles. Rather than relying on primary empirical data, the paper follows a conceptual development strategy aimed at constructing a coherent and theoretically grounded framework of Personal Intellectual Capital. The methodological approach integrates contributions from Intellectual Capital, Knowledge Management, human capital theory, personal knowledge management, self-directed learning, and knowledge ecosystem perspectives. Through conceptual mapping and theoretical synthesis, the study identifies the core dimensions of PIC and articulates their functional relationships within a comprehensive framework. The research logic follows established principles of conceptual inquiry in



management and social sciences, emphasising construct clarity, internal coherence, and theoretical relevance. The resulting framework is intended to provide a foundation for future empirical research and measurement initiatives.

c) theoretical base

The theoretical foundation of this study builds on classical and contemporary theories of Intellectual Capital, which conceptualise IC as the knowledge-based equity of organisations and a key driver of performance. In particular, the paper draws on the standard three-dimensional IC model, consisting of human capital, structural capital, and relational capital, widely adopted in the literature to explain how intangible resources generate sustainable value. While this triadic model has been predominantly applied at the organizational level, this paper extends its logic to the individual domain, proposing Personal Intellectual Capital as an individual-level configuration of human, structural, and relational intellectual resources. Human PIC refers to individual competencies, experience, cognitive resources, and reflexivity; structural PIC encompasses personal knowledge systems, learning routines, digital tools, and cognitive infrastructures; and relational PIC includes professional networks, communities of practice, and social capital embedded in knowledge ecosystems. This organisational-to-individual transposition is further informed by human capital theory, self-directed learning, and personal knowledge management, which highlight the active role of individuals in designing and regulating their own learning processes. Additionally, knowledge ecosystem theory provides a systemic perspective on how individuals interact with multiple actors, platforms, and technologies across complex socio-technical environments. Emerging research on digitalisation and artificial intelligence constitutes a central component of the theoretical base. In this regard, the study adopts a human-centred AI perspective, conceptualising AI as a cognitive and organisational extension of human capabilities rather than as a substitute for human intelligence.

d) results or expected results

The main result of the study is the development of a conceptual framework of Personal Intellectual Capital that identifies its core dimensions and functional mechanisms. The framework conceptualises individuals as micro-organisations of knowledge, responsible for the continuous design, governance, and optimization of their own intellectual resources across complex and dynamic professional environments. A key expected result is the reconceptualisation of Artificial Intelligence as a structural enabler of PIC. Rather than framing AI as a disruptive force that replaces human expertise, the framework positions AI as an augmentation layer that supports individual sensemaking, metacognition, learning, and professional decision-making. In this view, AI strengthens professional autonomy, agency, and reflexivity, enabling individuals to navigate uncertainty, complexity, and continuous transformation more effectively.

e) originality/value

The originality of this paper lies in its explicit shift of the unit of analysis from organisations to individuals within Intellectual Capital research. While most existing

studies focus on IC stocks and management mechanisms at the firm level, this work contributes a novel conceptualisation of Personal Intellectual Capital as a strategic human capability. Furthermore, the integration of Artificial Intelligence into the PIC framework adds significant theoretical value by reframing AI as a human-centred resource embedded within individual knowledge architectures. By combining IC theory, self-management, and ethical AI principles, the paper contributes a new perspective on how value creation, professional excellence, and intellectual capital can be understood in contemporary AI-mediated knowledge economies. In this sense, the study positions Personal Intellectual Capital as the microfoundation of knowledge-based value creation in the twenty-first century.

f) practical implications

From a practical perspective, the framework offers guidance for professionals, entrepreneurs, freelancers, and knowledge workers on how to actively manage their own intellectual capital in AI-driven environments. It highlights the importance of developing self-management skills, personal knowledge management practices, and reflective learning strategies as core components of professional excellence. The framework also has implications for education and training systems, suggesting the need to foster competencies related to autonomy, lifelong learning, digital literacy, and cognitive self-regulation. Additionally, it supports organisations and policy-makers in designing human-centred AI strategies that enhance individual empowerment, professional resilience, and sustainable personal value creation, rather than merely optimising organisational efficiency.



4.47 Measuring Eco-Innovation Efficiency Across OECD Countries Using Data Envelopment Analysis

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Author keywords: ecoinnovation**,** DEA**,** output

Abstract:

Purpose:

This study examines the eco-innovation performance of countries belonging to the European Union. As businesses increasingly adopt eco-innovation practices to enhance eco-efficiency and sustainability, evaluating national performance becomes essential for informed policy and strategic decision-making.

Methods:

The study employs Data Envelopment Analysis (DEA) to measure the relative eco-innovation efficiency of European countries. Changing economic conditions have challenged many financial institutions and banks to search for more efficient ways to assess their operations. Non-parametric frontier analysis was first introduced by Farrell (1957) and later developed into Data Envelopment Analysis (DEA) by Charnes, Cooper, and Rhodes (1978) as a linear programming based technique for efficiency assessment. DEA is a powerful mathematical method for determining the relative efficiency of a set of functionally similar Decision Making Units (DMUs) (e.g., banks, brokerage firms, and insurance companies) that use multiple inputs to produce multiple outputs. AAn output-oriented CCR (Charnes, Cooper, and Rhodes) model is applied, given the greater strategic importance of maximizing desirable outputs in environmental and innovation performance assessment. Data were obtained from the Ecoinnovation laboratory database and the Global Innovation Index report. Selected inputs and outputs reflect energy use, ecological sustainability, and innovation-related indicators. Data envelopment analysis (DEA) is a mathematical programming model used to evaluate the relative efficiency of homogeneous decision-making units (DMUs) consuming similar inputs to producing similar outputs. Since the classical DEA models are applied separately for each DMU to maximize its efficiency, the weight of the same factor (input/output) may vary from one DMU to another.

Results:

The findings indicate considerable variation in eco-innovation efficiency across EU countries. For most countries, energy use efficiency and ecological sustainability indicators emerge as the most influential determinants in improving eco-innovation

performance. Countries that better manage energy consumption while strengthening ecological sustainability tend to achieve higher relative efficiency scores.

Conclusions:

The results highlight the critical role of sustainable energy management and ecological performance in enhancing national eco-innovation outcomes. Policymakers should prioritize energy efficiency and sustainability-oriented innovation strategies to improve eco-innovation performance and support long-term sustainable development objectives. indingsshow that Germany are eco-innovative therefore other EU countries must benchmark these ones to improve their own eco-innovation. This paper focused on outputs. Future studies can be devoted to input-oriented DEA models to evaluate eco-innovation of countries.

4.48 Mind the Gap: Exploring AI Expectations of Librarians and Patrons at the University of Malta in the Gen-AI Era

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Author keywords: Academic Libraries, Generative AI (or GenAI), User Expectations, Gap Analysis, Service Alignment

Abstract:

a) Purpose

The emergence of Generative Artificial Intelligence (GenAI) in late 2022 precipitated a "new academic reality," fundamentally altering information behaviors in higher education. While the COVID-19 pandemic accelerated the shift toward remote digital services, the "GenAI Era" challenges the core function of the academic library: the mediation of information discovery and verification.

Current discourse within Library and Information Science (LIS) often treats librarian readiness and student adoption as separate phenomena. However, anecdotal evidence and emerging literature suggest a growing disconnect, an "Expectation Gap", between the services libraries are preparing to offer (often focused on backend infrastructure and copyright governance) and the services students actually require (often focused on workflow efficiency, citation assistance, and grade preservation).

The primary purpose of this research is to bridge this provider-only perspective by quantifying the divergence between Library Professionals (Providers) and Library Patrons (Users) at the University of Malta (UML). By juxtaposing professional assumptions against user realities, the study aims to: Identify the specific areas where student usage of AI outpaces staff awareness (The Usage Gap). Determine if the service interventions proposed by staff align with the immediate "pain points" of the student body (The Service Gap). Propose a "Service Alignment Model" to help the UML prioritize AI initiatives that yield the highest value to the user community, moving beyond reactive policy-making toward proactive, user-centered service design.

b) Design/methodology/approach

To operationalize the comparison between providers and users, this study employs a quantitative, cross-sectional, dual-perspective research design. Rather than relying on

disparate datasets collected at different times, this research utilizes a "mirrored" survey methodology to capture concurrent viewpoints. Two structured questionnaires will be distributed simultaneously over a four-week period. Cohort A (Providers): Targeted at UML staff members, measuring their readiness, willingness to train, and perceptions of student behavior. Cohort B (Users): Targeted at registered UM patrons (Undergraduate and Postgraduate, academics and admin staff), measuring their actual usage patterns, service expectations, and ethical priorities. The instruments are designed with identical underlying constructs to allow for direct Paired Gap Analysis. Key measurement areas include:

Usage Constructs: Comparing staff estimates of AI adoption against patron self-reported frequency, specifically probing for "concealment behaviors" (hiding AI use due to fear of penalization) and "discovery substitution" (using LLMs instead of the library catalog).

Service Constructs: Mapping patrons' demands to "Intelligent Library" roles (e.g., AI literacy workshops, verification clinics) and comparing this demand against staff willingness to provide these specific services.

Ethical Constructs: Ranking ethical concerns to measure the divergence between provider priorities (Privacy/Governance) and user priorities (Grades/Accuracy).

c) Theoretical base

This research is theoretically grounded in Customer Knowledge Management (CKM) and Service Quality (Gap Analysis) Theory.

CKM logic argues that in dynamic information environments, service innovation must be driven by the systematic collection of external user knowledge rather than internal process optimization. In the context of the "Intelligent Library", libraries risk obsolescence if they optimize for traditional workflows (e.g., OPAC searching) while users migrate to novel workflows (e.g., conversational search via ChatGPT).

Furthermore, the study draws on the Service Quality Gap Model, specifically the "Knowledge Gap", the difference between what service providers believe customers expect and what customers actually expect. By quantifying this gap, the research moves beyond abstract discussions of "AI readiness" to a concrete measurement of "Service Alignment." This framework is particularly relevant in the post-pandemic context, where user expectations for seamless, remote, and "smart" services have intensified.

d) Expected results

As the survey is forthcoming, results are hypothesized based on the synthesis of preliminary staff data gathered in 2025 and broader global literature on student AI adoption. We anticipate three primary divergence patterns:

The Usage Gap (Underestimation of Shadow Use): It is expected that patron self-reported usage will significantly exceed staff estimates, particularly regarding "shadow" tasks. We hypothesize that a significant portion of patrons are already using AI for discovery and synthesis, bypassing the library catalog, while staff may perceive AI usage



as limited to "brainstorming." We also anticipate high rates of "concealment," where patrons use AI but hide it due to lack of clear policy, a behavior likely invisible to staff.

