2024 5th International Conference on Education Development and Studies (ICEDS 2024)

CONFERENCE PROGRAM

The University of Cambridge, Cambridge, UK | 24-26 April 2024

SPONSORED BY

University of Glasgow

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ICEDS 2024

WELCOME ADDRESS

ICEDS 2024

Welcome all of you to join the 5th International Conference on Education Development and Studies (ICEDS 2024), which will be held at The University of Cambridge, Cambridge, UK during 24-26 April, 2024. The conference theme is "Empowering Education in the Digital Era: Innovations, Integration, and Inclusivity". It will offer an ideal platform for presentation, discussion, criticism and exchange of innovative ideas and current challenges in the field of e-education.

This year we are honored to welcome two distinguished keynote speakers: Prof. Jan Vermunt from Eindhoven University of Technology, Netherlands and Prof. Kelum Gamage from University of Glasgow, UK. Meanwhile we are honored to have three invited speakers. They are Prof. Alan Garfield from University of Dubuque, USA, Assoc. Prof. Rachel Fitzgerald from University of Queensland, Australia and Principal Lecturer Dr. Panagiotis Fotaris from University of Brighton, UK. We eagerly look forward to their contributions and the positive impact they will have on the knowledge exchange and overall success of the conference. There are three onsite parallel technical sessions and one online session, and the topics include Technology Assisted Learning and Game-Based Learning, AI in Education, Digital Learning, and Innovative Teaching Methods, Education Policy, Professional Development, and Psychology. We hope that all participants and other interested readers benefit from and enjoy the presentations and find it stimulating in this process.

We wish to express our sincere appreciation to University of Glasgow for their leadership in bringing this event to life. Special thanks are extended to our colleagues in organizing committee for their thorough review of all the submissions, which is vital to the success of the conference, and also to the members in the organizing committee and the volunteers who had dedicated their time and efforts in planning, promoting, organizing and helping the conference.

Enjoy the conference ICEDS 2024!

ICEDS 2024 Organizing Committee

The University of Cambridge, Cambridge, UK | 24-26 April 2024

CONFERENCE COMMITTEE

ICEDS 2024

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Victor Fester, University of Waikato, New Zealand

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YEUNG Yau Yuen, The Education University of Hong Kong, China

Yu-Mei Wang, University of Alabama at Birmingham, USA

CONFERENCE VENUE

ICEDS 2024

Robinson College, University of Cambridge

Address: Grange Rd, Cambridge CB3 9AN, United Kingdom

How to Get to Robinson College

Robinson is situated in Grange Road, close to the centre of Cambridge. Grange Road runs between Barton Road and Madingley Road and is parallel to Queens' Road (the 'Backs').

Find the ways to Robinson college on website:

https://www.robinson.cam.ac.uk/contact-us/visiting-robinson/directions

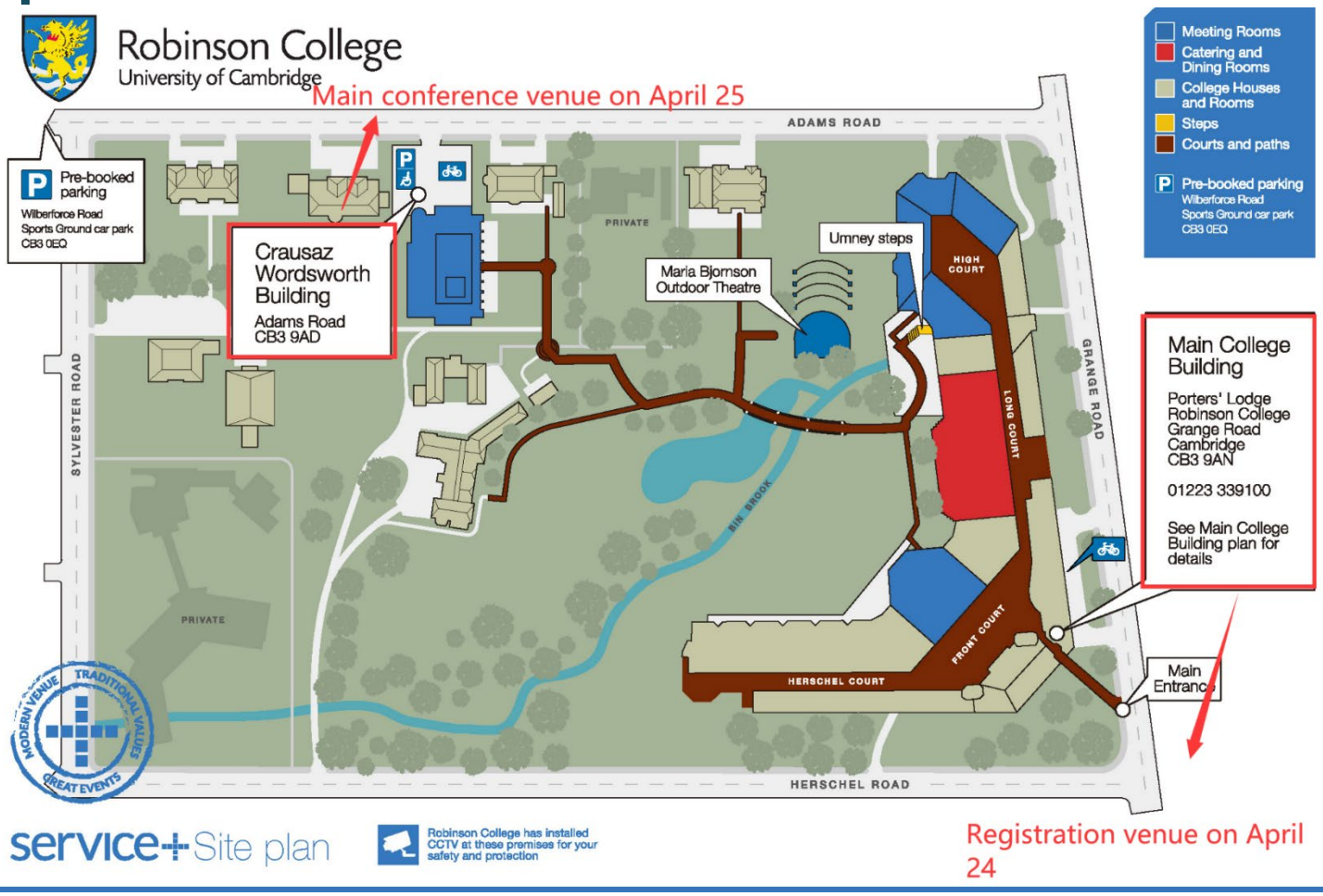
Note*

Please note that the conference will be held at two buildings, the Main College Building and the Crausaz Wordsworth Building. They are close to each other. The addresses and college plan are as followed:

Main College Building: Robinson College, Grange Road, CB39AN

Crausaz Wordsworth Building: Crausaz Wordsworth Building, Adams Road, CB39AD

College Plan



Meeting Rooms

Venue	Building	Level	24 April Registration	25 April Main conference
Auditorium Foyer	Main College Building	Ground Floor	■	
Plenary Room	Crausaz Wordsworth Building	Ground Floor		■
Syndicate Room 1	Crausaz Wordsworth Building	First Floor		■
Syndicate Room 2	Crausaz Wordsworth Building	First Floor		■

CONFERENCE GUIDELINE

ICEDS 2024

➢ Conference Date

- **24-26 April 2024 | Cambridge Time (UTC/GMT+1)**
- Onsite Registration (Conference Materials Collection); Conference Speeches; Technical Sessions

➢ Online Session

- The online session will be held at Zoom. On 24 April, online presenters should join in zoom to test your slides, audio and video. Detailed arrangements can be found in Agenda Overview.
- If you haven't download Zoom, please download at: https://zoom.us/zh-cn/download#room_client
- **Zoom ID:** 853 4715 7096
- **Password:** ICEDS2024
- Log in to the web version:
- https://us02web.zoom.us/j/85347157096?pwd=b3QwQjhQcklmZmZzVkQ4RURNUng1Zz09

➢ Oral Presentation

- Each presentation will last for 15 minutes. You will be given 10 minutes to make presentation and 5 minutes to answer questions from the session chairs and audiences.
- Your punctual arrival and active involvement in each session will be highly appreciated.
- Get your presentation slides or PDF files prepared and backed up. Before the session get started, please upload your Slides to the conference computers.
- Laptops, projector & screen, laser sticks will be provided by the conference organizer.

➢ Dress Code

- Please wear formal clothes or national characteristics of clothing.

