

Abstract Book of

ICEMSS2026 & EDUINNNOV2026

August 14-16, 2026

Qingdao, China



SciencePC
Science Publishing Group

Abstract Book of

ICEMSS2026 & EDUINNOV2026

August 14-16, 2026, Qingdao, China

Published by
Science Publishing Group
1 Rockefeller Plaza, 10th and 11th Floors,
New York, NY 10020 U.S.A.

All abstracts in the abstract book are published under the Creative Commons Attribution 4.0 International (CC BY 4.0) License. This license allows readers to copy and redistribute the material in any medium or format, and to remix, transform, or build upon the material, including for commercial use, providing the original author is credited. To view a copy of this license, visit

<https://creativecommons.org/licenses/by/4.0/>

Copyright on any open access abstract published by Science Publishing Group is retained by the author(s). Authors grant Science Publishing Group a license to publish the abstract and identify itself as the original publisher. Authors also grant any third party the right to use the abstract freely as long as its original authors, citation details and publisher are identified.



ISBN: 979-8-88599-154-4

Full abstract book available online at
<http://sciencepublishinggroup.com/ISBN/979-8-88599-154-4>

Preface

Abstract Book of ICEMSS2026 & EDUINNOV2026 is composed of the abstracts of the 2026 11th International Conference on Economics, Management and Social Sciences (ICEMSS2026) and 2026 11th International Conference on Education and Innovation (EDUINNOV2026). According to the similarity among the topics of ICEMSS2026 and EDUINNOV2026, ICEMSS2026 is held in conjunction with EDUINNOV2026 on August 14-16, 2026.

ICEMSS2026 and EDUINNOV2026 serve as an optimal platform for specialists, scholars and researchers in the field related to economics, management, social sciences, education and innovation to facilitate academic communications and exchange ideas. These abstracts demonstrate the richness of interdisciplinary approaches, theories, models and applied research presented.

Major themes of the conferences include:

Economics: Microeconomics, Neoclassical Economics, Classical Political Economy, Production, Cost, Efficiency, Supply and Demand, Welfare, Unemployment, Inflation and Monetary Policy, Fiscal Policy, etc.

Management: Management: Human Resources, Advertising Management, Business Management, Engineering Management, Information Management, Enterprise Management, Intellectual Capital Management, Management in Tourism, Energy Management, Leadership Management, etc.

Social Sciences: Ethics, Psychology, Social Welfare, Media Studies, Culture Heritage, Behavioral Science, Population Studies, Behavior Genetics, Applied Anthropology, Humanities, Education, etc.

Education: Higher Education, Secondary Education, Elementary Education, Preschool Education, Vocational Education, Curriculum and Teaching, Educational Psychology, Educational Technology, Educational Theory, Teaching Management, Social Education, etc.

Innovation: Creativity, Institutional Innovation, Cultural Innovation, Technological Innovation, Financial Innovation, Strategic Innovation, Organizational Innovation, Scientific Innovation, Educational Innovation, Innovation Research, Business Innovation, Political Innovation, etc.

We thank all authors for their scientific contribution to ICEMSS2026 and EDUINNOV2026 and look forward to having the opportunity to showcase and disseminate your research.

Sincerely,

ICEMSS2026 and EDUINNOV2026 Organizing Committees

Table of Contents

Affective Pathways of Digitally Mediated Social Influence: Interactivity and Impulse-driven Behavior	1
Rongteng (Renata) Zhang, Eng Junn Tiu	
Research on the Impact of Negative Online Word-of-Mouth Types on Purchase Intention in Virtual Brand Communities	2
Shijun Xing	
Association Between Perceived Social Support and Mental Well-being Among Chinese Nursing Students: A Cross-sectional Study	3
Yuhong Zhang, Vimala Ramoo, Yan Li, Zhuqing Zhu, Shucen Li	
Technological Internalization and Efficiency-driven Behavior: The Impact Mechanism of AI on the Diversity of Young Workers' Job Search Channels	4
Qingqing Wang	
Data Assetization, Information Asymmetry, and Corporate Investment Efficiency: Evidence from China.....	5
Meng Zhu, Yaoyao Liu	
Intelligent Transformation of Internal Control and Audit in Central Enterprises: Evidence from State Grid.....	6
Xinyu Yu, Yaoyao Liu	
Geopolitical Implications of Digital Technologies in the Modern World	7
Sofia Koroleva	
A Study on the Impact of Public Data Openness on Regional Economic Tail Risk.....	8
Li Tao	
Crack Detection Optimization for False Positives and False Negatives in Faster R-CNN	9
Yuting Wang	
Assessing City-level Carbon Reduction Performance Under China's Emissions Trading Scheme: A Rank Confidence Set Approach.....	10
Min Zhu	
The Impact of High-speed Rail Connectivity on Regional Economic Tail Risks	11
Jingwen Qin	

Research on the Macroeconomic Effects of LPR Reform and the Path of Interest Rate Liberalization Reform	12
Wenxin Zang	
Generative Artificial Intelligence Use and Employees' Innovative Behavior: A Cross-level Moderated Mediation Model.....	13
Haoxiang Sun, Jianwei Cao	
Opportunities and Challenges in AI-assisted TCSL: A Vygotskian Perspective	14
Shiyang Liu	
Asymmetric Effects of Green Credit Policies on Green Innovation in Heavily Polluting Firms.....	15
Keou Wang	
Marketization of Data Factors and Urban Economic Resilience: A Quasi-Natural Experiment Based on the Establishment of Data Trading Platforms.....	16
Yali Zhang	
Breaking the Fertility Dilemma: How Do Flexible Work Arrangements Affect the Fertility Intention of Women of Childbearing Age	17
Xixi Zhang, Run Wang	
Strategic HRM for Organizational Resilience in Nigerian Healthcare.....	18
Godspower Ibe, Chidinma Madubuobi, Victor Kuzevanov	
How Investor Position Influences Innovation: A Complex Network Perspective.....	20
Tianrui Su, Jin Xu, Peihan Liu, Jianjun Li	
Local Food Networks in West Africa: Resilience in the Context of Global Shocks	21
Edoudzi Komla Dotse, Valentine Ikechukwu Onah, Victor Ya. Kuzevanov	
A Study on the Influence of Social Exclusion on Algorithm-controlled Product Preference	22
Hanyue Lei	
Fostering Local Development or Extraction: The Local Economic Effects of Chinese Aid in Sub-Saharan Africa	23
Yuqing Li	
Global Geopolitical Conflicts, Network Connectivity, and Exchange Rate Risk Spillovers	24
Yujing Yang, Wenli Ding	

Meaning Construction and Emotional Buffering: The Mediating Mechanism of Reemployment Motivation on Thriving at Work Among Silver Workers	25
Chen Lanlan, Wang Yanling, Dai Yufang, Zhou Nanjin, Chen Nannan	
Artificial Intelligence for Government Process Management in Brazil: A Design Science Approach to Smart Public Administration	26
Andrea Souza, Ernani Leite	
Research on the Influence of the Inconsistency of Internal and External Corporate Social Responsibility on Employees' Job Crafting	27
Gongxin Wu	
Reproducing Community-based Eldercare Service Spaces Under Population Ageing: A Case Study of Ruijin Beicun Community in Nanjing, China	28
Ziyu Zhou, Tianke Zhu	
The Path of Language-meaning Integration in the International Publicity Translation of Hui Culture	29
Tang Lingling	
Regional Transfers and Tax Effort: A Nash Equilibrium in Fiscal Federalism	30
Bilin Neyapti	
Practical Challenges and Optimization Strategies for Enhancing Preschool Teachers' Literacy in Intelligent Applications: A Case Study of Z Kindergarten in Yinchuan	31
Yuanyuan Li, Shan He	
Individualization of Learning Based on Intercultural Competence: Training Managers with the Use of Artificial Intelligence	33
Karolina Mazurowska, Radoslaw Stanczewski, Dorota Marciniak, Joanna Grzybek, Jacek Marciniak, Krzysztof Dyszkiewicz, Marcin Szczepański	
Email Correspondence in Russian Academia: Emotional vs Artificial Intelligence	35
Tatiana Martseva, Svetlana Suchkova	
Sketch Thinking and Volumetric Deconstruction: An Interest-oriented Innovative Practice in Small-scale Architectural Design Course	36
Wang Yiyang	
Prospective Prediction of Low Self-reported Academic Performance Among Adolescents Using Explainable Machine Learning: A Multi-school Longitudinal Study	37
Liyan Zhao, Dongping Li	

AI-driven Adaptive EdTech and Interactive Storytelling	39
--	----

Shirley Cheung

Affective Pathways of Digitally Mediated Social Influence: Interactivity and Impulse-driven Behavior

Rongteng (Renata) Zhang^{*}, Eng Junn Tiu

School of Economics and Management, Xiamen University Malaysia, Sepang, Malaysia

Email address:

rongteng.zhang@xmu.edu.my (Rongteng (Renata) Zhang), ecm2304139@xmu.edu.my (Eng Junn Tiu)

^{*}Corresponding author

Abstract

Digital platforms increasingly rely on interactive features and socially embedded cues to shape user engagement, yet limited research explains the affective mechanisms through which digitally mediated social influence translates into immediate behavioral responses. Drawing on the Stimulus–Organism–Response (S–O–R) framework, this study examines how platform interactivity and digitally mediated social influence function as distinct stimuli that evoke users' emotional responses, specifically arousal and pleasure, and how these affective states subsequently shape impulse-driven behavior. Survey data from 250 Generation Z users of interactive digital platforms were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that interactivity and social influence activate differentiated affective pathways. Interactivity exhibits a stronger association with pleasure, reflecting enhanced enjoyment and immersive engagement with digital systems, whereas digitally mediated social influence demonstrates a stronger association with arousal, capturing heightened emotional activation triggered by social cues. Both affective responses significantly predict impulse-driven behavior, with pleasure emerging as the stronger driver. Mediation analyses further confirm that arousal and pleasure serve as key mechanisms linking digital stimuli to behavioral outcomes. This study contributes to digital technology management by foregrounding affective processes as central mechanisms in digitally mediated interaction and by distinguishing the emotional pathways through which technological and social features shape behavior.