The Service Gap (Misalignment of Support): We expect to find that staff are "over-investing" in theoretical readiness (e.g., willingness to learn about backend AI tools) while "under-serving" immediate practical needs. Specifically, we hypothesize high patron demand for "Verification Clinics" (help checking if AI citations are real) and "Prompt Engineering for Research," which may not currently be on the library's training roadmap.

The Ethical Gap (Priority Divergence): We anticipate a sharp divergence in ethical orientation. Staff are expected to prioritize Data Privacy and Copyright (Governance concerns), consistent with professional library ethics. In contrast, patrons are expected to prioritize Accuracy (Hallucination risks) and Grade Validity (Outcome concerns). This gap suggests that current library warnings about "privacy" may be ignored by patrons who are more worried about "getting the answer right."

e) Originality/value The originality of this research lies in its relational approach. While existing studies often examine librarian attitudes or student adoption in isolation, this study treats them as a single service ecosystem. By using a mirrored methodology, it provides empirical evidence of the relationship between provider assumptions and user realities.

Furthermore, the research offers high value to the specific context of the University of Malta. As a small island state university, the UML faces unique challenges regarding Melitensia (local heritage content). Global AI models often "hallucinate" or fail when dealing with low-resource languages like Maltese. This study will be the first to assess if students are aware of these local biases, or if they are blindly trusting global AI tools for local research, a finding that would redefine the library's role as the "guardian of local truth."

f) Practical implications

The primary practical output of this research will be a Service Alignment Model (SAM) for the UML. This framework will move the library from a reactive stance to a proactive strategy by:

Re-prioritizing Training: Shifting staff development from general "AI Awareness" to specific competencies that patrons crave, such as "AI Citation Verification."

Policy Communication: Moving from prohibitive policies (bans) to "enablement policies" that address patrons fears of accidental plagiarism.

Strategic Positioning: Validating the library's new value proposition not as a "search engine competitor" (competing on speed) but as a "human-in-the-loop verifier" (competing on trust).



Ultimately, the study argues that closing the "Expectation Gap" is not just about adopting new technology; it is about ensuring the library remains relevant in the cognitive workflow of the modern student.

4.49 Navigating the Paradox: Artificial Intelligence, Humanization and the Challenge of Decision-Making in an Increasingly Complex Society

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Author keywords: Paradox, Artificial Intelligence, Humanization, Decision-Making, Complexity, Society

Abstract:

The growing integration of artificial intelligence into organizational decision-making processes presents a central paradox for management. While AI-based analytical tools expand the capacity to process information and support decisions, they may simultaneously erode the human dimensions. This project proposes to investigate the extent to which management professionals perceive the preservation of their human capacities when artificial intelligence supports organizational decision-making.

The research will be structured around three sequential studies using mixed methods. The first qualitative study conducts an analytical and systematic literature review following the PRISMA protocol, mapping the state of the art on humanization of work, human-AI collaboration, and organizational decision-making. The second study, qualitative in nature, adapts the Healthcare Professional Humanization Scale (HUMAS) from Perez-Fuentes et al. (2029) to the management AI context. A focus group with management professionals and specialists who use AI tools in a structured capacity evaluates the relevance, clarity and representativeness of scale items to an adapted instrument. The third study (qualitative) will psychometrically validate the instrument with a sample of management professionals through confirmatory analysis, internal consistency assessment, and convergent and discriminant validity testing.

Some limitations will likely arise. Adapting the HUMAS model from a clinical to an organizational context requires confirmation. The sample, focused on management professionals and academic specialists, could limit the generalizability of the results. However, this research will contribute to articulating the AI paradox with the dimensions of humanizing managerial work. Methodologically, it provides a new validated instrument to measure perceptions of humanization in AI-mediated organizational contexts. Empirically, it identifies which human capabilities managers perceive as being most preserved or eroded in collaboration with the AI system

4.50 Neural Architecting in the Digital Era: A Neuro-AI Framework for Sustainable Leadership and Organizational Flourishing

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Author keywords: Positive Organizational Psychology, Psychological Capital (PsyCap), Neuro-AI, Human-Centered AI, Strategic Leadership, Design Science Research.

Abstract:

In an organizational climate defined by "permacity"—constant technological acceleration and rising cognitive load— traditional leadership development models often fail to produce sustainable behavioral change. This article introduces the Positive YOUNITY® - Neuro-AI Changing Model® (v4.0), an integrative framework designed to enhance leadership efficacy through the synergy of Applied Neuroscience, Positive Organizational Psychology (POP), and Human-Centered AI (HCAI). The model is operationalized via a seven-module matrix (Y-O-U-N-I-T-Y) that leverages AI-driven "cognitive artifacts" to support experience-dependent neuroplasticity and build Psychological Capital (PsyCap). Utilizing a Design Science Research (DSR) approach, we propose a validation framework to measure the model's impact on leader resilience and team flourishing. Preliminary evidence suggests that AI-mediated interventions can reduce psychological distress (Hedges'g = 0.61) and increase workplace satisfaction by over 30% (McKinsey & Company, 2023; medRxiv, 2025). However, we argue that the strategic value of "Neuro-AI" lies not in automation, but in fostering "superagency"—a state where leaders utilize AI to augment critical thinking and emotional intelligence while mitigating the risk of "cognitive debt" (The Transmitter, 2025).

4.51 Orchestrating Hybrid Local Ecosystems through Value-in-Use: A LivePBL Model from China Based on Mixed Action Research and Social Community Practice

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Author keywords: Hybrid local ecosystems, Value-in-use, Ecosystem orchestration, Organizational learning, Social community practice

Abstract:

a) purpose As digital transformation increasingly unfolds across localised yet interconnected ecosystems linking businesses and local social communities, value creation extends beyond firm-level or platform-efficiency–driven innovation (Qiu et al, 2023; Peng et al, 2024). Instead, this chapter argues and demonstrates that value-in-use emerges through ongoing interaction among businesses, social communities, educational institutions, and intermediary actors embedded in specific local contexts. The business offerings in terms of value-in-use at a local community level rarely emerged within hierarchical governance, or what Autio (2022) and Shen et al. (2024) conceptualised as "ecosystem orchestration". That is a hybrid leadership approach that enables coordination among ecosystem participants. However, despite growing interest in ecosystem orchestration, existing research remains fragmented and offers limited insight into comprehensive orchestration practices. The LivePBL model is developed and tested on such dynamics across contexts, including heterogeneous actors learning to coordinate, adapt, and co-create value in practice—particularly in settings where economic activity is deeply intertwined with community life. This paper addresses these gaps by exploring how hybrid local ecosystems can be orchestrated through learning-centred practices. b) design/methodology/approach The model adopts a research methodology that combines • Action research in business eco-systems and organisational learning (Priyono and Hidayat, 2024) with • Social community practice grounded in Project-Based Learning (PBL) pedagogy from educational science (Liu et al, 2025). Empirical evidence is drawn from LivePBL projects conducted in China, involving

small and medium-sized enterprises, cultural and creative industries, family- and community-based organisations, higher education institutions, and digitally mediated platforms. Data sources include participatory observation, iterative project cycles, stakeholder interviews, reflective learning artefacts, and practice-based evaluations. Action research enables real-time intervention and organisational learning, while PBL provides a structured yet flexible practice environment through which participants jointly frame problems, experiment with solutions, and reflect on value creation in use. c) theoretical base The paper is theoretically grounded in value-in-use, ecosystem orchestration, and organisational learning theories. It conceptualises hybrid local ecosystems as socioeconomic configurations where organisational co-learning to construct market mechanisms, community relationships, and institutional learning intersect. Rather than treating the learning as an outcome of ecosystem participation, the study positions learning-in-practice as a governance mechanism that enables coordination, alignment, and adaptive orchestration over time. The LivePBL model can be applied as a practice infrastructure that operationalises these principles by embedding learning, negotiation, and value realisation within shared projects. d) results or expected results The findings indicate that value-in-use within hybrid local ecosystems is generated through sustained engagement in shared practices rather than through isolated technological adoption or top-down coordination. LivePBL facilitates the alignment of diverse actor interests, reduces coordination friction, and supports adaptive role formation across business and community boundaries. The results demonstrate how social community practice, when combined with action research, enables ecosystem participants to continuously translate strategic intent into locally meaningful and economically viable outcomes. Although empirically grounded in China, the identified orchestration logics show strong potential for transfer to other local and regional contexts. e) originality/value This study contributes to knowledge economy research by advancing learning-based ecosystem orchestration as a central mechanism for value-in-use creation in hybrid local ecosystems. Methodologically, it offers a novel integration of action research and project-based social community practice, addressing the gap between managerial research and situated learning. Empirically, it provides a rare, multi-cycle project provisions of how business, community, and educational actors co-create value through shared practice infrastructures. f) practical implications For practitioners, the chapter offers an innovative model or framework for orchestrating local ecosystems that balances economic objectives with social and community engagement. For policymakers and educators, it demonstrates how project-based social practice can serve as an enabling infrastructure for inclusive and sustainable local development. The LivePBL model provides a practical pathway for embedding learning, adaptability, and value-in-use within ecosystem-level transformation initiatives.

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4.52 Organizational learning as a strategic resource driver in school management

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Author keywords: organizational learning**,** school governance**,** learning organizations**,** teacher empowerment

Abstract:

Purpose

This research aims to analyse and understand the interrelationship between individual learning and organizational learning in the context of school governance. Considering that learning processes are a structuring element of successful school management and administration, the study seeks to explore how organizational learning is linked to the empowerment of educational actors. The processes of building and sharing knowledge, as well as transforming individual learning into collective learning, contribute to more effective, participatory, and sustainable governance practices within educational setting

a) Design/methodology/approach

This study adopts a qualitative approach in order to provide an in-depth understanding of complex phenomena such as learning processes and organizational governance. Data are obtained from primary sources, namely teachers who hold administrative and management positions in schools, and are collected through semi-structured interviews. This methodology enables the collection of diverse discourses, perceptions, experiences, and meanings perceived by participants regarding organizational learning processes and school governance. Content analysis is employed to identify emerging analytical categories and subcategories, as well as to support a systematic interpretation of meanings related to organizational learning and governance practices.

b) Theoretical base

Conceptual research is integrated with empirical research to foster and promote a consistent dialogue between theory and practice.

c) Results or expected results

The contextualized results indicate that schools which promote collaborative environments, openness to knowledge sharing, and active participation by their members tend to develop more coherent, reflective, and continuous improvement-oriented forms of governance. Organizational learning emerges as an essential mechanism for consolidating learning-oriented organizational cultures.

d) Originality/value

The originality and value of this study lie in the articulation between the concepts of organizational learning and school governance, empirically highlighting the relationships between individual learning, collective learning, and educational management practices. Drawing on multiple theoretical contributions and a qualitative empirical approach, the study contributes to a deeper understanding of the internal processes of school organizations, offering an interpretative perspective that values educational actors as agents of knowledge production.

e) Practical implications

From a practical standpoint, the findings support school management policies and practices that encourage organizational learning, teacher empowerment, and the creation of both formal and informal spaces for knowledge sharing. Valuing the intangible capital of schools fosters significant improvements in governance, the quality of organizational decision-making, and, consequently, educational performance. Thus, the study offers relevant contributions to both policymakers and school managers by highlighting the strategic importance of organizational learning in building more effective, democratic, and sustainable schools.