➢ Important Notes

- Please take care of your belongings during the conference. The conference organizer does not assume any responsibility for the loss of personal belongings of the participants.
- Please wear your participation badge during the conference. There will be NO access for people without a badge. NEVER discard your badge at will.
- Accommodation is not provided. Delegates are suggested make early reservation.
- Please show the badge and meal coupons when dining.

AGENDA OVERVIEW

ICEDS 2024

Wednesday, 24 April 2024 | UTC/GMT+1

Time	Event	Zoom
10:00-12:00	**Online Testing**	**Zoom ID: 853 4715 7096 Password: ICEDS2024**

Time	Event	Venue
10:00-12:00	**Sign-in and Conference Kit Collection**	**Auditorium Foyer (Ground Floor)**
12:00-14:00	**Break**	
14:00-16:00	**Sign-in and Conference Kit Collection**	**Auditorium Foyer (Ground Floor)**

Thursday, 25 April 2024 | UTC/GMT+1

Time	Event	Venue
9:00-9:05	Opening Remarks **Prof. Kelum Gamage, University of Glasgow, UK**	**Plenary Room (Ground Floor)**
9:05-9:45	Keynote Speech 1 **Prof. Jan Vermunt, Eindhoven University of Technology, Netherlands** Title: *Innovative Pedagogies and the Quality of Student and Teacher Learning*	
9:45-10:25	Keynote Speech 2 **Prof. Kelum Gamage, University of Glasgow, UK** Title: *Fostering Authentic Learning: Strategies in Assessment Design to Mitigate Cheating*	
10:25-11:00	**Coffee Break & Group Photo**	

11:00-11:30	Invited Speech 1 **Prof. Alan Garfield, University of Dubuque, USA** Title: *Depends on the Context: The Problem of Moral Timidity in Higher Education*	
11:30-12:00	Invited Speech 2 **Assoc. Prof. Rachel Fitzgerald, University of Queensland, Australia** Title: *Navigating Next Steps in Online and Digital Learning: Adaptive Challenges for Global Higher Education*	
12:00-13:30	**Lunch Break**	
Time	**Event**	**Venue**
13:30-14:00	Invited Speech 3 **Principal Lecturer Dr. Panagiotis Fotaris, University of Brighton, UK** Title: *Unlocking Potential: Streamlining Educational Escape Room Design with Room2Educ8 and Generative Artificial Intelligence*	**Plenary Room (Ground Floor)**
14:00-14:10	**Break**	
14:10-15:40	Technical Session 1: **Technology Assisted Learning and Game-Based Learning** Session Chair: Assoc. Prof. Rachel Fitzgerald, University of Queensland, Australia DS1061, DS1070, DS1001, DS1064, DS1060-A, DS1050	**Syndicate Room 1 (First Floor)**
	Technical Session 2: **AI in Education, Digital Learning, and Innovative Teaching Methods** Session Chair: Principal Lecturer Dr. Panagiotis Fotaris, University of Brighton, UK DS1039-A, DS1005, DS1106-A, DS1072, DS1058, DS1053, DS1032-A	**Syndicate Room 2 (First Floor)**
15:40-16:15	**Coffee Break**	
16:15-18:00	Technical Session 3: **Education Policy, Professional Development, and Psychology** Session Chair: Lecturer Carolan H. Ziegler, Edgewood College, USA DS1101-A, DS1031-A, DS1013-A, DS1107-A, DS1103-A, DS1102-A, DS1030-A	**Syndicate Room 1 (First Floor)**
18:30-20:30	**Dinner**	

Friday, 26 April 2024 | UTC/GMT+1

Time	Event	Zoom
10:00-11:45	Online Technical Session 1 **Educational Information Technology and Digital Learning** Session Chair: Asst. Prof. Hilary Ng, Hong Kong Metropolitan University, China DS1076, DS1027, DS1078, DS1017, DS1066, DS1055, DS1047	**Zoom ID: 853 4715 7096** **Password: ICEDS2024**

KEYNOTE SPEAKER

ICEDS 2024

9:05-9:45 | UTC/GMT+1

Venue: Plenary Room

Prof. Jan Vermunt

Eindhoven University of Technology, Netherlands

With effect from 1 December 2018 Jan Vermunt is a Professor of Learning Sciences and Educational Innovation at Eindhoven University of Technology, Eindhoven School of Education. He has also been the Scientific Director of the School. The study of human learning has always fascinated him. His expertise area are the learning sciences, with a focus on teaching and student learning in higher education, and teachers' learning and professional development. Current research interests include effective ways to support personal learning pathways, using student learning data to improve teaching and learning, developing innovative teachers, benefitting from diversity among students, promoting deep and self-regulated learning, and new pedagogies for challenge-based learning. His scientific work was published in journals such as Learning and Instruction, British Journal of Educational Psychology, Teaching and Teacher Education, Teachers College Record, Higher Education, Studies in Higher Education, Academic Medicine, Medical Education, and Vocations and Learning.

In 1992 Jan Vermunt received his doctoral degree from Tilburg University with a thesis on student learning in higher education. He moved to Leiden University in 1995, where he worked for six years, during two periods, as an associate professor at ICLON – Graduate School of Teaching. From 1999 to 2002 he was a Professor of Educational Development and Research at Maastricht University, at the Faculty of Health Sciences. He was a visiting professor of Educational Innovation in higher education, University of Hasselt, Belgium, from 2002 to 2003. From 2004 to 2012 he served as professor of Teaching and Teacher Education at Utrecht University. In 2012 Jan was elected Professor of Education at the University of Cambridge. In his Cambridge years he was also Deputy Head, Director of Research, and Director of Teaching and Learning of the Faculty of Education, Academic Group Head, and Fellow of Wolfson College. From 2014 to 2018 he served as Editor-in-Chief of Learning and Instruction, one of the leading journals in the world in the field of Educational Research. In 2016 the University of Antwerp awarded him an honorary doctorate in Educational Sciences for his entire scientific work.

Speech Title: Innovative Pedagogies and the Quality of Student and Teacher Learning

Abstract: Education needs to prepare students for fast developments in society and technology. Some of these developments, such as those in Artificial Intelligence, proceed incredibly rapidly. Pedagogies that were used widely in the past are no longer suited to prepare students for many challenges of the future. Therefore, in many schools and universities new approaches to teaching and learning are being introduced. They aim to educate students to think independently, critically, and deeply about problems in and around their discipline, and to keep on learning and developing throughout their professional lives. They also aim to enable graduates to work independently and collaboratively, to engage with society, to contribute to understanding and solving complex problems, and to communicate with people from other disciplines and practitioners. Problem-based

learning, project-based learning, personalized learning pathways, design-based learning, work-based learning, and challenge-based learning are some major innovative pedagogies that have been adopted to help students to attain these aims through better learning: more active, deep, self-regulated, intrinsically motivated, collaborative, interdisciplinary, meaning-oriented, and application-oriented learning. Innovative pedagogies like these require very different teacher roles than many are used to, such as tutor, skills assessor, problem designer, digital teacher, and coach of students' learning, problem solving and collaboration processes. Often teachers are struggling with these new roles. Therefore, a variety of approaches to teacher professional learning and development are being developed to help them. In this keynote Jan will share new research on the design and effects of innovative pedagogies aimed at improving the quality of student learning and teacher professional development.

KEYNOTE SPEAKER

ICEDS 2024

9:45-10:25 | UTC/GMT+1

Venue: Plenary Room

Prof. Kelum Gamage

University of Glasgow, UK

Prof. Gamage received the B.Sc. Electrical Engineering degree from University of Moratuwa, Sri Lanka and the PhD from University of Lancaster, UK. He is a Professor in the James Watt School of Engineering at the University of Glasgow, UK and holds the position of Visiting Professor at the University of Electronic Science and Technology of China (UESTC) and Sri Lanka Technological Campus (SLTC). He is an academic accreditor and also a Professional Registration Advisor (PRA) of the Institution of Engineering and Technology (IET). His research interests are in radiation detection, instrumentation methods, engineering education, educational development and innovation, education for sustainability, quality assurance and enhancement. He has authored over 180 peer-reviewed technical articles and holds a patent for a system designed to image fast neutron-emitting contamination (Patent No. GB2484315, April 2012). Kelum is the lead editor of "The Wiley Handbook of Sustainability in Higher Education Learning and Teaching" (ISBN: 978-1-119-85283-4) and is the Editor-in-Chief for the STEM Education Section of the Education Sciences Journal (Publisher: MDPI, Switzerland, ISSN 2227-7102). He is also an editorial board member of Humanities & Social Sciences Communications (Springer Nature, ISSN 2662-9992), Radiation Protection and Dosimetry (Publisher: Oxford University Press) and Sensors (Publisher: MDPI, Switzerland, ISSN 1424-8220). Currently, he is the guest editor for a Special Issue of Education Sciences (ISSN 2227-7102), titled "Learning for Sustainability: Challenges and Progress of Embedding Sustainability into Teaching and Learning and Beyond. He is a Chartered Engineer of the Engineering Council (UK), a Principal Fellow of the Higher Education Academy, a Fellow of the IET, a Fellow of Royal Society of Arts and a Senior Member of IEEE.