Keywords

Digitally Mediated Interaction, Platform Interactivity, Social Influence in Information Systems, Affective Responses, Human–technology Interaction, Impulse-driven Behavior

Research on the Impact of Negative Online Word-of-Mouth Types on Purchase Intention in Virtual Brand Communities

Shijun Xing*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

X15969687528@163.com (Shijun Xing)

*Corresponding author

Abstract

With the popularization of the internet and the rise of virtual brand communities, online word-of-mouth has become an important source of information for consumers' pre-purchase information search, among which negative online word-of-mouth has a particularly significant impact on purchase decisions. Existing studies have mostly focused on the overall effect of negative word-of-mouth, while paying insufficient attention to the differential effects of different content types of negative word-of-mouth on consumers' purchase intentions through internal psychological mechanisms. Based on the communication persuasion theory and the SOR theory, this study constructs a moderated mediation model to explore the impact of negative online word-of-mouth types (objective description vs. subjective evaluation) on consumers' purchase intentions, introducing perceived risk as a mediator and source credibility as a moderator. The experimental products were determined through a pre-experiment and the validity of the experimental materials was tested. A scenario experiment method was adopted for the formal experiment, and a total of 240 valid questionnaires were collected. The results show that: (1) Compared with subjective evaluation negative online word-of-mouth, objective description negative online word-of-mouth has a stronger negative impact on consumers' purchase intention; (2) Perceived risk mediates the relationship between negative online word-of-mouth types and purchase intention, that is, objective description negative word-of-mouth inhibits purchase intention by triggering stronger perceived risk; (3) Source credibility moderates the above mediating effect. When source credibility is high, the positive effect of objective description negative online word-of-mouth on perceived risk and its negative effect on purchase intention are both strengthened. This study deepens the theoretical framework of negative online word-of-mouth typology research, extends the application of communication persuasion theory and SOR theory to the context of virtual brand communities, and provides practical implications for enterprises to optimize their negative word-of-mouth response strategies and improve community operation efficiency.

Keywords

Virtual Brand Community, Negative Online Word-of-Mouth, Purchase Intention, Perceived Risk, Source Credibility

Association Between Perceived Social Support and Mental Well-being Among Chinese Nursing Students: A Cross-sectional Study

Yuhong Zhang^{1,2}, Vimala Ramoo^{1,*}, Yan Li¹, Zhuqing Zhu², Shucen Li²

¹Faculty of Health Sciences, Nursing and Education, MAHSA University, Bandar Saujana Putra, Malaysia

²School of Nursing, JiangSu Food & Pharmaceutical Science College, Huai'an, China

Email address:

363093102@qq.com (Yuhong Zhang), vimala@mahsa.edu.my (Vimala Ramoo)

*Corresponding author

Abstract

Background: Nursing students are exposed to substantial academic and clinical stressors, which may adversely affect their mental well-being. Perceived social support has been widely recognized as an important psychosocial resource that contributes to positive mental health outcomes by buffering stress and enhancing coping capacity. Examining the relationship between perceived social support and mental well-being among nursing students may help inform supportive strategies within nursing education. **Objective:** This study aimed to examine PSS and MWB levels among Chinese nursing students and the association between these two variables. **Methods:** A cross-sectional survey was carried out on 612 nursing students from a higher vocational college in eastern China in March 2025. **Results:** The mean scores of PSS and MWB were 47.98 ± 10.69 and 43.97 ± 14.19 , respectively. PSS was positively correlated with MWB ($r = 0.347$, $p < 0.001$). Simple linear regression analysis revealed a significant association between PSS and MWB ($B = 0.461$, 95% CI [0.362, 0.560], $p < 0.001$). After adjusting for demographic and health-related factors, PSS remained significantly positively associated with MWB ($\beta = 0.317$, $p < 0.001$), with the addition of PSS increasing the explained variance by 9.8%. **Conclusion:** PSS was independently associated with better MWB among Chinese nursing students. Higher education institutions may consider strengthening social support resources as a potential strategy to support nursing students' mental well-being.

Keywords

Nursing Students, Perceived Social Support, Mental Well-being, Cross-sectional Study

Technological Internalization and Efficiency-driven Behavior: The Impact Mechanism of AI on the Diversity of Young Workers' Job Search Channels

Qingqing Wang*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

wqq250928@163.com (Qingqing Wang)

*Corresponding author

Abstract

With the exponential development of artificial intelligence (AI) technology, its core impact on the global labor market has penetrated from the macro employment structure to the micro job search. This technological dividend will bring new changes to the choice and combination of job search channels for young workers. In addition, due to the individual differences in the cognition and efficiency drive of young workers, the internalization of technology will also have different impacts on their job search methods. Based on data from the Chinese General Social Survey (CGSS) from 2015 to 2021, this study empirically analyzes the impact of artificial intelligence development on the choice of job search channels and the richness of job search channel combinations of young workers. The results show that the level of AI development significantly promotes young workers to adopt more diversified channel combinations. The mechanism analysis shows that AI technology enhances the ability of workers to obtain job search information by increasing the strength of social networks. At the same time, the study identifies a notable inverse relationship between technology attention and application: the higher the level of AI development, the lower the active attention to technology, yet the higher the channel use efficiency. This shift is attributed to a transition from “cognition-driven” to “efficiency-driven” behavior after technology has been deeply internalized. In addition, the impact effects exhibit significant heterogeneity, with AI technology demonstrating a more pronounced effect on the diversity of job search channel combinations among young workers in western regions, those with higher education levels, and those with work experience. This study provides a new perspective for understanding how AI technology reshapes job search behavior through social capital and cognitive pathways, and has implications for the formulation of differentiated employment promotion policies.

Keywords

Artificial Intelligence, Young Workers, Job Search, Technological Internalization, Active Attention Level, Social Network Intensity

Data Assetization, Information Asymmetry, and Corporate Investment Efficiency: Evidence from China

Meng Zhu, Yaoyao Liu*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

2192033851@qq.com (Meng Zhu), liuyaoyao@upc.edu.cn (Yaoyao Liu)

*Corresponding author

Abstract

As global digital transformation accelerates and data emerges as a key production factor, the process of data assetization has drawn growing scholarly attention for its impact on corporate investment behavior and efficiency. However, the mechanisms through which data assetization affects investment efficiency remain underexplored, especially the mediating role of information asymmetry and the heterogeneous effects across ownership, industry, and region. To fill this gap, we employ a two-way fixed-effects model, mediation tests, and heterogeneity analysis based on a sample of Chinese A-share listed firms from 2013 to 2023. We find that data assetization significantly improves corporate investment efficiency by mitigating information asymmetry and thereby reducing inefficient investment, including both over-investment and under-investment. Mediation analysis confirms that the reduction of information asymmetry is a key channel through which data assetization enhances investment efficiency. This positive effect is more pronounced in non-state-owned enterprises, technology-intensive industries, and the eastern region of China, where market mechanisms and information environments are more favorable to data-driven decision-making. A series of robustness checks, including alternative measures of investment efficiency, sample restrictions, and endogeneity treatments such as lagged variables and instrumental variable estimation, confirm the reliability of our results. This study enriches the literature on the economic consequences of data assetization by revealing its value-enhancing role in corporate investment decisions. It also provides practical implications including that firms should strengthen data governance to reduce information asymmetry, governments should improve data factor market policies and promote differentiated data opening, and policymakers should support balanced regional development to fully leverage data assets for efficient investment.

Keywords

Data Assetization, Investment Efficiency, Information Asymmetry, Corporate Investment

Intelligent Transformation of Internal Control and Audit in Central Enterprises: Evidence from State Grid

Xinyu Yu, Yaoyao Liu*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

13181660513@163.com (Xinyu Yu), liuyaoyao@upc.edu.cn (Yaoyao Liu)

*Corresponding author

Abstract

Driven by digital economy advancement and state-owned enterprise reform, artificial intelligence has emerged as a core driver for renovating the internal control and audit systems of central state-owned enterprises. Conventional internal control frameworks are plagued by slow risk response and unsatisfactory audit efficiency, urging enterprises to resolve governance challenges via digital and intelligent transformation. As a benchmark of digital and intelligent governance among energy central enterprises, State Grid boasts typical research value in its practice of empowering internal control and audit with artificial intelligence. Taking State Grid as the research subject, this paper explores the intelligent transformation path of internal control and the impact mechanism of artificial intelligence on audit effectiveness. By sorting out the construction practices of intelligent internal control platforms, AI audit models and penetrating supervision systems, it analyzes the inherent mechanism of technology-driven corporate governance. Research shows that firstly, artificial intelligence effectively transforms internal control from ex-post compliance supervision to full-process dynamic management, greatly improving the accuracy and timeliness of risk identification. Secondly, intelligent audit upgrades traditional sampling inspection to full-coverage intelligent screening, which significantly cuts labor costs and enhances the identification efficiency of audit doubtful items. Thirdly, the data-driven supervision system establishes a management mechanism integrating risk early warning and evidence closed-loop, and strengthens the penetration of internal control supervision. The study also identifies prevailing obstacles including incomplete data infrastructure and shortage of interdisciplinary talents, and puts forward targeted improvement strategies correspondingly. In summary, State Grid's practical experience offers valuable references for peer central enterprises to advance digital and intelligent governance. It also sets a solid benchmark for applying AI to corporate management and promoting interdisciplinary integration.