4.53 Perceptions of Portuguese employees on the effectiveness of Internal Communication

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Author keywords: Internal Communication, Perceptions; Employees; Portugal

Abstract:

Internal Communication (IC) plays a fundamental role in organizational contexts and is increasingly recognized as a crucial factor in organizational success. Studies conducted since the end of the 20th century have highlighted the strategic importance of Internal Communication, especially in promoting cohesion and alignment between employees and organizational objectives (Sebastião et al., 2017; Welch, 2012). Despite the global expansion of IC research, in Portugal, this field remains underexplored, notwithstanding increasing recognition of its importance for effective organizational management. Furthermore, the topic's relevance is widely acknowledged, as internal communication is essential for aligning employees around common goals, thereby promoting a more cohesive and productive work environment (Ganske and Carbon, 2023). The impact of Internal Communication was even more pronounced in the post-pandemic period, when organizations quickly had to adapt to new work models, including the intensive use of virtual communication means (Wang, B., et al., 2021; van Zoonen, W., and Sivunen, A. E., 2022; Yue, C. A., and Walden, J., 2023). Indeed, these changes brought new challenges and opportunities for Internal Communication, further reinforcing its critical role, for example, regarding the effectiveness of communication channels and the appropriate choice of these means, which appear as fundamental to improving Internal Communication and, consequently, influencing variables, such as employee engagement and satisfaction (Lee, 2022). The Internal Communication, as presented by various authors, can encompass “the entire spectrum of communication activities, formal and informal, carried out by its members to disseminate information to one or more

audiences within the organization," even though it is information oriented (for example Carrière and Bourque, p. 31, 2009, by Araújo, M., and Miranda, S., 2021). However, some authors mention that it can have a relational focus, which also has the objective of "The exchange of information and ideas among employees or members of an organization (social actors) to build relationships of trust and openness and to create understanding" (Jacobs et al., p. 62, 2016, by Araújo, M., and Miranda, S., 2021). It is also important to note that, regarding IC, it can also pertain to the organization's information management activity and may include Internal Marketing (Araújo, M., and Miranda, S., 2021). In the way Internal Communication operates, the literature points out that for it to be effective, the choice of communication channels must be strategically aligned with the different phases of organizational change processes (Rita Men et al., 2022), encouraging the exchange of information both vertically and horizontally, clearly and transparently, despite the complexity of the messages to be conveyed. Subsequently, Symmetrical Internal Communication encompasses the assumptions of an ethical and effective IC, focused on constructive dialogue, empathy, and constant feedback, encouraging employees to be more proactive and participative in the decision-making process, being, therefore, an organizational model that promotes equality, transparency, and reciprocity in the exchange of information within the company, encouraging dialogue across all hierarchical levels (Grunig, 1976; Lee, 2022). The main objective of this study is to identify, from the employee perspective, the main factors that influence the effectiveness of internal communication. For this purpose, a survey was administered online, disseminated via social media (LinkedIn and Instagram) and Facebook survey groups, and accessed via QR codes on flyers at various locations. Thus, it was possible to collect a comprehensive sample representative of different types of employees from different departments and hierarchical levels of the organization, ensuring the diversity and comprehensiveness of the data. A total of 205 valid complete responses were obtained, with the survey being available for 2 weeks in September 2024. Internal Communication was measured using a scale developed by Welch (2012), which assesses different dimensions of Internal Communication, such as clarity of information, communication frequency, and perceived support from leadership. It was divided into "Update," "Voice," "Feedback," "Clarity and Transparency," "Horizontal IC," "Vertical IC," and "IC Channels." The items considered for each of the IC dimensions were adapted from Lee, Y., (2022), Gomes, D. R., Ribeiro, N., and Santos, M. J. (2023), Tkalac Verčič, A., and Špoljarić, A. (2020), Santoso, N. R., Sulistyaningtyas, I. D., and Pratama, B. P. (2022). The results highlight a sample which did not show a normal distribution, being more prevalent among women, Generation Z (ages between 16 and 27), with Higher Education (84.9%). However, diversity is observed across areas of work, showing a more normally distributed pattern, with the Education field leading (14.6%), followed by Administration, Management and Support Services, as well as Communication and Marketing with similar relevance (11.2% each), and Health and Social Support (10.7%). It is possible to observe differences regarding the work model, since IC must be adapted according to the work context and circumstances, although the proportion of respondents in remote work arrangements remained low (only 4.9%), 33.2% work in a hybrid mode, which is considered a considerable percentage for comparison analysis with the in-person model.

Regarding Internal Communication, the data indicate that “Horizontal IC” (the exchange of information among colleagues) is the most effective, suggesting that employees have more positive perceptions in this area. On the other hand, “Vertical IC,” which involves communication between different hierarchical levels, was evaluated more neutrally, especially regarding how information is conveyed between leaders and employees. It was also concluded that the variables “Voice” and “Feedback” showed a large variation in responses, suggesting that employees have very different experiences in these areas, which may denote that some organizations have more open and receptive practices, while others do not our the same opportunity for feedback and expression of opinions (organizations with a more symmetrical or asymmetrical type of communication, respectively). The variable “Clarity and Transparency” translates into a less positive perception regarding the transparency of communication, a sign that communication, in some practices, may not be clear enough. In short, “Horizontal IC” has a very positive opinion, in general, while “Vertical IC,” “Feedback,” “Clarity and Transparency,” and “Voice” are areas where employee perceptions are more varied, and therefore deserve greater attention to ensure that they feel more heard and valued (Li, J. Y., et al., 2021). The analysis also revealed that variables such as age, educational qualifications, and work area influence the way IC is perceived and, in turn, the impact on other important dimensions such as engagement. Thus, organizations should tailor their communication strategies according to the needs and expectations of different age and professional groups. For example, younger workers may value being more up-to-date and the use of digital channels, while more experienced workers may place greater importance on the clarity and transparency of the messages conveyed.



4.54 Replacing the triple helix with the cats cradle

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Author keywords: Triple Helix**,** Cats Craddle**,** Science funding**,** Impact**,** Absorption Logic

Abstract:

The last-century model of the Triple Helix (TH) has become outdated. Four of the several factors that require modernizing are discussed. It is proposed that, as the TH model becomes more and more obsolete, it can be replaced by an anastomose branching model tentatively called the “Cats Cradle” (CC). The CC model allows entry of any innovation player at any node or tie, and furthermore contains an explicitly geographical element, namely pan-regional.

4.55 Rooted Yet Restless: Why Expat Academics Stay Abroad?

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Author Keywords: academic expatriation**,** HEI**,** internationalization of academia

Abstract:

This study examines how expatriate academics (EAs) achieve embeddedness in host universities through the dimensions of links, fit, and sacrifice. Drawing on interviews with 50 scholars from 21 countries across 16 Polish universities, we reveal that EAs often exhibit incomplete embeddedness yet express strong intentions to remain. Their persistence stems from robust ties to both foreign and local communities, alongside key benefits such as job stability, personal safety, high quality of life, professional recognition, and career opportunities. Challenges persist, however, particularly in organizational fit, driven by inadequate systemic support and communication barriers. By applying embeddedness theory to the understudied context of EAs, this paper elucidates their networks, adaptation processes, and perceived sacrifices. It provides actionable insights for university leaders and policymakers to enhance support mechanisms and retention strategies, while establishing a foundation for comparative studies and future research on academic expatriation management.

Theoretical background- Job embeddedness theory

Job embeddedness theory explains employee retention through three dimensions: links to people, fit with jobs/organizations/communities, and sacrifice of leaving (Mitchell et al., 2001). On-the-job embeddedness covers organizational links, fit, and sacrifices; off-the-job includes community ties (Crossley et al., 2007)

Links

For expatriate academics, international links disseminate research, boost visibility, and build intercultural competencies (Welch, 1997; Pylväs and Nokelainen, 2021). Interactions with diverse scholars foster creativity and innovation (Nasser Al-Tamimi and Abdullateef, 2023). Social networks enhance embedding, psychological well-being, and resilience (Ho et al., 2024; Wang and Kanungo, 2004; Feeney and Collins, 2015), influencing stay-or-leave intentions (Aminullah et al., 2022; Schoepp, 2010).

Fit

Fit aligns with expatriate adjustment models describing cognitive, affective and behavioral issues (Agha-Alikhani, 2018; Gress and Shin, 2020) and facets general conditions and social interaction (Black and Stephens, 1989; Haslberger et al., 2013; Puck et al., 2017; Richardson, 2000; Selmer and Lauring, 2009; Wilkins and Neri, 2019). For

EAs, “fit” means aligning research and teaching with host institutions, adapting communication and pedagogical styles (Lamers-Reeuwijk et al., 2020; Seah and Edwards, 2006; Smith et al., 2016). EAs expect from host institutions financial, and career support, yet universities often fall short, lacking retention programs and adaptation initiatives addressed to foreign scholars (Isakovic and Whitman, 2013; Jais et al., 2015; Cura, 2019; Richardson and Wong, 2018).

Sacrifice

Sacrifice entails perceived losses from leaving. Expatriate academics balance home/host ties, facing community over professional costs like lost relationships. Home tenure barriers push "first in a village" roles abroad (Mucha and Łuczaj, 2017; Przytuła et al., 2024). Some avoid links for temporary stays (Mucha and Łuczaj, 2017; Love et al., 2021; Selmer, 2025). Deep embedding means strong connections, cultural alignment, and benefits hard to relinquish.

Method

This exploratory study adopted an interpretive qualitative approach with in-depth interviews to explore EAs' relationships with local scholars, networking in research/teaching, work adjustment, professional benefits and challenges, and career plans. Multi-stage purposive sampling drew from POL-On -the primary source of knowledge on Polish science and higher education (2022), NAWA - Polish National Agency for Academic Exchange (2022), and university websites. Fifty expatriate academics (18 females) representing 21 countries were recruited from 16 Polish universities. In terms of employment, the sample included 21 researchers, 18 in research and teaching positions, 10 language instructors, and 1 person in a teaching-only role. The respondents represented a range of disciplines: 20 worked in the natural sciences, 17 in the humanities, 8 in engineering and technical sciences, 4 in the social sciences, and 1 in the medical sciences. The duration of their stays in Poland ranged from 1 to 30 years, with 27 expatriates on short-term contracts of 1–3 years. The interviews were conducted with 29 participants in person and 21 online via Zoom or Teams, each lasting between 60 and 90 minutes. Ethical standards followed Creswell and Plano (2018), with informed consent, confidentiality, and withdrawal rights. Transcripts of interviews underwent qualitative content analysis (Shah et al., 2020), with iterative codebook development for links, fit, and sacrifice themes.