Speech Title：Fostering Authentic Learning: Strategies in Assessment Design to Mitigate Cheating

Abstract: The academic research literature highlights diverse instances of students outsourcing their educational tasks, contributing to the escalating global concern in educational settings. Recently, this concern has intensified, particularly with the utilisation of artificial intelligence, notably with the advent of ChatGPT. Numerous studies have aimed to identify the underlying reasons for the heightened involvement of students in cheating, where in this presentation, I will investigate the primary factors that influence a minority of students to resort to cheating and keep the majority of students away from such dishonest behaviour. I will consider whether technology provides more opportunities for academics to focus on assessing higher-order thinking and strategies to mitigate cheating in higher education.

INVITED SPEAKER

ICEDS 2024

11:00-11:30 | UTC/GMT+1

Venue: Plenary Room

Prof. Alan Garfield

University of Dubuque, USA

Professor Alan Garfield, Emeritus, was Chair of the Digital Art and Design Department at the University of Dubuque, in Dubuque, Iowa USA. He still serves as Director of the Bisignano Art Gallery (a post he has held since 2008). His formal education is eclectic: BA, University of Iowa; MA, State University of New York-Binghamton; Postgraduate work Wadham College, Oxford. As an art historian, his publications are also diverse, including papers on 2D and 3D animation algorithms, images in contemporary politics, 19th century French philosophies, Holocaust studies, Beat Generation poetry, and challenges in higher education. He teaches in Iowa; he lives in Madison, Wisconsin USA with his wife (Phyllis) and grandkids (3yr old and 1 yr old) and summers in Donegal, Ireland.

Speech Title: Depends on the Context: The Problem of Moral Timidity in Higher Education

Abstract: The reason that universities have lasted so long, in fact longer than most institutions, is because of the enduring value of what they do. It's a matter of basic biology - form and function. Yet it is worth remembering that longevity is in itself small virtue, and institutions and their influence can change. In fact, are changing.

Surely it is an understatement to observe that the process of educational secularization at many universities has been a violent and conflictive process. We cannot assume simply that since universities have been around a very long time means that they will remain the way they are. Neither here nor elsewhere and the reason, simply, is the ubiquity of technology.

In fact, things are unlikely to get easier for universities. Their traditional roles have been expanded and challenged by technology's omnipresence. We hear the trope in so many ways; some variant to "Technology will make learning more efficient and more interesting." This is a fine argument, if we're looking for efficiency and interest as a means but not as an end.

In this presentation, I will show how new technology has imperiously commandeered our most important feature in higher education - our ability and our expectation to make informed moral decisions in higher education. That mixture of "knowledge monopolies" (to use Harold Innis' term) and new technologies has produced a very real crisis in university education in the 21st century. This crisis is not, as is usually suggested, between the sciences and the humanities. It isn't even between that other dichotomy, those who believe that universities should be explicit training and employment centers versus those who favor a rich, general education in the classics and creative thinking.

The crisis in education is between technology and moral leadership. Moral leadership, in my view, is what is often in short supply. The roots of this are in Karl Marx and Friedrich Nietzsche in the nineteenth century as well as in Michel Foucault and Herbert Marcuse in the twentieth century. In my title to this position paper, I chose to call it "moral timidity". Perhaps that is a bit generous.

INVITED SPEAKER

ICEDS 2024

11:30-12:00 | UTC/GMT+1

Venue: Plenary Room

Assoc. Prof. Rachel Fitzgerald

University of Queensland, Australia

Assoc. Prof. Rachel Fitzgerald is an academic leader, currently serving as the Deputy Associate Dean (Academic) for the Faculty of Business, Economics, and Law at the University of Queensland. She is a Senior Fellow of the Higher Education Academy, a Future of Work Fellow, and a Certified Member of the Association of Learning Technology. Renowned as an academic leader in the digital age, Rachel specializes in Education Innovation and Technology-Enhanced Learning in contemporary higher education. Her extensive expertise extends to the global landscape, where she has spearheaded transformative teaching and learning initiatives across various institutions in the UK, Ireland, and Australia. Her impactful contributions to the field encompass research interests in micro-credentials, workplace learning, and the scholarship of teaching and learning (with AI).

Rachel's influence resonates deeply within higher education institutions, where she has played a pivotal role in shaping curriculum and digital frameworks. Her scholarly achievements have found a platform in leading journals and eLearning forums, advancing the discourse on educational innovation. Her most recent literary contribution is the book titled "Technology Enhanced Learning and the Virtual University," which has been published by Springer and is challenging norms in higher education. As an associate professor in Management, Rachel has led postgraduate programs in Corporate Innovation and Leadership, Project Management, and an e-MBA before focusing on academic leadership roles in Higher Education.

As an internationally acknowledged figure in Technology-Enhanced Learning, Rachel serves as the Senior Editor for the Journal of University Teaching and Learning Practice and Associate Editor for the Australasian Journal of Education Technology. Originally from Ireland which is still ‘home,’ she much prefers the weather in her adopted home of Queensland, Australia.

Speech Title: Navigating Next Steps in Online and Digital Learning: Adaptive Challenges for Global Higher Education

Abstract: In the aftermath of Covid-19 and with the emergence of GenAI, academic practice in higher education is at an important crossroads. The pandemic created a global emergency response to push education online (Hodges et al., 2020) and in response, many educators developed innovative and creative alternatives to traditional pedagogy to support learning and enable students to succeed. As the world returns to ‘normal’, it has become too easy to return to the pre-Covid-19 models of teaching and to forget lessons learned from innovation in online practice. We need to build upon lessons learned and explore a range of innovative practices to rethink university teaching and assessment. Traditional approaches to university education no longer fit emerging societal trends that include flexible work, working from home, and lifelong learning. Post-secondary students therefore need more flexibility from universities, as reflected in diminishing attendance in the classroom and a significant increase in students working to support their learning (Williams, 2022). The

emergence of Generative AI raises further questions about teaching and assessment practice and security. Digital online technologies present the promise of genuine alternatives for the design of learning and teaching (Mintz, 2021; Paul & Jefferson, 2019), particularly as we prepare our learners for future work and leadership in society. I discuss how teaching and assessment can be designed to maximize the use of digital technologies, leverage their affordances, and facilitate collaborative and innovative learning in ways that align with the needs of increasingly automated societies. Online education has become a critical element of university business, and 'virtual learning' is as important as the 'physical learning environment'. It is essential that as much care, if not more, is taken in how this environment looks, feels, and responds to students and staff. Done well, blended and fully online education will support current students through future-focused approaches and serve as a value add for the education of tomorrow. Here, I explore how one can conceivably create a holistic virtual university, using a range of technology-enhanced learning applications, learning tools, and good governance (Sankey et al, 2023).

Reference

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27) The difference between emergency remote teaching and online learning. Educause Review. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

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INVITED SPEAKER

ICEDS 2024

13:30-14:00 | UTC/GMT+1

Venue: Plenary Room

Principal Lecturer Panagiotis Fotaris

University of Brighton, UK

Dr. Panagiotis Fotaris, a Principal Lecturer at the University of Brighton, specialises in Game and Narrative Design, User Experience Design, and Design Thinking. With a career spanning over twenty years, Dr. Fotaris has made substantial contributions to game-based learning, the innovative use of educational escape rooms, and the seamless incorporation of generative AI into pedagogical frameworks. His commitment to academic excellence is evident from his receipt of multiple teaching awards and his influential roles at various institutions, where he has developed curricula for several courses and improved student satisfaction and engagement through innovative, industry-aligned teaching methodologies including gamification, flipped classrooms approaches, and the use of immersive technologies.