Keywords

Artificial Intelligence, Internal Control, Internal Audit, Penetrating Supervision, Digital and Intelligent Transformation, Governance Effectiveness

Geopolitical Implications of Digital Technologies in the Modern World

Sofia Koroleva*

Institute of International Relations and Social and Political Sciences, Moscow State Linguistic University, Moscow, Russia

Email address:

koroleva.sofiko@gmail.com (Sofia Koroleva)

*Corresponding author

Abstract

Digital technologies are shaping a new era of geopolitics, where technological supremacy is becoming a key factor of global power alongside traditional military and economic resources. Contemporary cybergeopolitics is characterized by the technological confrontation between the United States and China, the formation of digital sovereignty among leading states, fragmentation of the global internet, and the growth of digital colonialism. Russia ranks among the top three countries with full digital sovereignty together with the United States and China, which confirms its position in the new geopolitical reality. Digital sovereignty, meaning the state's ability to provide itself with all digital solutions from applications to infrastructure, is becoming a strategic priority for leading powers. The Central Asian region is becoming an object of digital colonization, where tech corporations and major powers divide influence between themselves. BRICS is developing new directions for cooperation in the field of open digital technologies and a concept of digital trust to counter technological dominance. Technological wars are becoming new trade wars, blurring the boundaries between economy and security. Big tech companies are turning into "private governments" that influence the lives of millions of people. Access to modern technologies directly affects the ability to project power and the buildup of a country's political and military strength. The global internet is transforming into a collection of isolated national segments, forming the phenomenon of "splinternet." India, Brazil, and South Korea are introducing mandatory data storage within their countries. Nations are blocking foreign services. The future of the internet is a world of "digital islands," where global connectivity will give way to national rules. Excessive fragmentation may slow down the development of global science, business, and education. Tech corporations practice digital colonialism. Countries in Africa and South America are almost completely excluded from the process of global Artificial Intelligence development. The gap between developed and developing countries is growing, and AI resources are distributed unevenly. AI has become not only a technological resource but also a strategic tool affecting power distribution. Technological blocs are forming — American, Chinese, and European. Geopolitical competition is shifting to the digital sphere, where victory is determined by technological supremacy, digital sovereignty, and the ability to shape international standards.

Keywords

Geopolitics, Digital Technologies, Digital Sovereignty, Technological Supremacy, Digital Colonialism, Splinternet, Artificial Intelligence

A Study on the Impact of Public Data Openness on Regional Economic Tail Risk

Li Tao*

Applied Economics, China University of Petroleum (East China), Qingdao, China

Email address:

1185305200@qq.com (Li Tao)

*Corresponding author

Abstract

Against the backdrop of accelerating digital transformation and increasingly interconnected regional economies, the cross-city resonance of tail risks under extreme shocks has become a major threat to regional economic stability. Whether public data openness, as a core institutional arrangement for the market-based allocation of data as a factor of production, can curb such tail risk resonance is a frontier issue at the intersection of digital governance and risk management. Taking 287 prefecture-level cities in China from 2010 to 2022 as the research sample and treating the staggered launch of public data platforms as a quasi-natural experiment, this paper empirically investigates the impact and mechanisms of public data openness on regional economic tail risk resonance. The findings reveal that public data openness significantly curbs this resonance, and this conclusion holds after a series of robustness checks. Heterogeneity analysis shows that the inhibitory effect is more pronounced in non-mountainous cities, non-resource-based cities, central cities, and regions with low market segmentation. Mechanism tests demonstrate that public data openness mitigates tail risk resonance mainly through two pathways: enhancing fiscal transparency and regulating digital finance development while curbing its excessive bubble tendency. The latter “de-bubbling” pathway constitutes a unique mechanism discovery that departs from conventional understanding. Further spatial analysis indicates that public data openness exerts a significant local risk governance effect but yields no statistically significant positive spatial spillover. This paper provides empirical evidence and policy implications for effectively alleviating regional economic tail risks, optimizing public data openness policy design, and advancing cross-regional collaborative governance in the new development stage.

Keywords

Public Data Openness, Regional Economies, Tail Risk, Resonance

Crack Detection Optimization for False Positives and False Negatives in Faster R-CNN

Yuting Wang*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

18513577236@163.com (Yuting Wang)

*Corresponding author

Abstract

Pavement crack detection is a critical procedure for the preventive maintenance of road infrastructure. However, factors such as illumination variations, background clutter, and diverse crack morphologies in real-world complex environments lead to high false positive and false negative rates in existing deep learning models, severely compromising the reliability of maintenance decisions. To address the problem of insufficient multi-scale feature extraction capability, this study takes Faster R-CNN as the baseline model and proposes an optimization method that integrates the Bidirectional Feature Pyramid Network (BiFPN) with the Squeeze-and-Excitation (SE) channel attention mechanism. Experimental results on a public crack dataset through ablation and comparative studies demonstrate that, compared with the baseline, the proposed BiFPN+SE model achieves a relative improvement of 26.9% in Precision and 15.4% in F1-score while maintaining a Recall of 71.10%. Meanwhile, the mAP@0.5 reaches 0.6499, outperforming the baseline's 0.6321. The proposed method significantly reduces false positives, better meeting the practical engineering requirement for low false alarm rates. Therefore, this study provides a highly reliable optimization solution for automated crack detection in complex environments, contributing significant value to improving the intelligence level and economic benefits of highway maintenance.

Keywords

Crack Detection, Faster R-CNN, Complex Environment, BiFPN, SE Attention Mechanism, Highway Maintenance

Assessing City-level Carbon Reduction Performance Under China's Emissions Trading Scheme: A Rank Confidence Set Approach

Min Zhu*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

zhumin_512@163.com (Min Zhu)

*Corresponding author

Abstract

Under China's "Dual-Carbon" goals, scientifically evaluating the effectiveness of carbon emissions trading (ETS) pilot policies is crucial for the development of a unified national carbon market. Existing studies typically rank pilot cities based on point estimates of policy effects, often overlooking the uncertainty arising from estimation errors and multiple comparisons, which can lead to biased policy evaluations. To quantify this statistical uncertainty in city ranking, this study utilizes panel data from 282 prefecture-level cities in China. First, the city-level policy effects of ETS pilots are estimated using a multi-period difference-in-differences model, along with the corresponding standard errors for each pilot city. Building on these estimates, we apply the Rank Confidence Set methodology to construct 95% confidence sets for both individual cities and the full sample, enabling rigorous statistical inference of ranking uncertainty. The results indicate that joint confidence sets adjusted for multiple testing effectively control the overall error rate in rank inference and substantially enhance the statistical reliability of city rankings. Furthermore, the stepwise procedure used to construct refined confidence sets narrows the ranking intervals, improving the precision of rank identification. Notably, several pilot cities that appear at the top in point-estimate rankings exhibit confidence intervals spanning multiple ranking tiers, suggesting that differences in emission reduction performance between cities are not statistically significant. These findings demonstrate that reliance on point estimates alone may exaggerate perceived differences among cities, whereas the Rank Confidence Set approach provides a statistically robust measure of uncertainty in policy evaluation. This methodology offers a valuable tool for assessing ETS pilot performance and supports evidence-based design of regional carbon reduction policies.

Keywords

Emissions Trading Scheme, Rank Confidence Set, Statistical Uncertainty, Ranking Inference

The Impact of High-speed Rail Connectivity on Regional Economic Tail Risks

Jingwen Qin*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

qjwbbx@163.com (Jingwen Qin)

*Corresponding author

Abstract

The development of high-speed rail (HSR) networks has accelerated the cross-regional flow of labor and other factors, exerting a significant impact on regional economic tail risks. Using a sample of 283 prefecture-level cities in China from 2003 to 2019, this paper constructs a city-pair panel dataset and employs a time-varying difference-in-differences (DID) approach to empirically examine the impact of HSR connectivity on inter-city economic tail risks and its underlying mechanisms. The findings show that HSR connectivity significantly reduces the level of economic tail risks between cities. This result remains robust after addressing endogeneity concerns through instrumental variable regression and PSM-DID, as well as conducting a series of robustness checks including alternative dependent variables and excluding the influence of other transportation infrastructure. Mechanism analysis reveals that HSR connectivity mainly reduces regional economic tail risks by promoting labor mobility, knowledge flows, capital flows, and widening industrial structure differences. Further analysis indicates that the mitigating effect of HSR connectivity on economic tail risks is more pronounced among city pairs with similar industrial structures, smaller market segmentation gaps, larger fiscal expenditures, and between peripheral cities. Therefore, while advancing HSR connectivity, it is essential to fully leverage its risk diversification function, rationally plan HSR networks, and effectively strengthen the prevention and control of regional economic tail risks.

Keywords

High-speed Rail Connectivity, Regional Economic Tail Risk, Factor Flows, Industrial Structure Difference, Time-varying DID

Research on the Macroeconomic Effects of LPR Reform and the Path of Interest Rate Liberalization Reform

Wenxin Zang*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

zang_wenxin1126@163.com (Wenxin Zang)

*Corresponding author

Abstract

Interest rate liberalization lies at the core of China's financial reform. As a key measure to break the dual-track interest rate system and improve monetary policy transmission, the Loan Prime Rate (LPR) reform has driven the in-depth development of domestic interest rate liberalization. However, the LPR policy still faces deficiencies in macroeconomic regulation, regional implementation and policy coordination. It is therefore crucial to evaluate its macroeconomic effects and explore optimized paths for interest rate liberalization. This paper aims to examine the dynamic macroeconomic impacts of the LPR reform, analyze its internal mechanisms and regional heterogeneity, and propose practical paths for further interest rate liberalization. Taking the 2019 LPR pricing mechanism reform as a quasi-natural experiment, this study adopts the theories of financial repression, financial deepening and interest rate transmission. Based on the quarterly panel data of 31 provincial-level regions in China from Q1 2017 to Q3 2025, this paper conducts empirical tests by using the Difference-in-Differences model, mediating effect model and moderating effect model. The results show that the LPR reform exerts a remarkable counter-cyclical effect, which effectively boosts economic growth and stabilizes prices. Corporate financing costs act as a vital mediating variable between the reform and macroeconomic performance. Macroeconomic fluctuations and regional interest rate liberalization levels significantly moderate the policy effects. In addition, obvious regional heterogeneity exists: the policy impact is much stronger in central and western regions than in eastern regions. Accordingly, this paper suggests establishing a differentiated regional interest rate transmission mechanism, improving the linkage between LPR and deposit rates, strengthening multi-policy coordination and optimizing the LPR formation mechanism to steadily advance China's interest rate liberalization.