Conclusions

Job embeddedness theory illuminates EAs' retention in Polish universities through links, fit, and sacrifice. Strong professional networks with mentors, international teams, and peers drive integration, enhancing employability, motivation, and cultural immersion of foreign scholars. Despite challenges like hierarchical structures in Polish universities, limited local collaboration, and language barriers, personal bonds with students and community activities (e.g., science festivals) foster belonging. Fit emerges from positive external factors (housing, infrastructure) and professional perks like academic freedom, autonomy, and prestigious facilities. However, systemic gaps -lacking HR support,



administrative guidance, clear contracts, and overburdened workloads-hinder full embedding, leaving EAs underutilized despite their potential contributions. Sacrifice underscores EAs retention: leaving means forfeiting research gains, infrastructure, stable jobs amid global competition, and personal benefits like safety, quality of life, cultural immersion, and family security. For refugees (e.g., from Ukraine, Iran, Nigeria), Poland offers stability and opportunities for developing scientific career. The title “Rooted Yet Restless” captures the paradox at the heart of expatriate academics’ positioning in Poland: they are deeply embedded in Polish academic life through professional networks, cultural integration, and institutional opportunities, yet remain oriented toward mobility and alternative futures. Job embeddedness-through links, fit, and sacrifice-explains why they stay, even as many remain psychologically open to leaving.

Expatriate academics are “rooted” by strong professional and personal links that bind them to their host institutions. International collaborations, mentoring relationships, and inclusive teams foster a sense of belonging and academic vitality. However, hierarchical structures, and language barriers often constrain their full integration, keeping them in a “restless” state where networks are hybrid-partly local, partly global.

At the same time, perceived fit with work conditions, academic freedom, and infrastructural resources makes Poland an attractive workplace. Yet many EAs feel underutilized and hampered by weak organizational support, unclear responsibilities, and escalating administrative burdens. This partial fit reinforces ambivalence: they experience enough professional and social benefits to stay, but not enough to fully disengage from other career possibilities.

The “rooted yet restless” stance crystallizes around sacrifice. Leaving Poland would mean forfeiting advanced research environments, stable contracts, safety, family-oriented living conditions, and a sense of cultural belonging. For refugee-type expats, Poland is a lifeline, not merely a career stopover. Nonetheless, home attachments, family ties, or ambitions for further mobility preserve an underlying restlessness, making repatriation or onward relocation imaginable futures.



4.55 Silence, Voice and Algorithms: A Conceptual Model of Leadership, Employee Voice and AI-Mediated HRM

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Author keywords: Employee voice; Silence; AI-mediated HRM; Psychological safety; Leadership

Abstract:

Purpose This paper develops a conceptual model linking leadership, employee silence and voice, and AI-mediated HRM practices in contemporary organisations, with a particular emphasis on hybrid and digitally monitored workplaces. Its purpose is to explain how AI-supported HR tools interact with leadership behaviours to either suppress or enable employee voice, knowledge flows and ethical problem-raising, including speaking up about risks, unfairness and misconduct. The paper addresses the growing concern that algorithmic management and digital surveillance may

unintentionally institutionalise silence unless counterbalanced by leadership that actively protects psychological safety and channels of voice. Theoretical Base The model integrates theories of employee silence and voice, psychological safety and HRM, highlighting how fear, futility and relational concerns affect decisions to withhold or express concerns and ideas. It incorporates transformational, ethical and servant leadership perspectives, which emphasise leaders' roles in signalling openness, fairness and respect, thereby shaping perceived safety and voice opportunities. Emerging research on AI in HRM and algorithmic governance is used to conceptualise how AI-supported decisions and digital monitoring alter perceived fairness, transparency, privacy and opportunities for meaningful voice. Methodology A conceptual methodology is used, organising existing research into a set of constructs and mediating mechanisms connecting leadership style, AI-mediated HR practices and voice-related outcomes. Core constructs include leadership orientation (e.g. inclusive, ethical, authoritarian), psychological safety, perceived procedural and interactional justice, and features of AI systems such as transparency, explainability and intrusiveness. The paper proposes a process model in which leadership shapes psychological safety and justice perceptions that, in turn, influence whether employees experience AI-mediated HR decisions as enabling voice and learning or as threatening, silencing and stigmatising. Data The conceptualisation is supported by secondary studies on silence and voice, psychological safety and HR antecedents of speaking up, which document how low safety and mistrust are associated with defensive and ineffectual silence. It also draws on empirical and practitioner reports on AI in HR and digital surveillance in the workplace, including evidence that opaque monitoring and automated evaluation can erode trust, perceived fairness and well-being. Illustrative examples from these studies are used to formulate propositions for future qualitative and quantitative testing regarding how different leadership styles and AI governance choices shape silence, voice and knowledge flows. Conclusions The paper concludes that leadership which explicitly protects voice, dissent and critical feedback is crucial when HR decisions and monitoring are partially delegated to AI systems. Such leadership can use AI as a tool to support learning and safety by ensuring transparency, limiting intrusive surveillance and providing secure, confidential channels for reporting concerns. Where leadership is authoritarian, passive or indifferent, AI is likely to become a force that reinforces silence, amplifies perceived risks of speaking up, reduces organisational learning and ultimately undermines integrity and resilience. Implications and Limitations The model provides HR and organisational development professionals with a conceptual basis for designing AI-mediated HRM that encourages voice and protects psychological safety, including guidelines for responsible surveillance, algorithmic fairness and participatory design. It suggests that leadership development, HR policies and AI governance frameworks must be aligned to ensure that employees understand AI systems, can challenge decisions and feel safe raising concerns about both work and technology. Limitations include the lack of direct empirical testing of the proposed process model and the need for cross-cultural research on voice norms, power relations and AI perceptions in order to refine and contextualise the framework across different institutional settings.

4.56 Simulation-based Learning in Undergraduate Business & Management Education: Exploring Learner/Student Engagement Effects

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Author keywords: Simulation-based Learning, Business Simulations, Student engagement, Undergraduate business education, Higher education context, UK higher education institution

Abstract:

Setting:

The recent transformation of the higher education sector occasioned by the rapid advancement of technology, evolving pedagogical theories, and the changing demands of the modern workforce has led to the increasing adoption of various innovative teaching methodologies/strategies by higher education institutions (HEIs) aimed at improving learning outcomes and student experience in general (Rosario & Raimundo, 2024; Buil, Catalan & Martinez, 2020). One of such innovative teaching methodologies or strategies is the simulation-based learning (SBL). SBL is a learning/educational tool that uses interactive, often technology-driven simulations to replicate real-world scenarios within a controlled environment (Rosario & Raimundo, 2024). It is argued that SBL helps to bridge the gap between theoretical knowledge and practical application as it allows students to engage in experiential learning of real-world situations without the risks associated with the real-world practice. While SBL has been relatively established in other fields of education such as medical/nursing education and engineering education, integration of SBL into business higher education has been relatively recent. Business simulation-based learning is often designed in the form of a virtual replication or software-based mimic of real business situations that enables students/learners to engage in management of a company/business activities in a risk-free environment (Buil, Catalan & Martinez, 2020). Business simulation-based learning provides a context for 'learning by doing' which enhances students/learners understanding practical application of business/management concepts and interrelationship of various business functions.

However, besides the potential benefit of helping to bridge the gap between theoretical knowledge and practical application, business simulation-based learning is argued to also hold a promise of facilitating/improving students' engagement. It is argued that students' perceptions of competence and autonomy while engaging in simulation-based learning activities promote their learning engagement (Buil, Catalan & Martinez, 2020).

While so much has been written about the link between student engagement and technology-based learning tools/educational technology in general (see e.g., Bond et al, 2020; Bond & Bedenlier, 2019), little or nothing is known about the link between simulation-based learning and student engagement and the promise of improving student engagement by simulation-based learning.

Purpose:

The purpose of this paper and the underlying research is to explore the student/learner engagement effects of business simulation-based learning in a higher education context using a specific undergraduate business simulation module in a UK university. The paper will explore the question of whether and how business simulation-based learning activities in this module impacted on the engagement of students in with learning and the outcome of learning.

Theoretical Base:

The concept of student/learner engagement

Methodology:

The study is carried out in a faculty/school of a university in the United Kingdom. The participants are first-year students who studied a semester-long simulation-based business module within the business management undergraduate course. Data are collected through mixed sources of a self-administered questionnaire at the end of the semester and a qualitative semi-structure interview conducted subsequently. Data from two cohorts of two different academic years (2024-25 and 2025–26) were included in the study. Participation is voluntary, and the anonymity and confidentiality of data is guaranteed for the participating students

4.57 Strengthening Fragile Bridges in KM/IC Research and Building Stronger Foundations – Possible Directions for Future KM/IC Research.

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Author keywords: KM, IC, Bridges

Abstract:

One can probably date the beginning of formal research into Knowledge Management to the early to mid 1990s (Koenig and Neveroski, 2008). In the intervening 35 years or so a vast quantity of research has been published in journals dedicated to Knowledge Management journals related to different business management disciplines, as well as in numerous books, and other media. Over these years, this research community has, to some extent, become bifurcated into a Knowledge Management focused research community and an Intellectual Property focused research community. Despite this bifurcation, one of the common features of both research domains is that they may lack strong theoretical foundations. This is not to say that the term 'theory' is absent from many publications in KM or IC. However, it is generally unclear as to what part the term plays in either research discipline. We hazard to suggest that the term 'theory' has a rich and contested history which is seldom addressed in the IC/KM research literatures. Often the term is used as if it had an unequivocal meaning. At the very least we encourage active discussion of the various ways in which the term can be used and their relevance to KM/IC research. Another concerning feature related to this bifurcation is that it belies the close interrelationships between the concepts enacted by researchers who identify themselves, to some extent, as KM or IC researchers.

In addition, though some conceptual analysis has been conducted with respect to the nature and inter-relationship among the concepts that have been repeatedly used (e.g., Knowledge, Intellectual Capital, and Knowledge Assets) no firm foundational meaning of the terms has been developed. Much empirical work has been conducted utilizing the terms with considerable inter-study validation. However, this is troubling since the concepts are so ill defined and hence the degree to which such research builds firm foundations for KM or /IC research is debatable. It can be further observed that although reference is made to other research disciplines such as Economics, Strategic Management, Information Systems, and Philosophy of Science these references are

often somewhat superficial and limited, as many of the discussions relating to such concepts as tacit knowledge where only passing reference is made to some of the foundational literatures. Such failure to build on extensive relevant research in related academic disciplines exposes a fatal flaw in KM/IC research, both with respect to theory and the validity and meaning of much of the research conducted.