Dr. Fotaris has contributed to over 40 peer-reviewed publications, accruing more than 1300 citations, that reflect his substantial impact on both the educational and technological domains. His leadership skills are exemplified by his roles as chair of four international conferences, an active participation in over 40 technical committees, and the orchestrator of numerous educational workshops, particularly on the topic of educational escape rooms. Additionally, Dr. Fotaris contributes to the global academic community as a scientific evaluator for the European Research Executive Agency of the European Commission, assessing project proposals under the “Arts and cultural awareness and expression in education and training” theme of Horizon Europe.

Beyond the confines of academia, Dr. Fotaris’s journey encompasses a dynamic array of roles within the Creative Industries. His versatile career includes experiences as a mashup artist, radio producer, music blogger, podcaster, DJ, as well as a graphic and web designer, video editor, and a journalist specialising in video games and music. This diverse background imbues his educational initiatives with a mix of creative innovation, scholarly depth, and insightful industry perspective, significantly enriching his contributions to the field of educational technology and design.

Speech Title: Unlocking Potential: Streamlining Educational Escape Room Design with Room2Educ8 and Generative Artificial Intelligence

Abstract: Educational Escape Rooms (EERs) represent a novel approach within academic settings, aiming to enrich student learning through active engagement, teamwork, and problem-solving. Despite their benefits, the development and widespread implementation of EERs are hindered by the absence of standardised design frameworks and the intricate, time-consuming nature of tailoring experiences to unique educational contexts. To address these challenges, our presentation will highlight Room2Educ8, an innovative, student-centric framework that embodies Design Thinking principles.

Room2Educ8 serves as a comprehensive guide for educators, facilitating the design of EERs that align with their educational objectives. It provides detailed, step-by-step instructions for crucial design phases, including

understanding learner needs, defining clear goals, crafting compelling stories, creating challenging puzzles, prototyping, and executing thorough evaluation. By simplifying the EER creation process and promoting flexibility and innovation, Room2Educ8 ensures the delivery of captivating and educationally robust experiences.

Additionally, we will explore how Room2Educ8's effectiveness is markedly enhanced when integrated with Generative Artificial Intelligence. This powerful combination promotes rapid idea generation, expedites the development of prototypes, and optimises content production to cater to a spectrum of learning preferences and goals. As a result, this integration considerably lightens the workload for educators, freeing them to concentrate on refining the educational impact and effectiveness of their escape rooms.

By presenting tangible examples, tips for prompt engineering, and an EER-focused prompt library, this presentation intends to clarify the creation process of these engaging educational environments, making them more accessible to educators from diverse backgrounds

TECHNICAL SESSION 1

ICEDS 2024

Venue: Syndicate Room 1

14:10-15:40	Session 1: Technology Assisted Learning and Game-Based Learning Session Chair: Assoc. Prof. Rachel Fitzgerald, University of Queensland, Australia
DS1061 14:10-14:25	**XR Immersion for Teaching and Learning with Precise Visualization and Precise Alignment Guidance in User Perspective** **Author(s):** Lionel Jayaraj and Carlton Reeve **Presenter:** Lionel Jayaraj **Affiliation:** Staffordshire University, UK
DS1070 14:25-14:40	**Applying Reflective Game Design Frameworks (RGD) through the Lens of Design Thinking in Developing Serious Game** **Author(s):** Anjuman Shaheen, Panagiotis Fotaris **Presenter:** Anjuman Shaheen **Affiliation:** University of Brighton, UK
DS1001 14:40-14:55	**Virtual Reality Representations of Timelines in Physics Classes** **Author(s):** Oleg Yavoruk **Presenter:** Oleg Yavoruk **Affiliation:** Independent Scholar, Russia
DS1064 14:55-15:10	**Impact of Personalisation on Adoption of Technology-Mediated Learning in Workplaces** **Author(s):** Pravasi Bhushan, Atri Sengupta and Christopher Abraham **Presenter:** Pravasi Bhushan **Affiliation:** S P Jain School of Global Management, India
DS1060-A 15:10-15:25	**Assistive Technologies and their Role in Improving the Academic Performance of Students with Disabilities in the University** **Author(s):** Hussain A. Almalky **Presenter:** Hussain A. Almalky **Affiliation:** Prince Sattam Bin Abdulaziz University, Saudi Arabia
DS1050 15:25-15:40	**Implementing Gamified Adaptive Learning Environments for Effective Cyber Security Teams Education** **Author(s):** Basil Alothman **Presenter:** Basil Alothman **Affiliation:** Kuwait College of Science and Technology (KCST), Kuwait

ABSTRACT INFO.

ICEDS 2024

SESSION 1

AG1061

XR Immersion for Teaching and Learning with Precise Visualization and Precise Alignment Guidance in User Perspective

User Perspective Learning is an approach that focuses on learning by getting taught from the user's point of view (POV). Activities are generally captured from the user's perspective and compiled into a video that can be viewed on desktop displays, televisions, and mobile devices. Extended Reality (XR) applications and devices have the potential to replace traditional displays in the near future. This technology can provide a very effective way to teach learners with the freedom to view and interact. XR technology is capable of tracking moving practice models and augmenting Computer-Generated Imagery (CGI) in real-time or completely teleport the learners in a digital environment. The advancements in handheld device processing have led to significant improvements in these portable XR technologies over the years. Complex computations can be handled in a fraction of a second by modern multi-core processors. In addition to standalone devices, XR technologies have been adapted to work with mobile devices (i.e., smart phones), making them more accessible. The purpose of this research is to explore the potential of XR for user perspective learning and its impact on immersion. An XR application was developed for the experiment, providing participants with a high degree of freedom to navigate in a virtualized environment (VE). The application allows for both handheld and head-mount viewing, for the users to choose their preference. By tracking the orientation of practice models, participants are guided, and task precision is enhanced. A pilot study was conducted with Games Art and Tech students from the university to evaluate the degree of immersion. To study the immersion levels of XR technology, a statistical analysis was conducted on the collected data.

Keywords: Extended Reality, Virtual reality, Augmented Reality, game development, immersion, commercial systems.

ABSTRACT INFO.

ICEDS 2024

SESSION 1

DS1070

Applying Reflective Game Design Frameworks (RGD) through the Lens of Design Thinking in Developing Serious Game

Reflective learning is one of the key stages in experiential learning, providing essential for effective knowledge acquisition. In recent years, the recognition of games as facilitators of experiential learning has grown, highlighting their innate suitability for reflective learning. The Reflective Game Design (RGD) framework is a new tool for incorporating reflective learning into game-based leading approaches, amplifying the reflective and experiential learning process. This study discusses the practical application of the RGD framework, guided by the principles of “Design Thinking”, to create a user-centric development process. This paper presents a case study on developing a serious digital game targeting “self-awareness among young adults”. By applying the RGD framework guided by design thinking, the study adopts an iterative design process, user empathy, and reflective practices to offer insights into integrating these frameworks effectively. The positive findings from user surveys indicate a strong connection between players and the game, suggesting its potential for future educational use. This research contributes to the ongoing discourse on interactive and educational game design, providing valuable perspectives for researchers, developers, and educators alike.

Keywords: Game-Based Learning (GBL), Reflective Game Design (RGD), serious games, design thinking, experiential learning

ABSTRACT INFO.

ICEDS 2024

SESSION 1

DS1001

Virtual Reality Representations of Timelines in Physics Classes

The paper deals with educational techniques of timeline visualizations inside Virtual Reality (VR). The illusion of being in an abstract temporal reality can be applied for purposes of physics teaching. Here are described some affordances of timeline VR-demonstrations in physics classes, recommended rules for their usage, several fairly impressive and memorable models of VR timelines (Panoramas of Time, Time Jumps, Corridors of Time, Lifts of Time, etc.), which were previously tested in physics lessons. Inspirational types of timeline representations were used to physics teaching with virtual tours technologies. The concept of timelines is visualized, developed and generalized by the labyrinths of time inside virtual reality, which is easily applicable to physics teaching. The timeline-based VR app "Heroes of Scientific Revolutions" can be a starting point for learning any topic in a physics course. Students and teachers can intuitively, natural and obviously actuate and observe VR timeline models wearing ordinary, simple and cheap VR devices. The use of teaching virtual timelines can arouse students' interest in physics and improve the quality of teaching.

Keywords: Teaching inside VR, Physics Teaching, Timelines, Virtual Tours

ABSTRACT INFO.