Keywords

LPR Reform, Interest Rate Liberalization, Macroeconomic Effect, Regional Heterogeneity, Interest Rate Transmission

Generative Artificial Intelligence Use and Employees' Innovative Behavior: A Cross-level Moderated Mediation Model

Haoxiang Sun, Jianwei Cao*

School of Business, North Minzu University, Yinchuan, China

Email address:

jwcao@nmu.edu.cn (Jianwei Cao)

*Corresponding author

Abstract

With the growing adoption of generative artificial intelligence (AI) tools (e.g., ChatGPT and DeepSeek) in the workplace, understanding how generative AI use can be converted into employees' innovative behavior has become an important topic in organizational behavior and human resource management. Drawing on conservation of resources theory, this study develops a cross-level moderated mediation model to explain the underlying mechanism and boundary condition through which generative AI use relates to innovative behavior. Data was collected via a two-wave matched survey and tested using multilevel structural equation modeling. The results show that generative AI use is positively associated with employees' innovative behavior. Job autonomy partially mediates this relationship, indicating that generative AI use enhances employees' perceived autonomy, which in turn facilitates innovation. Moreover, transformational leadership strengthens the indirect effect of generative AI use on innovative behavior via job autonomy. These findings advance research on the workplace consequences of generative AI and offer practical implications for organizations seeking to stimulate innovation by guiding employees' effective use of generative AI.

Keywords

Conservation of Resources Theory, Generative AI Use, Innovative Behavior, Job Autonomy, Transformational Leadership

Opportunities and Challenges in AI-assisted TCSL: A Vygotskian Perspective

Shiyang Liu*

School of Communication, Tianjin Foreign Studies University, Tianjin, China

Email address:

lsy20230710@163.com (Shiyang Liu)

*Corresponding author

Abstract

The rapid development of artificial intelligence technologies, represented by large language models and automatic speech recognition, is profoundly reshaping the landscape of language education. This paper first attempts to review the practical applications of AI-empowered language teaching and explore the different forms through which AI can be applied to teaching Chinese as a second language. Then draws on Vygotsky's sociocultural theory to argue that mediational tools can help learners improve their abilities within the Zone of Proximal Development. From this theoretical perspective, artificial intelligence functions as an important mediational medium, capable of providing dynamic and personalized learning approaches. It can assist learners in completing tasks that are slightly beyond their current level of independent ability, thereby enabling them to gradually internalize new knowledge. Viewed in light of the Zone of Proximal Development, AI can dynamically adjust learning intensity according to learners' proficiency levels. This can effectively address long-standing challenges in teaching Chinese as a second language, such as the high cost of acquiring Chinese characters, the difficulty of mastering tonal pronunciation, and the lack of authentic communicative input outside the classroom. However, this paper also argues that the current reliance on AI tools in second language education still faces practical difficulties. These are mainly reflected in three areas: AI's insufficient accuracy in interpreting cultural nuances and contextual meaning; students' tendency to become overly dependent on tools, leading to a decline in independent critical thinking; and potential risks to the privacy and security of educational data. Vygotsky's sociocultural theory emphasizes social interaction. Therefore, at the present stage, AI can only serve as a mediational tool, while teachers remain the central agents in guiding interaction. This paper argues that, in the process of promoting Chinese as a second language, a blended teaching model characterized by teacher-led interaction and technology-enhanced learning remains the most effective learning model at present.

Keywords

Artificial Intelligence, Chinese as a Second Language, Sociocultural Theory, Zone of Proximal Development, Blended Learning

Asymmetric Effects of Green Credit Policies on Green Innovation in Heavily Polluting Firms

Keou Wang*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

wangkoye@163.com (Keou Wang)

*Corresponding author

Abstract

Green finance acts as a core driver for enterprises to advance green innovation and achieve green development. While existing studies mainly focus on the overall relationship between green finance and green innovation, they overlook structural changes in green innovation across different fields. Using the International Patent Classification Green List, this paper collects and sorts green patent data of China's A-share listed companies, and divides green innovation into two types: source control and end-of-pipe treatment. Regarding the implementation of the Green Credit Guidelines in 2012 as a quasi-natural experiment, this study employs the difference-in-differences method to investigate the asymmetric effects of green credit policies on the two innovation categories. The empirical outcomes confirm that the policies generate obviously different impacts on heavily polluting enterprises, creating a clear gap between end-of-pipe treatment innovation and source control innovation. Mechanism analysis shows that tightened formal credit supply and higher financing costs form distinct transmission paths for the two types of green innovation. This asymmetric effect turns out to be more significant among non-state-owned enterprises, small firms and those trapped in severe financing constraints. By differentiating source control from end-of-pipe green innovation, this research reveals how green credit policies exert asymmetric influences on heavily polluting enterprises, and provides valuable empirical references for improving green financial policies.

Keywords

Green Credit Policy, Green Innovation, Heavily Polluting Firms, Asymmetric Impacts

Marketization of Data Factors and Urban Economic Resilience: A Quasi-Natural Experiment Based on the Establishment of Data Trading Platforms

Yali Zhang*

School of Economics, Jinan University, Guangzhou, China

Email address:

15989449285@163.com (Yali Zhang)

*Corresponding author

Abstract

Improving economic resilience is a key issue for Chinese cities to cope with internal and external risks and achieve high-quality development. This paper takes the establishment of data trading platform as a quasi-natural experiment, based on the panel data of 287 prefecture-level cities in China from 2010 to 2024, and uses the multi-time difference-in-difference model to systematically investigate the impact of data factor marketization on urban economic resilience and its transmission mechanism. The study found that: First, the establishment of the data trading platform has significantly improved the economic resilience of the city, and the policy effect has continued to increase over time. This conclusion is still valid after a series of robustness tests such as PSM-DID, replacement of explained variables, exclusion of other policy disturbances and placebo tests. Secondly, the mechanism test shows that the marketization of data elements empowers economic resilience through three paths: technology agglomeration, talent agglomeration and financial agglomeration, among which the transmission contribution of technology agglomeration effect is the most prominent. Third, the heterogeneity analysis shows that the policy effect is more significant in the eastern region, high administrative level cities and non-resource-based cities, revealing the important regulatory role of institutional environment and initial endowment on policy effect. This study provides policy implications for deepening the market-oriented reform of data elements, releasing the potential of data elements, and enhancing urban economic resilience.

Keywords

Data Factor Marketization, Urban Economic Resilience, Staggered DID, Agglomeration Effects, Heterogeneity Analysis

Breaking the Fertility Dilemma: How Do Flexible Work Arrangements Affect the Fertility Intention of Women of Childbearing Age

Xixi Zhang^{*}, Run Wang

School of Economics and Management, China University of Petroleum (Huadong), Qingdao, China

Email address:

zhangxixizgsy@126.com (Xixi Zhang), wangrun0922@126.com (Run Wang)

^{*}Corresponding author

Abstract

Currently, China's fertility level has continued to decline, and women of childbearing age are confronted with dual pressures from work and childbearing. Enhancing their fertility intention is the key to ensuring the long-term balanced development of the population. Based on a systematic literature review and practical observation of "fertility-friendly positions", this study focuses on female employees of childbearing age, utilizes the 2022 data from the China Family Panel Studies (CFPS), and examines the influence mechanism of flexible work arrangements on fertility intention as well as the moderating effect of intergenerational support. The findings indicate that flexible work arrangements exert a significantly positive impact on women's fertility intention through two parallel paths: first, they alleviate role conflict by reducing perceived work-family time conflict; second, they mitigate the motherhood penalty by improving career development expectations. There are differences in the moderating effects of different types of intergenerational support: economic intergenerational support exerts a complementary effect and strengthens the positive impact of flexible work arrangements, while caregiving intergenerational support produces a substitution effect and weakens this positive relationship. This study reveals the dual-path mechanism by which flexible work arrangements affect fertility intention, and provides a theoretical basis and practical implications for supporting women to balance work and family and improving fertility-friendly policies.