This paper considers these issues in more detail along with tentative suggestions as to how such conceptual challenges may be addressed. In addition, future directions are discussed, including how KM/IC research can be enriched by recognizing links to other research domains, reengaging with achievable research goals, and becoming more inventive in the development of research questions and use of research methodologies.

Koenig, Michael & Neveroski, Kenneth. (2008). The Origins and Development of Knowledge Management. Journal of Information & Knowledge Management. 7. 10.1142/S0219649208002111



4.58 Students' knowledge and awareness of air pollution and environmental challenges: Evidence from the VISIONAIR project

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Author keywords: Air quality, environmental awareness, sustainability, environmental education, air pollution.

Abstract:

Air pollution represents an important environmental and public health challenge of the 21st century. The combined effects of ambient and household air pollution are associated with 6.7 million premature deaths annually (WHO, 2024), which generates substantial social and economic costs. There is a large amount of scientific evidence on the negative consequences of air pollution, but public awareness and understanding of air quality issues remain weak. Universities therefore have an important role in educating students about environmental issues to provide the knowledge necessary to understand complex environmental challenges and support sustainable development. Higher education institutions are expected not only to provide theoretical knowledge, but also to provide interdisciplinary competencies and practical awareness related to environmental protection, climate change, and public health.

In this context, international educational initiatives represent an important mechanism for strengthening environmental education and improving students' understanding of environmental issues. One such initiative is the Erasmus+ project VISIONAIR, which aims to improve students' competencies related to air quality, environmental data analysis, and the broader impacts of air pollution on health and society. The project integrates interdisciplinary teaching activities and digital learning tools in order to inform students about current environmental challenges and analytical approaches to air quality monitoring and assessment.

Although environmental topics are increasingly present in higher education curricula, there remains a need to better understand how educational projects and similar initiatives influence students' knowledge and awareness of environmental issues. In particular, it is important to have empirical evidence on how students perceive environmental challenges and how well they understand the causes and consequences

of air pollution. This study therefore aims to explore the level of environmental awareness and knowledge related to air quality among university students participating in activities associated with the VISIONAIR project.

The empirical analysis is based on survey data collected among university students participating in VISIONAIR related educational activities. Two structured questionnaires were administered to students at different stages of the educational process. The questionnaires include a range of questions designed to assess several dimensions of environmental literacy. These dimensions include students' understanding of the causes of air pollution, awareness of its environmental and health consequences, familiarity with air quality monitoring concepts, and the perceived importance of environmental protection and sustainable development. In addition to questions that assess knowledge about this topic, the survey also includes questions that capture students' perception, which presents a subjective assessment of the relevance of air quality issues and their perceived responsibility in addressing environmental challenges.

The analysis examines patterns in students' responses in the surveys in order to identify environmental awareness and knowledge. The results of the analysis provide insight into how students perceive environmental challenges and the extent to which they understand the causes and consequences of air pollution. Findings suggest that while students generally recognize air pollution as an important environmental problem, there are notable variations in their level of knowledge regarding specific sources of pollution, environmental impacts, and the role of policy measures in improving air quality. At the same time, the findings indicate a relatively high level of interest among students in environmental topics, suggesting that educational initiatives focusing on air quality and environmental sustainability may have substantial potential to strengthen environmental literacy in higher education. The study also highlights the role of educational projects in promoting interdisciplinary learning and raising awareness about environmental challenges. By integrating topics related to air quality and data analysis into educational activities, the VISIONAIR project provides students with opportunities to engage with different environmental issues. Such projects may therefore contribute to improving students' understanding of environmental risks and encourage greater engagement with sustainability topics.

The contribution of this research lies in providing empirical evidence on students' knowledge and awareness of air quality issues within the context of an international educational project. It offers valuable insights into the environmental literacy of students involved in VISIONAIR project activities. Furthermore, the findings contribute to the broader discussion on the role of higher education in addressing environmental challenges and promoting sustainable development. The results may be particularly useful for educators, project coordinators, and policymakers seeking to create educational programs that more effectively communicate environmental risks and encourage active student engagement with environmental issues.

Overall, this study suggests that international educational collaborations such as the VISIONAIR project can play an important role in strengthening environmental awareness



and promoting interdisciplinary learning in higher education. Continued efforts to integrate environmental topics into university curricula and project initiatives may therefore represent an important step toward developing more informed and socially responsible future generations.

Acknowledgement

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4.59 Sustainable Finance: Challenges and Opportunities

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Author keywords: sustainable finance, sustainable market, green finance, green market

Abstract:

The aim of this article is to address the practical challenges posed by the taxonomy set out in the European Commission's Action Plan on Sustainable Finance. A previous study highlighted the need to implement strategic, cultural and process-related factors, as well as staff awareness and public recognition. Here, it is important to reflect on aspects related to sustainable finance, such as areas linked to the ambitious objectives of the action plan, which require private capital to be redirected towards more sustainable ends (Mylebust, 2020). This is why it has become urgent to discuss green finance, green projects, green rules, sustainable markets, sustainable products, renewable energy, and even trade finance. Clarifying the relationship between these topics and sustainable finance has become both necessary and urgent. We will adopt a reflective and descriptive approach. One of the greatest challenges lies in presenting certain sectors, markets, and roles/responsibilities that have emerged as a result of the focus on sustainable finance.

4.60 The Academic Library as Co-Producer of Transdisciplinary Engagement: A Social Exchange Framework for Resource Mobilization and Outreach

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Author keywords: Academic Libraries**,** Transdisciplinary Engagement**,** Social Exchange Theory**,** Arts-Based Research (ABR)**,** University Third Mission

Abstract:

Purpose

This paper explores the paradigm shift of the academic library from a passive repository to an active strategic and fiscal co-producer of public engagement, thereby addressing the university's "Third Mission". The research aims to evaluate how integrating permanent public art alters user perceptions, whether academic libraries can effectively serve as community hubs for environmental advocacy, and how the library functions as a strategic partner in cross-disciplinary initiatives. Ultimately, it seeks to provide a roadmap for libraries to become active architects of their university's public mission.

Design/methodology/approach

The study utilizes a qualitative, single-site case study methodology, focusing on the LACES (Lab for Art, Community, Ecology & Science) Library Mural Project at the University of Malta. It applies Social Exchange Theory (SET) to analyze the library as a strategic partner exchanging capital for institutional impact. Data was triangulated across three streams: administrative and financial document analysis, semi-structured interviews with library management and faculty leads, and pre- and post-installation user surveys combined with non-participant observation.

Findings

The permanent integration of the arts-based research installation successfully transformed a high-traffic transit zone into an active community hub, radically shifting user perception from seeing the library as a "sterile" space to recognizing it as an advocate for sustainability. The library's fiscal agency, specifically its management of internal funds and a secured Corporate Social Responsibility (CSR) grant, empowered it to enforce project governance and upgrade the research from a temporary exhibit to a permanent educational resource. Faculty stakeholders confirmed that the library's central, neutral positioning provided crucial institutional legitimacy to their arts-based community collaborations.

Research limitations/implications

Limitations include the single-site case study design at a university with a unique geopolitical context as the sole national university in a small island state, which may affect generalizability. Additionally, the study acknowledges potential researcher insider bias, reliance on a specific external CSR funding model that may not be available to all institutions, and the short-term temporal nature of the post-installation impact data. Future longitudinal research is necessary to assess the enduring legacy of the installation.

Practical implications

The research proposes the "Strategic Reciprocity Model," which reframes outreach as a negotiated transaction rather than a unilateral service. By trading spatial and financial capital for the faculty's pedagogical capital, libraries can convert administrative costs into significant institutional profit, such as higher user engagement. This framework provides actionable pillars for libraries to overcome departmental silos and institutionalize transdisciplinary methodologies like Arts-Based Research (ABR) and STEAM.

Originality/value

This paper addresses a significant gap in existing literature by evaluating the academic library not merely as a venue or service provider, but as an active strategic funder and co-producer of research. It innovatively applies Social Exchange Theory to internal "Library-Faculty" partnerships rather than external "town-gown" relations. Furthermore, it investigates the operational realities of establishing permanent, rather than temporary, transdisciplinary art installations within the rigid structural confines of a functioning academic library.

4.61 The Conceptual Model of the CSR in Moroccan SMEs

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Author keywords: Conceptual Model, CSR , Morocco, SMEs

Abstract:

This paper addresses an important gap in the sustainability literature by responding to the limited attention given to context-specific CSR models in small and medium-sized enterprises, particularly “SMEs in Morocco”. It presents a conceptual model of CSR in companies that explains how CSR is integrated through a set of antecedent, mediating, moderating, and outcome variables. Drawing on stakeholder theory, trust theory of innovation, and the theory of conditions, the model proposes that CSR integration is shaped by leadership orientation, perceived competitiveness benefits, external pressure, and organizational readiness. These antecedent factors are expected to influence the extent to which CSR is embedded in strategic integration, operational integration, and communication and monitoring processes, which together form the core mediating mechanism of the model. In turn, CSR integration is theorized to enhance firm outcomes, including financial performance, reputational and relational gains, operational and environmental benefits, and long-term innovation. The model also recognizes that these relationships may vary according to country context, which is treated as a moderating variable. Furthermore, sector, firm size, firm age, women in leadership and family status are included as control variables to account for alternative explanations. Overall, the framework offers a more context-sensitive understanding of CSR in Moroccan SMEs and highlights the importance of leadership, organizational capacity, and institutional environment in shaping responsible business practices. As a conceptual contribution, it provides a foundation for future empirical testing and comparative analysis across different settings.



4.62 The design and teaching of an IC course in the times of AI

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Author keywords: Teaching Intellectual Capital, Responsible Artificial Intelligence, Radical Active Learning

Abstract:

a) purpose

Setting

The experience shared here was developed in preparation and during a course of Intellectual Capital (IC) for the Master in Information Studies at McGill University in Canada in 2026. The program is a non-Thesis, Professional Master's, directed mostly to students willing to join the workforce as knowledge managers, librarians, archivists and data managers. The course should explore all things related to IC, as it is the only one covering the subject in the program. Course design counts on content and evaluation structure supervision. The author had been teaching and improving the course for the past eleven years. The course, in its 2015 version, was focused on intellectual capital as an accountancy issue, its goal being to represent the financial or economic value that can be drawn from intellectual capital. The audit of IC in an organization was central to the course. The audit explored in the course involved an inventory of the intellectual assets of the organization and the assessment of their alignment with the organization's strategy. Another element explored in the course was the categorization of intellectual assets in order to facilitate investments and assess their return. In eleven years, while maintaining the same focus, different topics where added to the course. Creativity, innovation and change management and the creation and development of business models were topics that joined the intellectual capital literature per se, where topics as new kinds of capital, new models of IC and new ways of IC measurement in enriching the course content. The evaluation methods also evolved to some extent : students were able to chose between three assignments propositions for a third of the grade. The rest of the grade remained obtained by a categorization exercise, the analysis and presentation of an IC audit, categorization, valuation and alignment analysis over a business case, and participation in class. The form of classes remained the same : a lecture followed or mixed with active learning exercises, involving application exercises and discussions in pairs or groups. Topics related to Artificial Intelligence (AI) were mostly brought up by student-led conversations. In 2025, a generative AI platform became available to students and their general use of AI, in and out of school, became paramount. Meanwhile, the instructor and author was pursuing her practice in responsible AI and AI ethics and seeing very different ways of approaching intellectual capital, which heavily influenced the changes in the course.