ICEDS 2024

SESSION 1

DS1064

Impact of Personalisation on Adoption of Technology-Mediated Learning in Workplaces

Technology-mediated learning (TML) has gained popularity amongst business organisations, especially since COVID pandemic, as it allows them to offer upskilling opportunities that are geographically inclusive and cost-effective. However, high attrition levels in TML have dented its effectiveness. There have been studies in the academic world where some of the issues leading to learner attrition have been addressed through personalisation, however, there's scarcity of similar studies in workplace environments. Working professionals, unlike students, need to focus on their job role and have limited time to learn. So, extending inferences from academic world to business organisations would be erroneous. This study addresses this gap and explores how personalisation of learning can influence adoption and continued use of TML amongst employees of large organisations. A mixed-method approach was used, where we first interviewed leaders and employees of organisations to capture insights from their experiences, including understanding the various hurdles to adoption of TML and their recommendations to overcome these hurdles. Insights from interviews led us to our research model, which is based on Unified Theory of Acceptance and Use of Technology (UTAUT2). A cross-sectional study was conducted to test the various hypotheses of the model and results revealed that working professionals are willing to adopt TML if it helps them improve their performance. Our findings demonstrated that professionals are inclined to adopt TML that's personalised based on their knowledge levels, job roles and responsibilities. In line with previous studies based on UTAUT2, we found that performance expectancy associated with TML was the strongest predictor of behaviour intent to use TML. Thus, adoption will increase if TML is personalised to support individual's job performance and growth.

Keywords: Technology-Mediated Learning, Personalised Learning, TML-adoption

ABSTRACT INFO.

ICEDS 2024

SESSION 1

DS1060-A

Assistive Technologies and their Role in Improving the Academic Performance of Students with Disabilities in the University

The purpose of this study is to identify the availability of assistive technologies for students with disabilities in their universities from their point of view, and to verify the extent of providing training materials and support for the use of assistive technologies. The study also seeks to know the use of assistive technologies for students with disabilities in their university, and to identify the role of using technologies to improve the academic performance of students with disabilities in the university from their point of view at King Saud University.

To achieve the objectives of the study, the descriptive approach was used through the researcher's design of the study tool, which is the questionnaire. It consisted of two parts: the first part deals with the primary data of the demographic information of the participants. While the second section consists of (50) items distributed over four domains, as follows: The first domain is the availability of assistive technologies for students with disabilities in the university. The second domain is the availability of training materials and the necessary support for the use of assistive technologies for students with disabilities. The third domain, the extent to which assistive technologies are used for students with disabilities in the university. The fourth domain, the role of the use of assistive technologies in improving the academic performance of students with disabilities in higher education. It was applied to 76 male and female students from the study population.

The study concluded that assistive technologies for students with disabilities are available at a high level, and the results also showed that training materials and the necessary support are available at a high level. The results also showed that the use of assistive technologies for students with disabilities in their university is available at a high level. The study also concluded that the role of using assistive technologies in improving the academic performance of students with disabilities in the university is very high.

ABSTRACT INFO.

ICEDS 2024

SESSION 1

DS1050

Implementing Gamified Adaptive Learning Environments for Effective Cyber Security Teams Education

This research explores the integration of gamification and adaptive learning techniques in cybersecurity education, specifically enhancing cybersecurity teams' learning experience and efficacy. The primary contribution of this research is developing an innovative educational platform that customises learning content based on individual and cyber security experience team performance. This platform introduces gamified elements, such as interactive challenges, role-playing scenarios, and reward systems, to cultivate a highly engaging and motivational learning environment. Empirical results from the deployment of this system indicate a substantial improvement in both individual and collective cybersecurity knowledge and skills. The platform's adaptability ensures the continuous relevance of the learning content, aligning with the latest developments and trends in the cybersecurity field. This approach presents a significant shift from traditional cyber security education methods, proposing a more engaged and interactive model of cybersecurity gaming and education that promises to better prepare teams knowledge for the evolving landscape of cyber awareness, threats, and security measures.

Keywords: Education Innovation, Gamification, Adaptive Learning Systems, Educational Game Design

TECHNICAL SESSION 2

ICEDS 2024

Venue: Syndicate Room 2

14:10-15:55	**Session 2: AI in Education, Digital Learning, and Innovative Teaching Methods** **Session Chair: Principal Lecturer Dr. Panagiotis Fotaris, University of Brighton, UK**
DS1039-A 14:10-14:25	**Understanding the Development of the Intercultural Sensitivity of Personnel in the U.S. Armed Forces** **Author(s):** Maria Sheila Balosbalos Arado **Presenter:** Maria Sheila Balosbalos Arado **Affiliation:** Defense Language Institute Foreign Language Center, USA
DS1005 14:25-14:40	**Driving Student Engagement and Motivation with the Cloud-based Flipped Classroom Model in BIM Education** **Author(s):** Calvin Keung **Presenter:** Calvin Keung **Affiliation:** City University of Hong Kong, China
DS1106-A 14:40-14:55	**Nurturing Future Educators: Exploring New Frontiers of Collaborative Teacher Training Model** **Author(s):** Noam Topelberg **Presenter:** Noam Topelberg **Affiliation:** Bar Ilan University, Israel
DS1072 14:55-15:10	**Immediate vs. Delayed Corrective Feedback in Online English Learning: Analyzing Emotional Engagement through Facial Expressions** **Author(s):** Wanying Liang, Zheng Shi, Guang Chen and Wei Cheng **Presenter:** Wanying Liang **Affiliation:** Beijing Normal University, China
DS1058 15:10-15:25	**A Case Study for Fostering Civic Engagement: Theory for Developing Environmental Stewardship in Adolescents through Outdoor Recreation and Student-driven Long-term Research in Science Classes** **Author(s):** Carolan H. Ziegler **Presenter:** Carolan H. Ziegler **Affiliation:** Edgewood College, USA
DS1053 15:25-15:40	**DINO. A DIfferently NOrmal Way of Teaching** **Author(s):** Ludovica Rizzo, Stefania Pinnelli **Presenter:** Ludovica Rizzo **Affiliation:** University of Macerata and University of Salento, Italy

DS1032-A 15:40-15:55	**Research on the Contradiction and Resolution in Group Meeting Training Mode Between Tutors and Students: An Activity Theory Perspective** **Author(s):** Xiong Zhuoyan, Kang Wei **Presenter:** Xiong Zhuoyan **Affiliation:** Xi'an International Studies University, China

ABSTRACT INFO.

ICEDS 2024

SESSION 2

DS1039-A

Understanding the Development of the Intercultural Sensitivity of Personnel in the U.S. Armed Forces

Given the nature of recent and upcoming military engagements, there is growing interest in incorporating more cultural learning into US military training in order to better prepare military personnel to respond to security challenges in international theaters of operation as part of the increasingly diverse US Armed Forces. Costly mistakes and painful lessons from the United States' involvement in Afghanistan and Iraq since the early 2000s heightened this need and convinced the Department of Defense that its military personnel must have the necessary knowledge, skills, and intercultural competence to meet the demands of frequent and demanding complex multicultural engagements.

This presentation shares the results of a multi-year study of U.S. military personnel from a language school in Monterey, California. The study contributes to the state of knowledge about the level of intercultural sensitivity of U.S. military personnel as well as personal and professional factors that contribute to more ethnorelative intercultural orientations. To date, little work has been conducted to measure and understand the intercultural sensitivity of U.S. military personnel.

The research revealed that a majority of subjects have Minimization and Defense/Polarization orientations, which is consistent with other professionals, and that most significantly overestimated their intercultural sensitivity to a greater degree than subjects in other studies. Less than five percent scored in the lowest category, Denial. Less than five percent scored in the fourth-highest category, Acceptance, while none scored at the highest level, Adaptation. Personal and demographic factors contributing most to intercultural sensitivity were family upbringing, living in culturally diverse areas, intercultural encounters, foreign language proficiency, and ethnicity and race. The most influential professional factors were integrating culture into language training, ongoing cultural training, cultural knowledge, the frequency of intercultural encounters in multiple contexts, and leadership attitudes. The findings provide valuable insights for scholars, policymakers, curriculum developers, military leaders, and others actively involved in working with and training U.S. military personnel.

Keywords: Culture in Language learning, Intercultural Sensitivity of the U.S. Armed Forces Personnel, cross-cultural competence, United States military 3Cs

ABSTRACT INFO.