Keywords

Flexible Work Arrangements, Fertility Intention, Career Development Expectations, Work-family Conflict

Strategic HRM for Organizational Resilience in Nigerian Healthcare

Godspower Ibe, Chidinma Madubuobi*, Victor Kuzevanov

Department of Management, Baikal State University, Irkutsk, Russia

Email address:

ibegodspowerebuka@gmail.com (Godspower Ibe), chidimadubuobi@yahoo.com (Chidinma Madubuobi), victor.kuzevanov@gmail.com (Victor Kuzevanov)

*Corresponding author

Abstract

Nigeria's healthcare sector has experienced recurrent crises of clinical and administrative staff turnover, burnout, and occupational stress, which undermine service quality and progress toward universal health coverage. In the context of the Sustainable Development Goals (SDG 3 on good health and well-being and SDG 8 on decent work and economic growth), stabilizing the healthcare workforce through strategic human resource management is a prerequisite for Nigeria to meet its 2030 Agenda and build climate-resilient, pandemic-ready health systems. This research aimed to identify the key determinants of job satisfaction, turnover intention, and work-life balance among healthcare workers in Nigerian hospitals, to compare retention practices between public and private facilities, to assess the direct and indirect costs of staff turnover, and to develop an evidence-based, context-adaptive HRM retention model. The study synthesized relevant publications, Nigerian policy documents, health reports from WHO, World Bank, and previous empirical HRM studies in low- and middle-income countries, using human capital theory as the analytical lens. The results showed that private facilities had better retention (annual turnover ~18%) than public hospitals (~38%), due to flexible scheduling, formal dispute-resolution policies, employee assistance programs, and performance-based rewards, whereas public facilities suffered from bureaucratic inertia, underfunding, and unresolved workplace conflicts. A novel Context-Adaptive HRM Retention Model is proposed, integrating wellbeing frameworks, early conflict detection, and performance incentives. When compared with neighboring African countries such as Ghana and Kenya, which have implemented decentralized HRM reforms and achieved 20–25% lower turnover, Nigeria lags significantly. At the same time, Russia's polyclinic management system offers transferable tools such as mandatory psychological support for physicians, career-long mentorship, and regional crisis command centers for staff redeployment. Mutual benefits exist where Nigeria can adapt Russia's structured change management protocols for primary care, while Russia can learn from Nigeria's community health worker models and traditional medicine integration (including herbal medicine). In conclusion, the proposed HRM model provides a cost-effective, management-driven strategy for hospital administrators and policymakers. From a change management perspective, a phased approach is recommended: 1) short-term piloting of the model in selected public and private hospitals (0–12 months), 2) medium-term scaling of wellbeing programs and performance-linked pay (1–3 years), and 3) long-term embedding of HRM metrics into national health accreditation and establishing a Nigeria-Russia exchange fellowship for health managers (3–5 years). Without systematic change management addressing resistance, engaging unions, and building managerial capacity even the best HRM models may fail in Nigeria's complex decentralized health system.

Keywords

SHRM, Leadership, Organizational Resilience, Healthcare, Job Satisfaction, Work-life Balance

How Investor Position Influences Innovation: A Complex Network Perspective

Tianrui Su¹, Jin Xu^{1, 2}, Peihan Liu¹, Jianjun Li^{3, *}

¹School of Economics and Management, Southwest Jiaotong University, Chengdu, China.

²National Engineering Laboratory of Integrated Transportation Big Data Application Technology, Chengdu, China.

³School of Business, East China University of Science and Technology, Shanghai, China.

Email address:

1064574850@qq.com (Tianrui Su), xj_james@163.com (Jin Xu), 1010667191@qq.com (Peihan Liu), ykaii@163.com (Jianjun Li)

*Corresponding author

Abstract

This study abstracts relational constructs into quantifiable network topological metrics, integrates multi-source large-scale venture capital and patent data for longitudinal analysis, and empirically examines, at the micro level, the pathways through which investors' network positions influence firm innovation. By introducing complex network metrics such as node centrality and constructing a syndication network, we quantify the value of major investors' network positions and their coopetition effects at the micro level. Concurrently, we employ patent counts as a measure of innovation performance and construct a patent collaboration network, using network degree and weighted degree to represent the breadth and depth of innovation, respectively, thereby systematically investigating the influence of venture capital network positions on collaboration mechanisms. Our findings reveal that, first, investors' central positions in the network exert a significant and positive effect on the patent output of their portfolio firms. Second, the impact of network position on innovation collaboration strategies is more nuanced: investors' proactive external ties actually suppress the breadth and depth of firm innovation. More critically, the reputation and activity levels of investors' direct neighbors also produce a significant negative effect on the breadth and depth of firm collaboration, suggesting that high-quality partners may induce a relational lock-in effect. Third, the breadth and depth of innovation collaboration serve as key mediating channels through which network position affects innovation output, with the mediating role of collaboration depth being particularly salient. Fourth, these mechanisms are moderated by both internal and external contextual factors: the heterogeneity of syndicate teams significantly amplifies the innovation returns from network position advantages, whereas favorable market conditions weaken the effectiveness of proactive tie-building strategies. Further causal analysis indicates that macro-level innovation policies significantly enhance innovation output, yet their effect primarily operates through direct empowerment rather than through restructuring collaboration networks. This study provides empirical support for bridging social capital theory and innovation research, and offers practical implications for managers in optimizing investment strategies and understanding the emergence and evolution of innovation ecosystems.

Keywords

Innovation Collaboration, Network Position, Collaboration Breadth and Depth, Complex Networks

Local Food Networks in West Africa: Resilience in the Context of Global Shocks

Edoudzi Komla Dotse*, Valentine Ikechukwu Onah, Victor Ya. Kuzevanov

Department of Management and Service, Baikal State University, Irkutsk, Russia

Email address:

dotseedoudzi@gmail.com (Edoudzi Komla Dotse), Onahikechukwu @yandex.ru (Valentine Ikechukwu Onah), victor.kuzevanov@gmail.com (Victor Ya. Kuzevanov)

*Corresponding author

Abstract

The intertwining of climate change, geopolitical instability, post-COVID-19 pandemic consequences, and macroeconomic volatility has exposed the systemic vulnerability of cross-border national supply chains. For West African countries, particularly Togo and Nigeria, diversifying food security through regionalization and adaptive management is becoming a strategic priority. The objective of this work was to assess existing practices and a conceptual model for maintaining the resilience of local food networks, integrating socio-managerial adaptation mechanisms and the prospects of Russian-African cooperation. Data from the FAO, national statistical services of Togo and Nigeria, comparative indicators for West African countries, as well as trade and logistics reports on Russia's interaction with countries in the region were analyzed. Systems analysis and comparative regional assessment methods were applied. Regional markets effectively mitigate global price fluctuations and logistical disruptions. Resilience is ensured not so much by technical solutions as by managerial and social cooperation (flexible procurement, modular storage facilities, distributed leadership, and shared risk allocation). Local communities, mutual aid traditions, as well as women's and youth initiatives play a key role in crisis food distribution. An adaptive framework applicable under conditions of instability is proposed. An important supplement is the Russian experience in building domestic national food supply chains and export routes to Africa. Priority items include wheat, vegetable oils, poultry meat, frozen fish, and mineral fertilizers, which are critically important for the region's agricultural sector. According to 2023–2024 data, Russia's trade turnover with Nigeria exceeds \$1.2 billion, with Togo totals about \$48 million, and with West African countries as a whole reaches \$3.5 billion. Prospects include the creation of joint agro-logistics hubs, the transfer of grain storage technologies, and the development of regional food clusters. The resilience of food systems requires the integration of managerial flexibility, the application of modern change management methods, social solidarity, and international partnerships, including taking into account environmental factors. Russian experience and the deepening of bilateral cooperation create a practical foundation for risk reduction and strengthening the food sovereignty of West Africa.

Keywords

Food System Resilience, Supply Chain Vulnerability, West Africa, Togo, Nigeria, Agro-logistics Hubs, Distributed Leadership, Food Sovereignty

A Study on the Influence of Social Exclusion on Algorithm-controlled Product Preference

Hanyue Lei*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

S24080009@s.upc.edu.cn (Hanyue Lei)

*Corresponding author

Abstract

With the extensive integration of the digital economy, algorithm-controlled products have become widely embedded in consumers' daily lives. Existing research on preferences for algorithm products primarily focuses on technical features or system transparency, largely overlooking the influence of consumers' psychological states and emotional motivations. Social exclusion is a common occurrence that threatens psychological needs and triggers compensatory consumption. Based on the S-O-R model and compensatory consumption theory, this study explores how various forms of social exclusion affect consumers' preferences for algorithm-controlled products and examines the mechanisms underlying these effects. This study primarily utilized the experimental method to validate the theoretical model. The findings reveal that: (1) Compared to being ignored, rejected consumers prefer high-adaptability algorithm products, while ignored consumers prefer low-adaptability algorithm products. (2) The need to belong mediates the relationship between being rejected social exclusion and the preference for high-adaptability products, whereas the need for control mediates the relationship between being ignored social exclusion and the preference for low-adaptability products. (3) Self-acceptance significantly moderates these effects; the aforementioned compensatory mechanisms are only significant among consumers with low self-acceptance. This research extends the theory of social exclusion to the context of human-computer interaction and algorithm consumption. Practically, it provides enterprises with novel marketing strategies based on consumers' psychological needs and helps consumers maintain rationality and psychological well-being in the algorithmic era.

Keywords

Social Exclusion, Algorithm-controlled Products, The Need To Belong, The Need For Control, Self-acceptance

Fostering Local Development or Extraction: The Local Economic Effects of Chinese Aid in Sub-Saharan Africa

Yuqing Li*

Department of Economics, Jinan University, Guangzhou, China

Email address:

18470329607@163.com (Yuqing Li)

*Corresponding author

Abstract

Whether Chinese aid in Sub-Saharan Africa promotes local development or serves extractive purposes remains widely debated. This paper investigates the local economic effects of Chinese aid projects in Sub-Saharan Africa. The empirical strategy exploits the staggered rollout of geocoded Chinese aid projects in a staggered difference-in-differences framework to estimate the effects of these projects on local economic activity. The spatial analysis employs satellite-based nighttime lights data to produce both aggregate and spatially disaggregated assessments across multiple buffer zones around project locations. The analysis reveals that Chinese aid projects significantly increase nighttime light intensity around project locations, pointing to positive subnational development effects. Nighttime light intensity rises with the onset of project implementation, and the effects become more pronounced from the second year onward. Buffer-level estimates further indicate that the effects are spatially heterogeneous, with local responses displaying a clear gradient across spatial scales. The positive effects are stronger in areas with higher spatial frictions, where transport accessibility is poorer and market connections are weaker. These findings remain robust after excluding the immediate area around project locations and accounting for additional local development factors. This paper contributes to the debate over Chinese aid by providing project-level spatial evidence on observable local economic activity in Sub-Saharan Africa.