Purpose

This experience was meant to raise or form in students a current view of intellectual capital, in the light of the spread use of AI and a prominent discourse of human replacement. It was meant to be a relatively controlled event where students experience, understand and master the rapid changes in IC creation, assessment and management that the advent of AI provokes while exploring IC in combination with AI content.

b) design/methodology/approach

Methodology

The methodology to approach IC in combination with AI was twofold : it invoveld content and learning or interaction design. In terms of content, the course was completely redesigned to include questions important to management of IC in combination with AI gradually and since the introduction to the concept and field of IC, meaning the first class. Ethics topics were integrated in all classes. 40% of classes were dedicated to an overview of IC in combination with AI, covering IC ethics topics such as epistemic diversity, security and rights; the different kinds of AI, their functioning and implications at the individual, group, organizational, regional and planet levels; AI and trust; IC value creation in the face of AI; AI impact, benefit and prejudice; IC and AI impact assessment and three international standards of AI evaluation and management. In terms of experience, the class design and the evaluation structure were modified. Classes were designed to explore content in different forms of discussion and games, in a radical active learning approach. The evaluation structure was heavily concentrated in presence and speaking in class. The only assignment left, a use case, was transformed from an individual report of solution-finding to a facilitated and included in class exercise.

c) theoretical base

Theoretical Base

AI adoption and use has disrupted ways in which IC is created, shared, portrayed, transformed, respected, embedded, assessed and managed, to mention just a few. IC is shifting from assets produced essentially by humans to assets that can be produced by applications. Guiding humans to produce IC has its challenges and some of them are different from the challenges of guiding applications to produce IC. Questions on how to integrate application-generated IC to human-generated IC or to replace it are very present in IC management today. Repercussions of the integration of applications-generated IC are to be considered in different levels. At the same time, the disruption affects how students perceive, absorb, value, produce and relate to knowledge. Offering answers had a prominent place in knowledge production and transmission at the university level. However, humans in general (and particularly students) are replacing the crafting of answers with the crafting of questions without guided consideration of the process. In 2026, students live a period of transition where guidelines about AI use

are general or have to be interpreted in each use case. The course was designed to explore the impact of AI in IC in both content and experiential levels.

d) results or expected results

Data

This report presents considerations about course design, both content and experience-related, regarding IC in combination with AI.

e) originality/value

This experience expands on the precedence of different teaching methods and approaches to content in order to adapt to the evolving portrait of future knowledge managers.

f) practical implications

In terms of content, the course presents topics that are very current but questions arise about the level of depth that can be achieved in each topic through radical active learning practice. Active learning is a promising venue to develop and retain critical thinking skills but the challenges to promote it are numerous and diverse.



4.63 The Erasmus Programme and the Development of Human Capital in Portugal

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Author keywords: ERASMUS, mobility, human capital development, employability, global managers

Abstract:

Globalisation is a long-standing phenomenon, with historical roots spanning several centuries, manifesting through processes of cultural and social circulation. It may be understood as a set of flows across different dimensions, namely cultures, individuals, goods, and ideas. The movement of individuals occurs for a variety of reasons, one of which is directly related to education.This domain is of particular importance in the contemporary context. Indeed, some scholars argue that the twenty-first century may be characterised as the "century of education". The mobility of individuals within education is not a recent phenomenon, having existed since the Middle Ages. Nevertheless, its scale has increased significantly, with notable growth observed in recent years. This expansion makes it imperative to develop internationalisation strategies in higher education, often implemented through partnerships between institutions that facilitate student exchange. Such partnerships are frequently established within the framework of well-established mobility programmes in the European area, among which the European Region Action Scheme for the Mobility of University Students (ERASMUS) stands out due to its prominence and widespread use. ERASMUS is a programme that aims to promote individual and group mobility in order to increase learning, cooperation, equity, excellence, innovation, and quality in teaching across Europe. Participants, who can be students, teachers, or staff, embark on this experience as they expect the benefits to outweigh the costs. Although this is a constantly growing international experience it still lacks a more profound appreciation. In this sense, this study aims to understand whether the ERASMUS can be considered an investment that contributes to the development of the human capital of those involved and whether this growth, stemming from the experience, will influence the perception of employability and enable the development of global managers. Based on mixed research, of 51 interviews and 315 questionnaires, we propose that, although each group presents a set of distinct motivations, benefits, and barriers, they end up taking important advantages from this experience which, in some cases, even allows the development of human capital. However, this progress does not influence the perception of employability, nor does it help in the development of global managers. Lastly, we suggest a number of future investigations. These recommendations are very focused on this international programme and its possible differences according to the characteristics of the participants and their sending and receiving countries.

4.64 The Evolution of Immigration in Portugal: A Comparative Analysis of Immigrant Populations in 1990 and 2024

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Author keywords: Immigration, Migration, Portugal, Migrant Population

Abstract:

With increasing immigration to Portugal, migration has become a prominent topic in Portuguese society. This paper presents a descriptive analysis of immigration to Portugal, focusing on both the distribution of migrants by country and region of origin and their overall income-level composition. The study examines the numbers from different countries and identifies the main reasons behind the migrant groups. In parallel, this work also analyses the socioeconomic profile of all migrants in Portugal, classifying the total migrant population into low-, middle- and high-income groups. The results reveal a concentration of migration flows from a limited set of countries, suggesting the importance of historical connections, linguistic proximity, migration networks as well as impacts from migration policies made over the past decades. The findings show that immigration to Portugal is highly concentrated among a relatively small number of countries, with migrants from Portuguese-speaking nations and countries with established migration networks representing a significant share of total inflows. By combining country-of-origin and income-level perspectives, this paper provides a comprehensive overview of the contemporary structure of immigration to Portugal and contributes to a broader understanding of migration dynamics in the country

4.65 The “Keep Going, Don’t Give Up!” Project as a Strategy for Promoting Academic Success and Preventing Dropout in Vocational Education: A Case Study of the Santo António School Cluster.

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Author keywords: Vocational education, school success, school dropout prevention, student motivation, educational intervention

Abstract:

a) purpose

The “Keep Going, Don’t Give Up!” Project was developed at the Santo António School Cluster with the aim of promoting academic success, reducing school dropout rates, and increasing student motivation, particularly among vocational education students. Implemented within a TEIP (Educational Territories of Priority Intervention) context, the project addresses the social and educational challenges faced by students from disadvantaged backgrounds.

The initiative focuses on supporting students throughout their educational journey, encouraging them to complete their training and develop clear goals for their future. To achieve this, the project promotes activities that encourage reflection on career aspirations, personal development, school integration, and life planning. These actions help strengthen students’ self-esteem, sense of belonging, and appreciation of education as a pathway to social inclusion and personal achievement.

The case study highlights that many vocational education students face challenges such as low motivation, absenteeism, and the risk of early school leaving. In response, the project provides personalized support through collaboration among teachers, guidance counselors, psychologists, and other school support services. It also emphasizes vocational guidance and the development of personal and social skills that are essential for both academic and professional success.

The expected outcomes include improved student retention, better academic performance, stronger engagement with the school community, and enhanced readiness for employment or further education. As a result, the “Keep Going, Don’t Give Up!” Project represents an effective strategy for promoting inclusion, equal opportunities, and educational success within vocational education.

b) design/methodology/approach

This study adopts a qualitative and exploratory case study methodology to examine the applicability of the "Keep Going, Don't Give Up!" project within Santo António School Cluster. Data will be collected through document analysis, semi-structured interviews with members of the educational community, and questionnaires administered to students and teachers. Qualitative data will be analysed using content analysis, while quantitative data will be examined through descriptive statistical techniques.

The triangulation of multiple data sources will be employed to strengthen the validity and reliability of the findings.

c) theoretical base

If the aim is to analyse the applicability of the project within Santo António School Cluster, a combination of the following theories provides a robust and contemporary framework:

- Bronfenbrenner's Ecological Systems Theory (main theoretical foundation);

- Resilience Theory (to explain protective factors and positive adaptation);

- Self-Determination Theory (to explain motivation, engagement, and persistence in education).

Together, these perspectives offer a comprehensive basis for understanding the context, identifying risk and protective factors, and explaining the mechanisms through which the project may contribute to educational success and the prevention of school dropout.

d) results or expected results

The study is expected to demonstrate that the "Keep Going, Don't Give Up!" project is a relevant and applicable intervention within Santo António School Cluster. It is anticipated that the project will contribute to increased student motivation and engagement, reduced absenteeism and school dropout risk, improved academic performance, and strengthened socio-emotional competencies. Furthermore, the findings are expected to highlight the importance of collaborative work among students, families, school staff, and the wider community in promoting educational success and inclusion.

e) originality/value

This study is of significant scientific, educational, and social importance, as it seeks to analyse the applicability of the "Keep Going, Don't Give Up!" project within Santo António School Cluster. The research will provide insight into how an intervention focused on promoting educational success, school motivation, and inclusion can address the needs of students and the wider educational community.

The findings may contribute to evidence-based institutional decision-making and support the development of more effective educational practices aimed at preventing academic failure and school dropout



f) practical implications

The practical implications of this study are related to its potential to inform educational practice, school management, and intervention planning. The findings may support the development of more effective strategies to enhance student engagement, reduce absenteeism and the risk of school dropout, and promote academic success. Furthermore, the study may provide valuable guidance for strengthening collaboration between schools, families, and community stakeholders, contributing to a more inclusive, participatory, and supportive educational environment for students.

4.66 The political ecology of AI between sustainability and digital progress

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Author keywords: Artificial intelligence, Sustainability, Progress

Abstract:

Artificial Intelligence (AI) often seems like some magical tool, floating somewhere in the "cloud" - clean, efficient, and almost removed from the material world. But behind every AI system, every automated recommendation, and every chat interface, there is an actual cost- a human cost. The AI industry is not immaterial. It is deeply connected to the land, and to the people who mine, build, and power it. Many of these people, mostly in the Global South, rarely see the benefits of the AI boom. This contribution aims to critically examine the extractive foundations upon which AI technologies are built, focusing on the material, political, and environmental factors that enable their development. Rather than accepting the dominant narrative that presents AI as a disembodied, knowledge-based system promising solutions to climate adaptation, public health, and development challenges, this research foregrounds the ecological costs and socio-political repercussions embedded in AI's global infrastructure. The work draws explicit attention to how contemporary AI industries perpetuate colonial patterns of exploitation through their dependence on rare earth and transition of minerals cobalt, lithium, copper —sourced from the Global South. The core ambition is to develop a political ecology perspective that links digital economies to extractive ones, reimagining AI not only as a technological phenomenon but as a site of accumulation, contestation, and environmental sacrifice.