ICEDS 2024

SESSION 2

DS1005

Driving Student Engagement and Motivation with the Cloud-based Flipped Classroom Model in BIM Education

The advent of COVID-19 has precipitated the adoption of online learning modalities, allowing educators to transition from conventional teaching methods to a blended learning approach. This study investigates the implementation of an interdisciplinary, project-based Building Information Modelling (BIM) course, delivered through a cloud-based flipped classroom model. A centralised portal was employed, facilitating the seamless integration of BIM-TV, cloud gaming, and BIM server. The results of this study underscore the potential of flipped classrooms that incorporate cloud technology into pedagogical strategies to enhance student engagement, active learning, and self-directed learning. This innovative methodology offers students and instructors a high degree of flexibility and accessibility, fostering active engagement, and facilitating personalised learning experiences through the utilisation of advanced digital educational tools. Leveraging blended learning, traditional BIM education can exploit the advantages of technology while maintaining the invaluable aspect of face-to-face interaction.

Keywords: Flipped classroom, Building Information Modelling (BIM), Cloud computing platform, Blended learning

ABSTRACT INFO.

ICEDS 2024

SESSION 2

DS1106-A

Nurturing Future Educators: Exploring New Frontiers of Collaborative Teacher Training Model

In 2021, the Israeli Council for Higher Education introduced the Vadmani-Inbar framework, marking a pivotal shift in teacher training. This framework, which replaced the Ariav framework, prioritizes clinical training to bridge the inherent gap between theory and practice in teacher training. As academic coordinator of clinical training in the teacher certificate school of Bar-Ilan University's faculty of education, the presenter has been actively involved, over the last few years, in developing and assimilation of a model for training tracks that allows optimal implementation of the clinical core component of the new framework. Over the course of this period two fundamental processes were developed: the creation of a non-disciplinary mandatory course conducted within schools, promoting theory-practice alignment through observations, reflective discourse, and workshops; and the establishment of a specialized disciplinary clinical training track that ensures close coordination between academic leaders, teachers, and schools. Through these unique academic routs, students are actively engaged in disciplinary and pedagogical content, working extensively within and outside the classroom. They are expected to generate new relevant knowledge and engage in continuous reflective dialogues in order to contribute to the development of a knowledge base that is continuously evolving. This training model encompasses a diverse range of learning modalities, including face-to-face and individual instruction, as well as online learning facilitated by learning management system (LMS), and artificial intelligence (AI) tools. Formative and summative evaluations of each student are conducted collaboratively by teachers and academic coordinators, considering various Knowledge, Skills, and Abilities parameters (KSA). Collaboration with schools across diverse sectors in Israel offers students the opportunity to integrate into different educational settings, fostering discourse and cross-sector acquaintances.

This lecture will focus primarily on an action study of this clinical training track, that won this year's Council for Higher Education of Israel call for proposals under the category "experience-integrated academy". Analyzing different representations of the current academic year will allow us to examine how the process, led by academic supervisors and teachers, contributes to fostering continuous collaborations of learning communities among students, educators, school personnel, and education professionals. The presentation will provide insights into clinical training, both in terms of the transformative potential of Vadmani-Inbar's framework, as well as its potential to improve teacher education in Israel and elsewhere, thereby improving education quality.

Keywords: Clinical teacher training, teachers training in Israel, Theory and practice, Vadmani Inbar framework

ABSTRACT INFO.

ICEDS 2024

SESSION 2

DS1072

Immediate vs. Delayed Corrective Feedback in Online English Learning: Analyzing Emotional Engagement through Facial Expressions

This study examines the emotional engagement of 8 adult EFL learners divided into two groups receiving either immediate or delayed corrective feedback. Utilizing deep learning-based facial recognition technology, the study quantifies the learners' emotional responses and assesses their emotional engagement through affective computing models. Findings suggest that learners receiving immediate feedback showed higher emotional engagement than those in the delayed feedback group, despite significant emotional variability among individuals. The application of machine learning technology in data analysis offers a detailed and objective insight into the emotional states of EFL learners, surpassing traditional assessment methods.

Keywords: Emotional Engagement, Corrective Feedback, Deep Learning, Facial Expression Analysis, EFL Adult Learners

ABSTRACT INFO.

ICEDS 2024

SESSION 2

DS1058

A Case Study for Fostering Civic Engagement: Theory for Developing Environmental Stewardship in Adolescents through Outdoor Recreation and Student-driven Long-term Research in Science Classes

This case study explores an application of the theory that practicing science outdoors empowers students to be agents of change and later identify as environmental stewards. Decades of research in the scientific community have contributed to an understanding of the value of nature for child and adult development (Mann et al, 2022). However, millennia of research from Indigenous communities around the globe have already identified the value of the human-to-land connection. Scientific exploration that incorporates Traditional Ecological Knowledge could provide an opportunity to connect students to the land in a concrete and sustainable way – encouraging future student involvement in global ecological issues. This case study, from the perspective of a non-Indigenous author in a predominantly non-Indigenous population of adolescents, explores implementation, data collection, and establishment of procedures for student research and long-term data sets in an ever-changing project. In addition, it will discuss the benefit of outdoor place-based education in fostering environmental stewardship in students.

Keywords: Place-based education, environmental stewardship, sustainability, Indigenous science, outdoor recreation, Traditional Ecological Knowledge, civic action

ABSTRACT INFO.

ICEDS 2024

SESSION 2

DS1053

DINO. A DIfferently NOrmal Way of Teaching

Although several differentiation models have been developed so far, the design of plural learning pathways remains complex. Besides the lack of resources in terms of time and opportunities to share materials and experiences, it is even more difficult to control the factors on the basis of which differentiated activities are designed. Therefore, a web platform was built to sustain and facilitate the whole process. Furthermore, to provide greater control and understanding, several models of differentiation at disposal were reviewed and partially reorganized into a new framework. A first testing phase was conducted with a cluster of future teachers in the final stage of their training. The second phase involves the completion of the sections and the implementation of parts supported by AI for the creation of personalized learning paths.

Keywords: Differentiated instruction, Teaching, Web platform

ABSTRACT INFO.

ICEDS 2024

SESSION 2

DS1032-A

Research on the Contradiction and Resolution in Group Meeting Training Mode Between Tutors and Students: An Activity Theory Perspective

Graduate student group meetings, as a crucial aspect of supervisor-led student cultivation, significantly influence students' academic thinking, character, and innovation abilities. The quality of mentor-student interaction plays a vital role in enhancing overall student development (Austin, A. E., 2002; Lunsford, L. G., 2016; Dolenc, B., & Doğan, G., 2016; Zhong, W., & Liu, J., 2015). Drawing upon the framework of Activity Theory (Vygotsky, 1978; Leont'ev, 1978, 1981; Engeström, 1987, 2001), this study focuses on the main contradictions and conflicts encountered by four Teaching English as a Subject M.A. students and two English major tutors during group meetings. Employing a qualitative case study approach(Yin, 2018), the research examines how tutors and students cope with these conflicts and aims to achieve professional development(Marwan, A., & Sweeney, T., 2019). Specifically, the study investigates: (1) the contradictions and conflicts faced by the mentors in the group meeting training model, and (2) the strategies employed to address and resolve these conflicts. Findings reveal that conflicts among student-tutors primarily arise from the disparity between academic expectations and actual abilities, affective-cognitive motivation mismatches, and communication barriers. Resolving these conflicts relies on clear role recognition and positive emotional interaction between students and supervisors, which are key factors in promoting supervisors' professional development. Additionally, two-way positive communication among student-tutors, including sharing experiences and exchanging concerns, plays a significant role in conflict resolution.

Keywords: Activity theory, Group meeting training model, Contradiction, Professional development

TECHNICAL SESSION 3

ICEDS 2024

Venue: Syndicate Room 1

16:15-18:00	Session 3: Education Policy, Professional Development, and Psychology Session Chair: Lecturer Carolan H. Ziegler, Edgewood College, USA
DS1101-A 16:15-16:30	**How Academics Negotiate with University-industrial Collaboration: A Case Study in Two Universities in Mainland China** **Author(s):** Manhong Lai **Presenter:** Manhong Lai **Affiliation:** The Chinese University of Hong Kong, China
DS1031-A 16:30-16:45	**Curriculum Enhancement for Improving the Learning Experience of Taught Postgraduate Students** **Author(s):** Yue Chen, Usman Naeem, Tijana Timotijevic and Eliane Bodanese **Presenter:** Yue Chen **Affiliation:** Queen Mary University of London, UK
DS1013-A 16:45-17:00	**The Level of Possession of 21st-century Skills by Social Studies Students at the College of Education at Qatar University and Their Impact on Their Professional Development** **Author(s):** Manal Hendawi **Presenter:** Manal Hendawi **Affiliation:** Qatar University, Qatar
DS1107-A 17:00-17:15	**The Interconnectedness of Empathy Development and Intercultural Engagement** **Author(s):** Tsz Yui Wong and Art Tsang **Presenter:** Tsz Yui Wong **Affiliation:** The Chinese University of Hong Kong, China
DS1103-A 17:15-17:30	**Educating Empathy: Combining Active Listening and Moral Discovery to Facilitate Prosocial Connection** **Author(s):** Erika D Price and Lisa B Johnson **Presenter:** Erika D Price and Lisa B Johnson **Affiliation:** Brigham Young University, USA
DS1102-A 17:30-17:45	**One-on-one Mentoring: A Pathway to Improve Academic Writing in First-year ESL Students** **Author(s):** Eric Ho **Presenter:** Eric Ho **Affiliation:** The Hong Kong Polytechnic University, China

DS1030-A 17:45-18:00	**The Synergy of Success: Enhancing Academic Competence and Student Belonging through Extra-Curricular Engagement** **Author(s):** Kok Ho Huen, Costis Papageorgakis, Anastasios Tombros and Yue Chen **Presenter:** Kok Ho Huen **Affiliation:** Queen Mary University of London, UK

ABSTRACT INFO.