Keywords

Chinese Aid, Aid Effectiveness, Subnational Development, Spatial Spillovers, Nighttime Light, Sub-saharan Africa

Global Geopolitical Conflicts, Network Connectivity, and Exchange Rate Risk Spillovers

Yujing Yang¹, Wenli Ding^{2, *}

¹Faculty of Geography, Yunnan Normal University, Kunming, China

²School of Economics and Management, Kunming University, Kunming, China

Email address:

yangyujing0112@163.com (Yujing Yang), dingwl2000@163.com (Wenli Ding)

*Corresponding author

Abstract

Global geopolitical conflicts are key drivers of exchange rate risk spillovers. Understanding the relationship between external shocks and exchange rate risks is essential for maintaining the stability of the international financial landscape. Using quarterly panel data for 34 economies from 2008 to 2024, this study employs the TVP-VAR-DY model to construct an exchange rate risk spillover network. From the perspective of network connectivity characteristics, this study explores the effects and mechanisms by which global geopolitical conflicts influence exchange rate risk spillovers. The results show that an increase in global geopolitical conflicts significantly enhances the exchange rate risk spillovers of economies. This effect is more pronounced in advanced economies, export-dependent economies, and economies with higher levels of financial openness. Mechanism analysis indicates that the “diversification” and “regionalization” characteristics of the exchange rate risk spillover network mitigate the amplifying effect of global geopolitical conflicts on exchange rate risk spillovers. Network diversification reduces dependence on the exchange rate of a single currency, while network regionalization enhances risk resilience by strengthening intra-regional linkages. Furthermore, network connectivity characteristics exert a significant U-shaped moderating effect on the relationship between global geopolitical conflicts and exchange rate risk spillovers. It means that an appropriate level of network density helps mitigate the diffusion of conflict-induced exchange rate risks. This study not only extends research on the international transmission of financial risks from global geopolitical conflicts from a network perspective, but also provides important implications for strengthening international financial security and national financial risk prevention capacities.

Keywords

Global Geopolitical Conflicts, Exchange Rate Risk, Network Connectivity, Currency Network, TVP-VAR-DY Model

Meaning Construction and Emotional Buffering: The Mediating Mechanism of Reemployment Motivation on Thriving at Work Among Silver Workers

Chen Lanlan^{*}, Wang Yanling, Dai Yufang, Zhou Nanjin, Chen Nannan

School of Business, Yunnan University of Finance and Economics, Kunming, China

Email address:

462045858@qq.com (Chen Lanlan), 494105529@qq.com (Wang Yanling), 1667144584@qq.com (Dai Yufang), nano91@163.com (Zhou Nanjin), 416507408@qq.com (Chen Nannan)

^{*}Corresponding author

Abstract

In the context of active aging, the labor participation of silver workers has become a critical pathway to unleash the “silver dividend.” However, whether these silver workers can achieve “thriving at work” exhibits significant individual heterogeneity. Existing literature predominantly focuses on macro-level labor supply factors, leaving the micro-level mechanisms through which re-employment motivation translates into positive workplace experiences underexplored. Drawing on Socioemotional Selectivity Theory (SST), this study deconstructs silver workers’ reemployment motivation into two dimensions: meaning construction (approach-oriented) and emotional buffering (defensive-oriented), thereby constructing a competitive pathway model of how dual motivations influence thriving at work. An exploratory sequential mixed-methods design was employed. First, semi-structured interviews with 30 silver workers were conducted to identify the localized manifestations of these two motivations and their potential mediating pathways. Subsequently, based on the qualitative findings, a measurement scale was developed and refined, and 462 valid questionnaire responses were collected for hypothesis testing. The findings reveal an asymmetric effect: meaning construction motivation positively fosters thriving at work by stimulating job crafting, whereas emotional buffering motivation exerts a negative effect by exacerbating emotional exhaustion. Future time perspective serves as a boundary condition, amplifying the positive impact of the former while mitigating the negative impact of the latter. Cross-validation of the mixed methods indicates that the differentiated effects of these two motivations are rooted in the “limited time horizon” characteristic of the silver population. This study breaks away from the theoretical preset of re-employment motivation as a single continuum, reveals its “double-edged sword” effect and asymmetric pathways, and provides differentiated intervention targets for the development of the silver workforce.

Keywords

Silver Workers, Work Motivation, Thriving at Work, Socioemotional Selectivity Theory

Artificial Intelligence for Government Process Management in Brazil: A Design Science Approach to Smart Public Administration

Andrea Souza^{1, *}, Ernani Leite²

¹Department of Administration, Federal Institute of Education, Science and Technology of Ceará, Fortaleza, Brazil

²Department of Computer Science, Federal Institute of Education, Science and Technology of Ceará, Fortaleza, Brazil

Email address:

andrea.souza@ifce.edu.br (Andrea Souza), ernani.leite@ifce.edu.br (Enani Leite)

*Corresponding author

Abstract

The growing adoption of Artificial Intelligence (AI) in public administration has created opportunities to improve administrative efficiency while introducing new governance challenges related to transparency, accountability, explainability, legal compliance, and digital sovereignty. This study aims to present the AI-SEI Governance framework, which was integrated into Brazil's Electronic Information System (SEI) within the National Electronic Process (PEN) technology platform. The research employed a qualitative, descriptive methodology based on a document analysis of Brazilian legislation and digital government policies; a systematic review of international literature on Digital Government, AI Governance, Explainable AI, Human-in-the-Loop, Digital Sovereignty, and Public Value Theory; and a synthesis of functional and institutional requirements for the intelligent management of administrative processes. The resulting framework outlines four dimensions of the platform: technological infrastructure, intelligent services, governance mechanisms, and public value. The study concludes that the adoption of AI within the SEI should be understood primarily as a governance challenge rather than merely a technological initiative, offering a structured roadmap for implementing trustworthy, transparent, and human-centric AI in digital government. This study contributes to the literature by integrating Digital Government, Artificial Intelligence Governance, Design Science Research, Explainable AI, Human-in-the-Loop, Digital Sovereignty, and Public Value Theory.

Keywords

Artificial Intelligence, Digital Government, Electronic Information System, National Electronic Process, Design Science Research, AI Governance, Public Value, Digital Sovereignty

Research on the Influence of the Inconsistency of Internal and External Corporate Social Responsibility on Employees' Job Crafting

Gongxin Wu*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

Email address:

wgx0209@163.com (Gongxin Wu)

*Corresponding author

Abstract

Unequal investment in internal and external corporate social responsibility (CSR) is an important contextual factor affecting employees' job crafting. Based on the Job Demands-Resources (JD-R) Model, this paper explores the influence mechanism and boundary conditions of the inconsistency of internal and external corporate social responsibility on employees' job crafting from the perspectives of job resources and job demands. It builds a model with role overload and role breadth self-efficacy as mediating variables, and artificial intelligence use as the moderating variable. A scenario experiment (N=231) and a questionnaire survey (N=343) are used to test the effects of the two dimensions of the inconsistency of internal and external corporate social responsibility on employees' job crafting. The results show that compared with the situation where internal CSR outweighs external CSR, the situation where external CSR outweighs internal CSR results in higher employees' role overload, which in turn negatively affects job crafting, and compared with the situation where external CSR outweighs internal CSR, the situation where internal CSR is greater than external CSR results in higher employees' role breadth self-efficacy, which in turn positively affects job crafting. Additionally, AI use negatively moderates the effect of the inconsistency of internal and external CSR on role overload, and positively moderates its effect on role breadth self-efficacy. This research results extends the explanatory boundary of the JD-R Model in the CSR field, and enriches the research on how internal-external CSR inconsistency affects employees' job crafting, and provides theoretical basis and practical reference for enterprises to build a coordinated internal and external CSR system and empower employees' job crafting with AI technology.

Keywords

Internal Corporate Social Responsibility, External Corporate Social Responsibility,
The Inconsistency of Internal and External CSR, Job Crafting, AI Use

Reproducing Community-based Eldercare Service Spaces Under Population Ageing: A Case Study of Ruijin Beicun Community in Nanjing, China

Ziyu Zhou, Tianke Zhu*

School of Architecture and Urban Planning, Nanjing University, Nanjing, China

Email address:

zhouziyu16@163.com (Ziyu Zhou), tianke.zhu@qq.com (Tianke Zhu)

*Corresponding author

Abstract

In urban China, older people's growing need to 'ageing in place' has revealed the limited capacity of many existing neighbourhoods to provide accessible and sustained eldercare support. While government-led age-friendly initiatives seek to strengthen community-based support, their implementation requires the coordination of spatial resources, institutional arrangements, and older residents' everyday care needs within existing neighbourhoods. This raises a critical question for urban planning: how are new eldercare services embedded into existing built environments, and how does this process reshape community space? Drawing on the theory of the production of space, this paper examines Ruijin Beicun Community in Nanjing as a qualitative case study. Through participant observation, in-depth interviews, and policy analysis, it analyses how community-based eldercare is embedded in existing neighbourhood spaces and how service provision, spatial resources, and governance arrangements are reorganised in this process. The findings show that introducing eldercare services into older neighbourhoods produces a composite service space that brings together physical facilities, institutional arrangements, and lived social relations. Through the reuse of vacant community spaces, the development of embedded service facilities, and service procurement arrangements, local community governance is gradually shifting from administrative management towards life-support-oriented coordination. This process also generates several tensions in practice, including those between public welfare goals and market-based operations, standardised care protocols and individualised everyday needs, as well as universal policy ambitions and selective resource allocation. This paper argues that age-friendly regeneration should be understood as an ongoing process of reorganising welfare responsibilities, spatial resources, and care relations within existing neighbourhoods, rather than as a static outcome of facility provision. It contributes to urban planning debates by showing how community-based eldercare can become a mechanism for spatial governance and age-friendly regeneration in densely populated and ageing urban environments.