Main objective is to map the ways in which the expansion of AI has intensified the global demand for rare minerals, and how this demand reconfigures landscapes, livelihoods, and governance structures in resource-rich, yet politically and economically marginalized, regions. The paper specifically examines the contradiction between the so-called "green transition" and the ecological violence it perpetuates under the guise of sustainability, development, and digital progress. Further, the contribution addresses the geopolitical asymmetries underlying global AI supply chains. The highlighting of these asymmetries would be contributing to ongoing debates around techno-colonialism, resource sovereignty, and environmental reparations, situating mineral extraction as a locus of both historical continuity and present-day dispute. Additionally, the contribution would exploring the legal architectures and governance models that facilitate extractive activity for AI industries within the current regime of economic globalization.

In summary, the objectives of this thesis extend beyond documentation or critique; they are oriented toward transformation. Starting from these considerations the central research question is: How does the AI industry reproduce global patterns of extractive

dependency through its material requirements, and what are the socio-environmental consequences for resource-rich regions in the Global South? From this starting point, the contribution would pursue several more focused questions. The paper adopts a critically engaged, interdisciplinary approach, drawing from political ecology, postcolonial theory, and critical development studies to interrogate the global structures linking AI industries to extractive economies. The methodology is explicitly political, foregrounding the realities of global inequality and the power relations embedded in the so-called digital revolution. The research design unfolds across three intersecting levels: an extensive critical literature review, in-depth document and discourse analysis, and comparative case studies. The literature review is not limited to standard texts; it encompasses foundational works in political ecology and decolonial thought, as well as emerging concepts such as necro stratification (Regilme,2024), environmentalism of the poor (Martínez-Alier,2002), techno-colonialism, and the political economy of extraction. Newer critiques from within AI ethics, especially those addressing materiality and global inequality, are included to bridge disciplinary gaps and develop a comprehensive analytical lens. Document and discourse analysis targets policy papers, corporate sustainability reports, international agreements, and governmental documents that shape the governance of both AI infrastructure and mineral extraction. Sources include institutions such as the United Nations, the OECD, and IMF, whose reports frame the AI industry in relation to sustainability, risk, and ethics. In contrast, the research critically examines how these same documents often omit the material and ecological costs of AI, particularly those borne by communities in the Global South.

Crucially, the methodology is grounded in a decolonial ethics of knowledge production. The attended results of the investigation received from the demonstration that AI cannot be separated from its political and ecological contexts. In other words, the contribution would be demonstrating that political ecology is not peripheral to AI critique, but absolutely central. The research seeks to provide scholars, policymakers, and activists with analytical tools to interrogate the material politics of AI, trace the often-invisible connections between the cloud and the ground, and to imagine a world where digital progress is no longer built on ecological ruin and post-colonial dependency.



4.67 The Role of FinTech in Financial Services: A Review of Adoption and Performance Impacts

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Author keywords: Financial technology, fintech, financial services, financial innovation

Abstract:

a) purpose

Financial systems increasingly rely on technology in their daily operations. Recent data indicate that the financial industry hasthe highest technology budget as a percentage of total expenditures, with approximately same investment levels to those of the technology sector. Consequently, technological innovations in financial services (FinTech) are transforming the financial system. FinTech activities are present in various financial institutions and segments, from traditional banking and capital-raising to cryptoassets. In recent years, key public bodies within the financial system, such as supervisors and regulators, have also begun to adopt financial technologies in order to improve speed, efficiency and quality of their processes. At the same time, both the levels of FinTech application and the number of peer-reviewed academic publications on this topic have increased. Therefore, the main aim of this article is to review level of FinTech adoption across different segments of the financial system and to evaluate its impact on financial sector performance. The article will give particular attention to the role of regulatory and supervisory institutions in the adoption and application of financial technologies.

b) design/methodology/approach

This study adopts a literature review to examine the existing literature on FinTech adoption in and its impact on financial sector performance. Two sources of literature are considered in the analysis. First, the publications from relevant international public

institutions, such as the Bank for International Settlement, the International Monetary Fund and the Financial Stability Board, are reviewed to identify various types of FinTech and analyse their implication for the financial sector. Second, a search will be conducted in major academic databases, including Scopus and Web of Science, using relevant keyword such as FinTech, financial innovation and technology adoption. The relevant and selected articles will be analysed to evaluate the impact of FinTech on financial sector performance. The findings of the literature review will be synthesized to provide an overview of the current state of research and to highlight potential directions for future studies.

c) theoretical base

The Financial Stability Board defines financial innovation (FinTech) as technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services. Consequently, FinTech is influencing a wide range of areas within the financial services sector. All financial institutions, even market leaders, have to implement financial innovations within their organization in order to offer improved or new products and services, as well as improve internal efficiency and quality of processes. At the same time, consumers expect financial institutions to provide functional and innovative solutions, which influences consumers decision to remain loyal to their current provider of financial services.

d) results or expected results

The literature review is expected to identify a) the scope of FinTech within the financial system and b) the impact of financial innovation on financial sector performance. In addition, the review will highlight key challenges and risks associated with fintech adoption, as well as opportunities to improve the performance of financial institutions through the implementation of financial innovations. The findings are expected to indicate that the adoption of Fintech has a positive impact on the efficiency and profitability of financial institutions, while also enhancing the overall consumer experience and the quality of financial services.

e) originality/value

This study will contribute to the existing literature by providing a literature review on FinTech adoption and its impact on financial sector performance. By synthesizing the findings of previous studies, the article will also identify current research trends and gaps, thereby offering potential directions for future studies. Consequently, the study will provide valuable insights for academics, regulators and professionals in the financial industry who seek to better understand adoption of Fintech across the financial system and the implications of financial innovation for the performance of financial services.

f) practical implications

The identification of FinTech adoption across different segments of the financial system can help financial institutions to better understand the prerequisites for successful



technological innovation and identify potential market niches. Such insights may support the development of more effective IT strategies and innovative financial solutions. These could potentially improve institutional efficiency, profitability and overall competitiveness. Regulators and policymakers may also benefit from the study's findings. A better understanding of FinTech adoption and its implications can support the development of appropriate regulatory frameworks that encourage financial innovation, maintain financial stability and ensure consumer protection.

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4.68 The role of researcher's motivation and self-efficacy on University-Industry collaboration

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Author keywords: University-Industry, collaboration, Motivation, Self-efficacy, Collaboration beliefs

Abstract:

a) purpose

The main objective of this paper is to emphasise the mediating role of self-efficacy on promoting collaborative behaviours between academics and industry. A second objective is exposing the moderating role of the discipline(s) involved in the researcher's activities, given the expectation that the perceived relevance of University-Industry collaboration (UIC) for the academic role depends on the main scientific area of teaching and/or researching.

b) design/methodology/approach

As part of a project to foster academic entrepreneurship and UIC, a questionnaire was designed to assess current or past participation in core UIC channels (training, consulting, knowledge transfer, and collaborative research funding), measuring collaboration motivation and self-efficacy, and beliefs about the relevance of UIC as well. A sample of 300 academics from two European universities (one from Poland and the other from Portugal) was selected. Participants were invited by internal email and, after a recall, 169 filled questionnaires were obtained (56 per cent response rate). The participants' disciplinary affiliation was collected applying the broad fields of education in ISCED-F 2013. Given the sample size, the fields were subsequently grouped into two categories: business, administration, engineering and ICT form the category with higher

expected UIC relevance; the remaining fields constitute the reference category. The research model is assessed by partial least squares structural equation modelling.

c) theoretical base

The core theoretical base is Bandura's self-efficacy theory, emphasising the role of beliefs regarding the subject's capabilities to act in ways leading to certain attainments. The role of self-efficacy beliefs has been extensively evinced by research on academic activities, such as teaching and researching; it has also been studied in UIC-related activities, such as knowledge sharing and academic entrepreneurship; but it is seldom referred in research on the UIC channels here studied. With support from this theoretical background, it is hypothesised that:

1. Self-efficacy is a relevant predictor of UIC behaviours;

2. Self-efficacy mediates the influence of motivation on UIC behaviours;

3. The perception of UIC relevance to the researcher's field moderates the effects of motivation and self-efficacy, in such a way that higher relevance intensifies those effects;

4. Academics from the fields of business, administration, engineering and ICT assign higher relevance of UIC on their field.

d) results

The model successfully explains 42% of the variance of UIC behaviours in the sample. Selfefficacy fully mediates the effect of motivation on UIC. The perceived relevance of UIC exerts a relevant role, resulting in stronger relationships between motivation, self-efficacy, and behaviour when relevance is high.

e) originality/value

This research emphasises the mediating role of academic researchers' self-efficacy on promoting collaboration between universities and industry by channels such as training, consulting, knowledge transfer, and collaborative research funding. Additionally, it brings new evidence on a subject mentioned in the literature, but with scarce empirical assessment, which is the impact of the academic discipline on UIC. It is evinced that academics from the fields of business, engineering and ICT put more relevance on UIC, which favours the impact of motivation and self-efficacy on UIC behaviours.

f) practical implications

Increasing UIC behaviours depends on the staff perception of their capabilities to do so. Fostering self-efficacy may be achieved by training on competences to relate with the outside world, but also by an effective support system facilitating the contacts between external organisations and the staff more suited to the particular UIC context. Of crucial importance may be the need to involve academics who perceive UIC irrelevant for their teaching and researching. An effective system of UIC could counter these perceptions by stressing that UIC is not disciplinary, it increasingly develops from transdisciplinary approaches potentially involving valuable contributions from academics from any field.



4.69 The 'Quest for the Irrational' in Firms: The Dalinian Paranoiac-Critical Method for Innovation and Technology Management

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Author keywords: Creativity, Innovation, Delirium, Cognitive heuristic, Organizational Creativity, Non-linear Innovation Processes.

Abstract:

This conceptual paper addresses a core challenge in Innovation and Technology Management (ITM): how to deliberately structure non-rational cognition in early-stage innovation processes. Drawing on Salvador Dalí's Paranoiac-Critical Method, a technique for producing and stabilizing irrational associations, this study proposes a novel cognitive heuristic for managing creativity under uncertainty. The paper critically reviews rationalist biases in ITM and demonstrates how Dalí's method can be translated into organizational practices that separate exploratory imagination from evaluative judgment. It presents a structured and phased framework that legitimizes irrational ideation. The study contributes to theory by expanding ITM's cognitive boundaries and to practice by offering tools for fostering radical innovation. Future research directions and organizational implications are also discussed.