ICEDS 2024

SESSION 3

DS1101-A

How Academics Negotiate with University-industrial Collaboration: A Case Study in Two Universities in Mainland China

The Chinese government promulgated several policies to encourage academics to participate in applied projects. As collaboration with industry on applied projects consequently increased, previous research found that the external funders placed constraints on the applied projects in which the academics were involved. Academics have tried to find a negotiated space to balance the demands of external funding and academic concerns. Using a qualitative research method, this study interviewed 32 academic informants at one first-tier university and one second-tier university in mainland China. Our study found that, first, funders had strong determination to control the applied research topic, agenda and outputs. Second, academics found it hard to incorporate academic considerations into the research agenda as the process of applied projects was under funders' tight control. They needed to spend time to persuade funders to lower their expectations and lessen the gap between their existing practices to ensure affordable risk. Third, the negotiated space involved individual agency, disciplinary characteristics, university reputation and exploitation of graduate students. The funder's practical needs compressed the negotiated space to a very limited extent. Only academics who worked at reputed universities or those eager to try protecting limited research boundaries could earn some more negotiated space.

ABSTRACT INFO.

ICEDS 2024

SESSION 3

DS1031-A

Curriculum Enhancement for Improving the Learning Experience of Taught Postgraduate Students

Postgraduate taught programmes (PGT) in the UK are typically shorter in duration than those in other parts of the world. This presents particular challenges but also makes the UK one of the largest recruiters and education providers of PGT students. In this presentation, we introduce a curriculum enhancement strategy that was developed and implemented to improve the learning experience of PGT students in the School of Electronic Engineering and Computer Science at Queen Mary University of London.

The strategy consisted of two main parts: a programme restructuring based on a semi-fixed diet approach and revamping the PGT projects. The programme restructuring involved reducing the number of elective modules and creating clear pathways to strengthen the identities of the programmes while ensuring that all required learning outcomes were met. The revamping of the PGT projects involved redesigning the project process timeline, which introduced a series of formative assessment checkpoints and the final deliverable of the project assessments that encouraged students to write more concisely.

To evaluate the impact of the curriculum enhancement strategy, we analysed the results of the past three years of the Postgraduate Taught Experience Survey (PTES). Although it is difficult to draw a causal conclusion, the PTES results confirm an upward trend in the satisfaction rates of PGT students. Specifically, the results show that students are more satisfied with teaching and learning, engagement, assessment and feedback, skill development and overall learning experience.

In addition to presenting the motivation and methodology adopted for developing the curriculum enhancement strategy, we will also share our reflections and good practices in context and make recommendations on how to adapt the strategy in other contexts.

ABSTRACT INFO.

ICEDS 2024

SESSION 3

DS1013-A

The Level of Possession of 21st-century Skills by Social Studies Students at the College of Education at Qatar University and Their Impact on Their Professional Development

This study aims to address the problem statement, which focuses on assessing the level of possession of 21st-century skills by social studies students at the College of Education at Qatar University.

The research employs a descriptive approach to assess the acquisition of 21st-century skills by social studies. The research utilizes a 50-item questionnaire to collect data, encompassing three core dimensions. These dimensions include self-skills, comprising sub-skills such as self-management, accountability, resilience, and communication. Additionally, scientific and information skills are part of the assessment, consisting of sub-skills like critical thinking, problem-solving, creativity, and digital literacy. Furthermore, job-related skills are evaluated, incorporating sub-skills such as productivity, collaboration, negotiation, and decision-making.

The results of the study showed that the general level of both the scientific and information skills and self-management domains of possession 21st-century skills is high and the level of job-related skills dimension was average. Some recommendations was proposed in light of the study results, such as ensure that 21st-century skills are integrated into the core curriculum across various disciplines. collaborate with faculty to incorporate these skills into course content, assignments, and assessments, similarly Provide professional development opportunities for faculty to enhance their understanding of 21st-century skills and effective teaching strategies to foster these skills in students, and encourage the student to format clubs and organizations focused on various aspects of 21st-century skills, including leadership, innovation, and community engagement.

Keywords: 21st-century, Social studies, Professional development, Qatari students

ABSTRACT INFO.

ICEDS 2024

SESSION 3

DS1107-A

The Interconnectedness of Empathy Development and Intercultural Engagement

To promote “peace at its core”, empathy is indispensable; empathy is “a process that allows people to imaginatively enter the world of another person, see it from the other person’s point of view, and feel the emotions the other person is experiencing” (Broome, 2015, p.287). It is therefore essential for peacebuilding and all the more important considering how conflicts and hardships have been plaguing humanity worldwide nowadays. The present study, funded by The Spencer Foundation, set out to investigate how empathy can be developed through intercultural engagement in an Asian city, Hong Kong. Based on a phenomenological case study approach, data were collected via questionnaires, interviews, and logbooks from freshmen from different backgrounds. The presentation will cover a brief introduction to the construct of empathy, the participants' different intercultural engagement experiences, and how these experiences shape their empathy development. The findings bear important implications for researchers, educators, and policymakers.

ABSTRACT INFO.

ICEDS 2024

SESSION 3

DS1103-A

Educating Empathy: Combining Active Listening and Moral Discovery to Facilitate Prosocial Connection

Cognitive and dispositional empathy is decreasing among students worldwide, particularly those at university. This paper looks at the effects of encouraging empathetic positioning in divisive topics by teaching listening skills and moral discovery to university students. Two groups of university students were given the assignment to interview individuals they disagreed with on social issues (e.g. abortion, gun control, legalization of drugs, involvement in Ukraine, etc.). One group completed the assignment with no other instruction. The second group completed the assignment after receiving instruction in active listening and Jonathan Haidt's theory of moral foundations in politics. Both groups' responses were coded for prosocial markers. Results show that when students are given both active listening techniques and awareness of moral foundations, they are significantly more likely to have socially positive interactions with those they disagree with on issues as compared to those who listen passively to ideological opponents. As students interacted with those they disagreed with, they evidenced prosocial behaviors of acknowledgement, validation, and even commonalities with their opponents' viewpoints, signifying a heartening trend of empathetic connection and inclusion that is waning in students. The research suggests that empathy is a skill that can be nurtured by active listening, but that it is more fully cultivated when paired with the concept of moral foundations underpinning political ideologies. These findings shed light on how to create more effective pedagogies for social and emotional learning and inclusive mindsets.

Keywords: Empathy, inclusion, Listening skills, Moral discovery, Pedagogy, Prosocial behavior

ABSTRACT INFO.

ICEDS 2024

SESSION 3

DS1102-A

One-on-one Mentoring: A Pathway to Improve Academic Writing in First-year ESL Students

First-year undergraduate students, particularly those who are English as a Second Language (ESL) learners, often face significant hurdles when tasked with academic essay writing. To assist these students in navigating the complexities of academic writing, universities often provide language support services. One such service is the provision of weekly one-on-one mentoring sessions, designed to identify and address individual writing challenges and provide tailored advice. This study evaluates the impact of these mentoring sessions on students' essay writing skills from the perspective of their own learning experiences. The study explores the reasons students choose to use this service and their perceptions of its effect on their essay writing abilities. Additionally, it collects student feedback on possible enhancements to the service. The data for the study was obtained through semi-structured interviews with 20 ESL first-year undergraduate students who participated in the mentoring program, attending a series of 10 mentoring sessions over the course of a semester. The findings reveal that these weekly mentoring sessions took various forms and were sought out by students who felt their learning needs were not met in traditional classroom settings or who had identified specific writing challenges. The participants reported improvements not only in their writing skills but also in their psychological approach to essay writing. Furthermore, they provided constructive feedback on how the program could be improved, particularly in terms of scheduling flexibility. This study thus provides meaningful insights into the role and effectiveness of weekly one-on-one mentoring sessions in enhancing academic essay writing skills among first-year ESL students.