Keywords

Community-based Eldercare, Production of Space, Age-friendly Regeneration, Spatial Governance, Ageing in Place, Nanjing

The Path of Language-meaning Integration in the International Publicity Translation of Hui Culture

Tang Lingling*

College of Foreign Languages, Chaohu University, Chaohu, China

Email address:

1157788204@qq.com (Tang Lingling)

*Corresponding author

Abstract

Grounded in Lotman's dialogic theory of cultural semiotics, this study critically examines the prevailing practice of international publicity translation for Hui culture, which tends to reduce translation to mere linguistic transposition and overlooks the deeper semiotic processes of meaning construction. To remedy this deficiency, we propose a tripartite operational framework—integrative maintenance (preserving cultural integrity), bidirectional harmonization (balancing source and target semiotic systems), and multilayered interaction (engaging multiple levels of cultural signification)—which collectively inform translation decision-making. Correspondingly, three synergistic strategies are developed: disenchantment, which demystifies opaque cultural symbols to facilitate initial cognitive access; enlightenment, which fosters negotiated interpretation through cross-cultural dialogue; and aestheticization, which evokes emotional and sensory resonance by exploiting poetic and rhetorical dimensions of language. Their effectiveness is empirically tested via a structured questionnaire administered to international students and foreign teachers, with items designed to measure three progressive outcomes: cognitive clarity, negotiated meaning-making, and affective engagement. Quantitative analysis reveals a clear hierarchical progression: disenchantment significantly improves factual comprehension, enlightenment enhances interactive understanding, and aestheticization produces the strongest emotional impact, confirming the complementary synergy among the three strategies. The study concludes that embedding cultural semiotics into translation practice fundamentally redefines it as dynamic symbolic dialogue and co-construction of meaning, rather than mechanical code-switching. This transformative approach not only offers a viable pathway for regional cultures like Hui to “go global” but also contributes to broader cross-cultural communication theory and provides actionable guidelines for translating other intangible cultural heritage in international contexts.

Keywords

Hui Culture, International Publicity Translation, Cultural Semiotics, Dialogic Theory, Quantitative Analysis

Regional Transfers and Tax Effort: A Nash Equilibrium in Fiscal Federalism

Bilin Neyapti*

Department of Economics, Bilkent University, Ankara, Turkiye

Email address:

neyapti@bilkent.edu.tr (Bilin Neyapti)

*Corresponding author

Abstract

This paper develops a general equilibrium model in which local governments (LGs) and a central government (CG) interact under a fiscal transfer rule combining a penalty for inefficient revenue collection, an income-equalization target, and an investment-tied share. Each LG chooses its tax collection effort; the CG chooses the share of each region's transfers earmarked for local investment. The Nash equilibrium is derived in closed form: the optimal earmarking share decomposes additively into an enforcement term and a preference-alignment term, and in any interior equilibrium the public—private expenditure mix equals the CG's preferred ratio, independently of local preferences. Under a benevolent-CG criterion this composition is welfare-optimal; a Stackelberg benchmark shows that commitment would trade the preferred composition for higher effort -- a time-inconsistent outcome. Calibration classifies the United States as a full-effort corner solution and China as an interior equilibrium.

Keywords

Fiscal Decentralization, Tax Effort, Transfer Rule, Earmarked Transfers

Practical Challenges and Optimization Strategies for Enhancing Preschool Teachers' Literacy in Intelligent Applications: A Case Study of Z Kindergarten in Yinchuan

Yuanyuan Li, Shan He*

College of Teacher Education, Ningxia University, Yinchuan, China

Email address:

liyuanli.nxu@qq.com (Yuanyuan Li), heshan@nxu.edu.cn (Shan He)

*Corresponding author

Abstract

As artificial intelligence drives rapid advancements in early childhood education, preschool teachers' competency in utilizing AI technologies is fundamental to improving educational quality. Using Z Kindergarten in Yinchuan, Ningxia Hui Autonomous Region, as a case study and employing a mixed-methods approach—including classroom observations and in-depth interviews—this research investigates preschool teachers' literacy in the intelligent application of technology. Specifically, it examines their proficiency in operating various types of intelligent teaching equipment, such as AR exploratory sand tables, age-specific coding games, intelligent picture-book reading desks, and creative interactive floors. The results reveal significant discrepancies in teachers' instructional performance when using different intelligent devices. Overall, their capacity to adopt AI-enabled teaching tools needs considerable improvement, while practical obstacles continue to hinder the implementation of digital technologies in early childhood education and care. First, teachers often hold biased perceptions of intelligent tools; most view such facilities merely as auxiliary teaching aids and lack a thorough understanding of their deeper value in supporting children's personalized development. Second, practitioners are deficient in the practical skills for leveraging digital tools effectively. Although most can perform basic operations, they are unable to analyze children's learning data via smart systems or design individualized instructional plans. Third, some educators lack ethical awareness regarding digital tool usage. Several practitioners overly depend on smart devices to substitute face-to-face interactive guidance and fail to safeguard young children's data privacy. Lastly, the institutional support framework remains insufficient. Burdened with heavy daily routines, the kindergarten's existing AI training program has inherent flaws, leading to uneven training outcomes. To address these issues, this paper proposes targeted and feasible optimization strategies. First, a hierarchical and categorized training framework should be established to deliver comprehensive, tiered, and immersive training centered on real-world AI use cases. The sessions will cover basic operations, data analysis, and individualized instructional design. Second, a practical community integrating digital tools and pedagogical research should be fostered. Rooted in kindergarten-based educational research, educators are encouraged to draw on their professional insights and pursue self-directed learning via various online platforms to explore innovative uses of smart devices. Next, AI-aided instruction should be embedded into children's daily routines to combine AI support with preschool education and care, thereby enhancing instructional consistency and routine alignment. Finally, standardized ethical codes for the adoption of digital resources need to be revised to clarify appropriate boundaries for technology use and to raise educators' awareness of protecting children's data privacy.

Keywords

Preschool Teacher AI Literacy, AI-enhanced Instruction, Intelligent Teaching, Kindergarten-based Training, Ethical AI Use

Individualization of Learning Based on Intercultural Competence: Training Managers with the Use of Artificial Intelligence

**Karolina Mazurowska^{1, *}, Radosław Stanczewski¹, Dorota Marciniak²,
Joanna Grzybek³, Jacek Marciniak⁴, Krzysztof Dyszkiewicz⁴, Marcin Szczepański⁴**

¹Faculty of Psychology, SWPS University, Warsaw, Poland

²Faculty of Psychology, SWPS University, Poznań, Poland

³Department of Oriental Studies, Jagiellonian University, Kraków, Poland

⁴Department of Artificial Intelligence, Adam Mickiewicz University, Poznań, Poland

Email address:

kmazurowska@swps.edu.pl (Karolina Mazurowska)

*Corresponding author

Abstract

In the globalised world business professionals, in order to work effectively, are required to present high level of intercultural competence. The research was conducted among 40 global business leaders in Poland studying through an e-learning course on cooperation with Chinese business partners. This particular course was defined to identify level of their intercultural competence and direct them to a specific learning path. A number of variables determining the level of intercultural competence were taken into account in the decision-making process. The control of learning individualization was carried out with the use of Artificial Intelligence solutions. A fuzzy controller with a rule-based system was used to identify individuals with high intercultural competence. It was assumed that such a level of intercultural competence is possessed by participants who obtained a very high result in the Cultural intelligence scale presented them in the initial stage of the research. Since the Intercultural competence is a fuzzy concept with numerous components, four of its types were tested: 1) attitudes or orientations, such as attitudes toward Chinese culture and Chinese business people; 2) personality traits of the leaders; 3) their specific knowledge on Chinese business culture and its understanding, their capability to learn how to behave appropriately in a given entrepreneurial context; 4) their cognitive skills to take a Chinese partner's perspective. At the end of each knowledge module there was a Test Yourself confirming participants' progress. The learning paths presented in the course have been determined on the basis of expert knowledge taking into account the specificity of the target group, the expected differentiated level of intercultural competence and the objectives of the course. The study presents interesting data that help to better understand multifaceted of Intercultural Competence. It provides results on how Cultural Intelligence interacts with variables linked not only to individual factors (such as ethnocentrism) but also with factors related to group and organizational dimensions (conflict management, business cooperation). Finally, it proves a concept of an effective, individualised training tool based on AI solutions in automated education.