4.70 When depopulation and ageing reinforce each other: towards a research framework for metropolitan areas

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Author keywords: depopulation, population ageing, demographic resilience, public services, migration behaviour, metropolitan area

Abstract

a) Purpose

The primary purpose of this paper is to address the growing disconnect between demographic theory and the practical challenges of metropolitan governance. Across post-industrial Europe, many metropolitan areas are facing a „double challenge": they are losing residents while the remaining population ages rapidly. While these two processes are often studied separately, this research explores how they reinforce each other in a „demographic spiral".

A key objective is to understand the role of the „middle generation" – residents in their 40s and 50s – who act as the anchor of the metropolitan community. These individuals are often caring for both children and ageing parents simultaneously. This research asks whether specific metropolitan conditions, particularly the provision of local services like health, care, and transport, can interrupt the cycle of decline by retaining this critical demographic group. By focusing on individual decisions rather than just aggregate trends, the paper seeks to provide metropolitan authorities with a better understanding of how service investments relate to demographic resilience.

b) Design/methodology/approach

The research is designed as a pilot study focused on the Górnośląsko-Zagłębiowska Metropolia (GZM) in southern Poland. GZM is a polycentric metropolitan union of 41 municipalities that provides a unique „laboratory" due to its internal diversity. The study uses a multi-method approach, combining several types of data across a few contrasting municipalities:

1) survey data: collecting information on individual migration intentions and perceptions of local services.

2) administrative register data: analysing actual population changes and demographic structures at the local level.

3) geospatial indicators: measuring the physical accessibility of local services such as transport hubs, clinics, and care facilities.

The core of this approach is treating local services not as background conditions, but as „active variables" that directly shape migration behaviour. By comparing municipalities that look similar on paper but follow different demographic trajectories, the study identifies which specific configurations of services lead to better population stability.

c) Theoretical base

This paper draws on three main theoretical strands: spatial demography, migration behaviour theory, and the literature on public service accessibility. It situates the research within the broader debate on demographic resilience in shrinking cities – a concept that describes a locality's ability to maintain stability despite negative structural trends.

The research addresses a significant theory-application gap. Traditional demographic models are often too general to be useful for local governance; they project trends but do not explain the local mechanisms that drive them. By bringing these theoretical strands together, the paper proposes a new analytical object: the specific local conditions under which the departure of working-age residents accelerates ageing, and how local service provision can mediate this relationship.

d) Results or expected result

As the project is currently in its pilot phase and survey data collection is scheduled for mid-2026, the paper does not present final empirical findings. Instead, the expected result is a tested conceptual framework that identifies which dimensions of local service provision (care, health, transport) are most relevant to the interaction between decline and ageing.

The research is expected to produce a set of propositions about the conditions under which demographic resilience is more likely to emerge in a metropolitan context. These results will provide a basis for more complex analytical models in later stages of the project. Specifically, the study expects to show that micro-level factors – such as the distance to a health clinic or the perceived reliability of public transport – are more significant for the middle generation than general regional economic indicators.

e) Originality/value

The originality of this work involves proposing a framework that considers individual migration intentions alongside local spatial conditions. This perspective explores how these elements may relate within polycentric metropolitan systems, such as parts of Northern England, the Ruhr area, or the GZM. The study offers a conceptual approach for understanding demographic shifts by focusing on the idea of metropolitan resilience. By doing so, the research seeks to contribute to the academic discussion on how local governance can better understand demographic challenges in a metropolitan setting.



4.71 Where Does Alpha Live? Volatility-Conditioned Timing in European Equities

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Author keywords: Volatility-conditioned strategies**,** European equity markets**,** Return predictability**,** Market efficiency

Abstract:

This study examines whether systematic timing strategies based on simple trend-identification rules can generate abnormal returns when applied to volatility-sorted portfolios of European equities. In particular, the analysis evaluates whether rule-based trading signals derived from moving-average indicators can outperform both a passive buy-and-hold benchmark and a standard risk–return equilibrium framework once portfolios are conditioned on stock volatility. Beyond its implications for asset pricing and market efficiency, the study also relates to a broader issue central to the knowledge economy: how economic agents process large volumes of information and translate dispersed knowledge into effective decisions in highly dynamic environments.

Modern financial markets are among the most information-intensive domains of the contemporary knowledge economy. Asset prices continuously incorporate vast quantities of dispersed information generated by firms, investors, and macroeconomic developments. Market participants must interpret this information and update their expectations amid uncertainty, time pressure, and cognitive constraints. As emphasized in the literature on bounded rationality, decision-makers often rely on simplified rules and heuristics when faced with complex information environments. In financial markets, systematic trading rules can therefore be interpreted not only as investment strategies but also as mechanisms that help investors organize and process information. From this perspective, rule-based timing strategies represent practical decision-support tools that transform complex price dynamics into structured signals that guide investment decisions.

The empirical analysis uses daily data for the constituents of the STOXX Europe 600 index over the period from 2010 to 2024. This dataset provides a broad cross-section of large

and mid-capitalization European firms and covers diverse market conditions, including prolonged bull markets, episodes of heightened volatility, and the disruptions associated with the COVID-19 pandemic and its aftermath. At the beginning of each year, stocks are sorted into portfolios based on their historical volatility, generating volatility-conditioned investment universes that remain fixed for the subsequent 12-month period. This portfolio-level design enables identification of systematic differences in the profitability of timing strategies across volatility regimes while maintaining economic interpretability and consistency with realistic portfolio construction practices.

Within each volatility segment, a family of mechanical trading rules is implemented. These rules rely on moving-average signals to detect whether asset prices display persistent upward or downward trends. When the price of a portfolio exceeds its moving average, the strategy takes a long position; when the price falls below the moving average, the position is reduced or reversed, depending on the specific rule configuration. Several signal horizons are considered to evaluate how trend-identification speed influences performance. Shorter moving-average windows generate faster signals that may capture shorter-term return persistence, whereas longer windows produce smoother signals that react more gradually to changing market conditions.

The profitability of the timing strategies is evaluated using both raw and risk-adjusted performance measures. In addition to simple comparisons with a passive buy-and-hold benchmark, abnormal performance is assessed through regression models based on standard asset-pricing frameworks, allowing the estimation of risk-adjusted alphas while controlling for systematic exposure to common risk factors. The empirical design also includes several robustness checks to assess the stability and economic significance of the results. In particular, the analysis examines whether profitability persists after accounting for realistic transaction costs, whether returns are concentrated in specific subperiods, and how the strategies perform during episodes of market stress.

The empirical findings indicate that the effectiveness of systematic timing rules depends strongly on the volatility characteristics of the underlying assets. The profitability of moving-average strategies is largely concentrated in the highest-volatility portfolios. Within these segments, rule-based strategies generate economically meaningful and statistically significant abnormal returns relative to both the passive benchmark and the equilibrium asset-pricing models considered. The results further suggest that faster trading signals—based on shorter moving-average horizons—tend to deliver the strongest performance improvements, likely because they respond more quickly to changes in price dynamics and are therefore better positioned to exploit episodes of return persistence that arise in turbulent market environments.

Beyond their return performance, the strategies examined in this study also display favorable risk characteristics. In several high-volatility segments, the implementation of timing rules provides improved downside protection relative to passive investing. By reducing market exposure during periods of adverse price movements, these strategies help mitigate drawdowns while maintaining competitive average returns. This



asymmetry between upside participation and downside protection contributes to improved risk-adjusted performance and highlights the potential role of systematic decision rules not only as tools for return enhancement but also as mechanisms for portfolio risk management.

The concentration of abnormal returns in high-volatility portfolios provides insights into the mechanisms that may underlie the success of trend-following strategies. Financial markets require the continuous processing of large volumes of information by heterogeneous agents whose cognitive resources are inherently limited. When investors cannot instantaneously incorporate new information into prices, adjustments may occur gradually, creating temporary patterns in price dynamics. In such contexts, simple rule-based systems may help identify signals emerging from the collective processing of information by market participants. These findings resonate with broader debates in the knowledge economy concerning how individuals and organizations cope with informational complexity and how algorithmic or rule-based frameworks can complement human decision-making.

Overall, the study contributes to the literature by providing new evidence on volatility-conditioned timing strategies across a broad European equity universe and offering insights into the role of rule-based decision tools in information-rich economic environments. By highlighting the conditions under which systematic rules can enhance portfolio performance, the results contribute to ongoing discussions about bounded rationality, market efficiency, and the mechanisms through which knowledge is transformed into economic action in contemporary financial systems.



4.72 Women in leadership and the social representations of women´s performance in leadership roles

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Author keywords: Female leadership; Social representations; Gender equality; Stereotypes; Social perceptions

Abstract:

This article aims to analyse the social representations regarding the performance of leadership roles by women, based on data collected through a questionnaire survey applied to the general public. Female leadership has gained increasing relevance in recent decades, raising debates around gender equality, managerial competencies, and social perceptions related to power and authority exercised by women. Despite legal and institutional progress, stereotypes and inequalities persist, influencing how female leadership is evaluated and recognized in society.

Methodology : The study adopted a quantitative approach, relying on a significant sample of participants who responded to questions related to leadership attributes, comparisons between male and female leaders, and beliefs about the role of women in managerial positions. This research contributes to a critical reflection on the challenges women face in leadership roles and to the development of more equitable and inclusive organizational policies and practices.The present study aimed to analyze the social representations of the general public regarding the performance of leadership roles by women, based on data collected through a survey. The results revealed the persistence of stereotypical perceptions about female leadership, despite a progressive trend toward valuing gender equality in the exercise of managerial roles. Most participants acknowledged the existence of gender stereotypes in the context of leadership, although a considerable proportion argued that performance does not necessarily vary according to the sex of the leader. This duality reflects a society in transition, where the discourse of equality coexists with deeply rooted traditional representations. The association of leadership with traits considered masculine (authority, assertiveness, rationality) remains dominant, with 76% of respondents identifying the male profile as more closely associated with leadership, compared to only 24% attributing it to the female profile. Additionally, female leaders were frequently associated with traits such as sensitivity, active listening, and receptiveness, which, although potentially valued in collaborative contexts, are still perceived by some as incompatible with traditional leadership models. Reliability and correlation analyses further revealed consistency among certain stereotypes and the way they interconnect, contributing to the symbolic reproduction of inequalities. The findings point to the need to continue investing in the deconstruction of gender stereotypes, namely through training, the promotion of diverse and inclusive

leadership models, and increased visibility of women in prominent positions. Leadership should not be conceived as an innate attribute of a particular gender, but rather as a competence developed within equitable social and professional contexts. This study not only contributes to a better understanding of social perceptions regarding female leadership, but also highlights the challenges that still persist on the path toward effective equality. Combating gender inequality in leadership positions requires coordinated action involving institutions, organizations, media, and citizens, within a framework of sustained cultural transformation.