Keywords

AI in Education, Learning Individualization, Cultural Competence, Intercultural Intelligence

Email Correspondence in Russian Academia: Emotional vs Artificial Intelligence

Tatiana Martseva^{1, *}, Svetlana Suchkova²

¹School of Foreign Languages, National Research Higher School of Economics, Moscow, Russia

²Academic Writing Centre, National Research Higher School of Economics, Moscow, Russia

Email address:

tMartseva@hse.ru (Tatiana Martseva), sSuchkova@hse.ru (Svetlana Suchkova)

*Corresponding author

Abstract

The email is traditionally the most widely used genre both in general and academic communication. Researchers use it to cooperate with foreign colleagues working together on joint research projects as well as editors and reviewers of scientific journals while submitting their manuscripts for publication. That is why, the ability to write effective emails is crucial for a scholar. Since 2018, Academic writing center of the Higher School of Economics (HSE) in Russia annually holds a diagnostic academic writing and speaking module for aspiring and experienced HSE researchers to assess their English communication skills. An email was chosen to test the participants' writing skills as being the most frequently used type of writing it is familiar to Russian researchers even with limited English language skills. Therefore, they were expected to feel comfortable and relaxed while writing an effective and relevant email reply based on the provided prompt. During these years, about 300 email samples have been collected and analyzed for the current research. The advent of artificial intelligence (AI) in the past few years has transformed the landscape of human activity including email writing. Many people delegate their email correspondence to AI believing it can manage the writing process more efficiently eliminating spelling, grammar, lexical, punctuation, and other mistakes as well as enhancing the general tone of an electronic letter. The objective of this research was to look into the genre of an email, its development and major conventions, as well as the expectations the recipients have when they get an electronic letter. After that the samples written by Russian scholars were compared with those produced, following the same prompt, by the most popular AI agents developed in China and the USA in terms of the content relevance, following the genre conventions, structure, coherence and cohesion, grammar and vocabulary range and accuracy as well as the tone of the electronic letters. As a result, the authors have developed a typology of the strengths and weaknesses of emails written by Russian researchers and AI agents and offered recommendations on how to enhance the process of email writing to make electronic communication effective and pleasant both for the email writer and its reader.

Keywords

Email Ethics, Tone of Email, Academic Correspondence, Russian Academia, Emotional Intelligence, Artificial Intelligence

Sketch Thinking and Volumetric Deconstruction: An Interest-oriented Innovative Practice in Small-scale Architectural Design Course

Wang Yiyang*

Art and Design School, Xi'an University of Technology, Xi'an, China

Email address:

358655073@qq.com (Wang Yiyang)

*Corresponding author

Abstract

Against the backdrop of structural adjustments in China's domestic construction industry and a deceleration in urbanisation growth, the disconnection between design theory and practice in traditional architectural education, alongside the misalignment between training models and student interests, has become increasingly prominent. In response to the practical constraints of the architectural design course for the Environmental Design major—characterised by "small credits and short class hours"—the Environmental Design programme at Xi'an University of Technology has offered a small-scale architectural design course over four years. After four rounds of teaching refinement, a three-stage teaching model has been developed: "practical cognition – sketch thinking – volumetric decomposition." The course first guides students through site visits and scale perception to establish a systematic connection between "body – scale – space" in real-life scenarios. Subsequently, sketching is employed as a visual tool for design thinking, with teacher-student revision sessions training spatial conception and logical reasoning abilities. Finally, Adolf Loos's Raumplan is introduced as the core design method, requiring students to independently define and reorganise spatial volumes under given functional conditions, facilitating a transition in design thinking from two-dimensional plan layout to three-dimensional volumetric organisation. Teaching practice demonstrates that the course effectively stimulates students' intrinsic motivation; several lower-year student works have received awards in professional competitions, and a number of students have used their Raumplan-based design projects as core portfolio pieces for admission to renowned architecture schools abroad, including Politecnico di Milano and the University of Manchester. This teaching model achieves the synergistic goals of design thinking training and practical skill enhancement within limited class hours, offering a replicable pathway for spatial design instruction in general design-oriented courses.

Keywords

Small-scale Architectural Design, Interest-oriented, Sketch Thinking, Raumplan, Environmental Design, Teaching Reform

Prospective Prediction of Low Self-reported Academic Performance Among Adolescents Using Explainable Machine Learning: A Multi-school Longitudinal Study

Liyan Zhao^{1,*}, Dongping Li²

¹School of Education, Chengdu College of Arts and Sciences, Chengdu, China

²School of Psychology, Central China Normal University, Wuhan, China

Email address:

zeenaly@sina.com (Liyan Zhao), lidongping@mail.ccnu.edu.cn (Dongping Li)

*Corresponding author

Abstract

Low academic performance during adolescence may constrain educational development, yet schools have limited evidence on which psychosocial and contextual factors can inform timely support. Few longitudinal prediction studies test whether models transfer across schools. Guided by ecological systems theory, this study examined whether baseline characteristics across individual, family, peer, school, and behavioral contexts could prospectively predict low self-reported academic performance among adolescents. The baseline sample comprised 1,365 students from four Chinese secondary schools. Of these, 1,079 students (79.0%; 51.5% boys; mean age = 14.52 years, SD = 1.58) completed the third-wave assessment and formed the analytic sample. Low self-reported academic performance was operationally defined as a third-wave mean score of 2 or lower across ratings of Chinese, mathematics, English, and overall academic performance; 195 students (18.1%) met this criterion. Sixty-seven first-wave ecological indicators served as predictors. Prior academic performance was excluded from the primary analysis to assess psychosocial and contextual information alone. Five machine-learning algorithms were evaluated using nested stratified 10-fold cross-validation, with all preprocessing and hyperparameter tuning conducted within the training folds. Leave-one-school-out validation assessed transportability across school settings. Regularized logistic regression achieved the strongest overall performance and showed moderate prospective discrimination (AUC = 0.717, PR-AUC = 0.398, sensitivity = 0.682, specificity = 0.643, Brier score = 0.132). Because 18.1% of students met the operational criterion, the PR-AUC was notably higher than the corresponding no-skill reference value of 0.181. School-specific held-out AUCs ranged from 0.684 to 0.730, whereas the pooled leave-one-school-out AUC was 0.686, indicating preliminary cross-school transportability accompanied by some loss of discrimination. Activation control, conscientiousness, educational stage, classmate relationships, family economic status, parent-child relationships, neuroticism, and competence-need satisfaction were among the most strongly weighted predictors, with predictive information distributed across ecological levels. Adding prior academic performance in a sensitivity analysis increased the AUC to 0.812, underscoring the importance of previous performance for prospective prediction. Overall, multi-context baseline information provided moderate discrimination of subsequent low self-reported academic performance. Explainable machine learning may help schools recognize students who could benefit from additional academic support, but it should complement rather than replace professional educational judgment. In practice, schools may combine prior academic performance with information on self-regulation, peer relationships, and family contexts to provide timely, differentiated support. Independent validation using objective achievement measures and

further assessment of calibration and decision thresholds are required before broader application.

Keywords

Academic Performance, Adolescents, Ecological Systems Theory, Explainable Machine Learning, Longitudinal Prediction, Cross-school Validation

AI-driven Adaptive EdTech and Interactive Storytelling

Shirley Cheung*

Department of Journalism and Communication, Hong Kong Chu Hai College, Hong Kong, China

Email address:

shirleycheung@chuhai.edu.hk (Shirley Cheung)

*Corresponding author

Abstract

The rapid advancement of educational technology has significantly reshaped teaching and learning practices across classroom-based, remote, and hybrid educational environments. In response to increasing learner diversity, digitalization, and the demand for flexible instructional models, innovative EdTech applications have emerged that leverage artificial intelligence (AI), adaptive learning systems, and interactive digital pedagogies. This paper examines how AI-driven tools can enhance learner engagement, personalization, and educational outcomes through data-informed and learner-centred instructional design through the application of AI and Interactive story-telling. Particular attention is given to AI-enabled technologies such as adaptive learning platforms, intelligent feedback systems, narrative-driven learning environments, and generative AI tools that support content creation and instructional scaffolding. These tools enable real-time adaptation of learning materials, personalized feedback, and dynamic adjustment of instructional pacing based on individual learner needs and interaction patterns. Such capabilities are increasingly critical in both classroom and remote learning contexts, where educators must support varied learning pathways while sustaining motivation and engagement at scale. Using my proposed “Inter-Institutional Development Scheme (IIDS) seminar series- *Exploring Future Communication: The Application of AI and Interactive Storytelling in Education*” as a representative example, this paper illustrates how AI-enhanced interactive storytelling can be integrated into higher education curricula to support active and immersive learning experiences. The seminar series demonstrates how narrative-driven AI systems can transform traditional lecture-based instruction into participatory learning environments. Through role-play, scenario-based decision-making, and adaptive story progression, students become active contributors to the learning process rather than passive recipients of information. These interactive narratives respond dynamically to learner inputs, enabling personalized learning paths that align with individual understanding, interests, and progress. By embedding disciplinary content within interactive story structures, complex concepts can be contextualized and made more accessible, supporting deeper comprehension and retention. The paper highlights how such approaches foster higher-order skills including critical thinking, problem-solving, creativity, and reflective learning—competencies that are particularly valued in contemporary education and evolving workforce contexts. Furthermore, the seminar model illustrates how AI-driven storytelling approaches can be applied across disciplines and delivery modes, making them adaptable for classroom-based teaching, fully online courses, and blended learning environments. The paper also explores the scalability and sustainability of AI-driven EdTech applications in remote and hybrid learning settings, where adaptive learning systems play a central role in sustaining learner engagement, monitoring progress, and providing timely support. In parallel, ethical considerations surrounding AI adoption in education—including data privacy, algorithmic bias, transparency, and the authenticity of AI-generated educational content—are examined to emphasize responsible and inclusive implementation. Overall, this paper argues that innovative EdTech applications, when thoughtfully designed and ethically deployed, offer substantial potential to

transform contemporary education. By combining AI-driven adaptive learning systems with interactive digital pedagogies such as storytelling, educators can create flexible, inclusive, and impactful learning experiences that address the challenges of modern classroom and remote learning while better preparing students for participation in an increasingly technology-driven world.

Keywords

AI in Education, Edtech, Adaptive Learning, Interactive Storytelling, Immersive Learning, Personalized Learning, Hybrid Learning



Science Publishing Group (SciencePG), an open access publisher with experienced and eminent reviewers and editorial board members, is mainly attaching importance to developing journals, books and conferences which have owned unique characters respectively. Here is the website of SciencePG: <http://www.sciencepublishinggroup.com>

ISBN 979-888599154-4