Keywords: Writing, Consultation, Mentor, Learning process, Personalised services

ABSTRACT INFO.

ICEDS 2024

SESSION 3

DS1030-A

The Synergy of Success: Enhancing Academic Competence and Student Belonging through Extra-Curricular Engagement

Extra-curricular activities are essential to students as they offer practical experiences, skill diversification, networking opportunities, and personal growth that collectively contribute to students' success both academically and professionally. They also play a key role in cultivating a profound sense of belonging. However, despite these benefits, student engagement in extra-curricular activities often falls short of expectations, primarily due to non-compulsory nature and the absence of academic credits. In this talk, we present a model for elevating student engagement in extra-curricular activities. This model has evolved organically over several years of practical experience. It strikes the balance of being serious (building academic competence) and fun (achievable, enjoyable, and rewarding). The feedback received from both students and staff has been very positive.

The work presented stems from a collaborative project on "Building Belonging", involving 12 UK universities. Drawing insights from a comprehensive literature review, the collaborative project, and direct feedback from students, it is evident that extra-curricular activities play a crucial role in fostering community building and nurturing a strong sense of belonging. However, the challenge lies in encouraging robust student engagement to fully realize the impact of extra-curricular activities. We discuss this challenge together with other considerations when designing extra-curricular activities, including alignment with learning outcomes, diversity of student needs, and time and resource constraints. Our model was developed with an iterative process, involving continuous feedback from students in a co-creation loop. This iterative approach ensures that the model remains dynamic and responsive to the evolving needs and preferences of the student community. The model provides educators with a practical checklist and recommendations, offering guidance on developing a well-planned and interlinked series of extra-curricular workshops and activities. By incorporating these insights, educators can enhance the effectiveness of their initiatives, fostering a more inclusive, engaging, and impactful extra-curricular experience for students.

ONLINE SESSION 1

ICEDS 2024

Zoom ID: 853 4715 7096
Password: ICEDS2024

10:00-11:45	**Online Session 1: Educational Information Technology and Digital Learning** **Session Chair: Asst. Prof. Hilary Ng, Hong Kong Metropolitan University, China**
DS1076 **10:00-10:15**	**An Experimental Study on College Students Communicating Chinese Stories with the Assistance of AI Translation** **Author(s):** Yang Feng **Presenter:** Yang Feng **Affiliation:** Zhejiang International Studies University, China
DS1027 **10:15-10:30**	**The Influence of CodeCombat on Computational Thinking in Python Programming Learning at Primary School** **Author(s):** Wan Chong Choi and Iek Chong Choi **Presenter:** Wan Chong Choi **Affiliation:** Illinois Institute of Technology, USA
DS1078 **10:30-10:45**	**Relations of Customized Recommendation and User Satisfaction in Library Service: A Regulated Mediation Model in Psychological Dimension** **Author(s):** Danning Wu **Presenter:** Danning Wu **Affiliation:** Zhejiang Conservatory of Music, China
DS1017 **10:45-11:00**	**Analysis of the Use of Artificial Intelligence Tools in the Training of Future Teachers** **Author(s):** Jarassova S. Gulzhan, Abdigapbarova Ulzharkyn M, Issabayeva Darazha N, Abdulkarimova Glyussya A, Zhiyenbayeva Saira N and Aitenova Elmira **Presenter:** Issabayeva Darazha **Affiliation:** Al-Farabi Kazakh National University, Kazakhstan
DS1066 **11:00-11:15**	**Perceived Usefulness as a Predictor of Second Language Learners' Continuance Intention: Unveiling a Serial Multiple Mediation Model Involving Self-Efficacy and Flow in Language Learning Application** **Author(s):** Ting Lyu, Keying Li, Xiao Xiao **Presenter:** Ting Lyu **Affiliation:** Shanghai Normal University Tianhua College, China
DS1055 **11:15-11:30**	**SmartICT Laboratory, Higher School of Education and Training, Mohammed First University, Oujda, Morocco** **Author(s):** Hajar Makhoukhi and Sarra Roubi **Presenter:** Hajar Makhoukhi **Affiliation:** SmartICT Laboratory - Higher School of Education and Training - UMP, Morocco

DS1047 **11:30-11:45**	**A Study on the Current Situation and Enhancement Strategies of Informal Learning Motivation of College Students Based on Online Learning** **Author(s):** Wenfeng Wu, Hairu Yang, Yan Fu, Qiuhong Li and Yuqi Liu **Presenter:** Wenfeng Wu **Affiliation:** China West Normal University, China

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1076

An Experimental Study on College Students Communicating Chinese Stories with the Assistance of AI Translation

Recognizing the deficiency in English writing and international communication skills among Chinese college students, along with limited communication of Chinese culture and China's story globally, this study organized a six-month-long experiment on the international communication of China's modernization achievements with 121 college students from a university in China. The results revealed that 90% of the students communicated the story of China through the English self-media application "AI-assisted Translation+ Image-Text Translanguaging", and their English application ability and international discourse and communication ability improved notably. Furthermore, there were significant improvements observed in their learning attitudes, career aspiration, and plans for higher education, and their scores on the final exams of the two English major courses increased by 18%. Meanwhile, they befriended numerous foreign netizens who lauded contemporary China's modernization via the internet, and this experience exposed them to multilingual cultures, thereby expanding their international perspectives. Whereas, in the control group, who 山 d not participate in the activity and maintained their original state of learning and living, there was no significant change in the above test indexes before and after the experiment. This experiment accumulates experience for the reform of foreign language teaching in Chinese colleges

Keywords: AI-assisted translation, Image-text translanguaging, Chinese modernization achievements, Chinese university students, International communication experiment

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1027

The Influence of CodeCombat on Computational Thinking in Python Programming Learning at Primary School

In an age of rapid technological development, primary schools now teach programming to young students, focusing on developing their computational thinking, problem-solving, and ability to use computers to create solutions. However, fostering computational thinking skills in younger students was a challenging task. The serious game CodeCombat has become a potential resource for instructing young students in primary schools on basic programming principles using Python.

This study delved into the role of the serious game CodeCombat in advancing computational thinking competencies among primary school students undertaking Python in Macao. Using a quasi-experimental pretest-posttest approach, we examined 49 grade-one students over a two-week Python programming course facilitated by CodeCombat. The Computational Thinking Scale (CTS), encompassing Creativity, Cooperativity, Algorithmic Thinking, Problem Solving, and Critical Thinking, was employed to measure shifts in computational thinking before and after the teaching experiment.

Data analysis through paired-sample t-test highlighted notable progress in computational thinking skills, with marked improvements specifically in Creativity, Critical Thinking, Algorithmic Thinking, and Problem Solving. However, Cooperativity did not exhibit the same upward trend, implying that CodeCombat's impact was more pronounced on solitary cognitive capabilities than collaborative skills. Moreover, the correlation between different dimensions indicated that these computational thinking skills were mutually reinforcing, suggesting that enhancing one might contribute to the development of others. The findings endorsed that game-based learning is effective in programming education and recommended integrating CodeCombat to improve computational thinking in learning Python programming in primary school.

Keywords: Gamification of learning, Serious game, Computational thinking, CodeCombat, Python programming, K-12 Programming education

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1078

Relations of Customized Recommendation and User Satisfaction in Library Service: A Regulated Mediation Model in Psychological Dimension

With the development of digital technologies and 'smart' concepts in recent years, customized recommendation of resources and service has been implemented in many academic and public libraries. The adoptive efficiency of customized recommendation and associated influencing factors then receive greater research interests. This paper is expected to elucidate the ambiguity in psychological domain. A regulated mediation model is, therefore, proposed to describe the relations within customized recommendation, perceived value, self-efficacy and user satisfaction, and tested by analyses of correlation, bootstrapping and multiple linear regression on 649 questionnaire outcomes. Results indicate a) customized recommendation has a positively influential relation with user satisfaction, b) perceived value positively mediates this influential relation, c) self-efficacy positively regulates this influential relation and the mediating effect of perceived value. Finally, practical advice on reader-centred library infrastructure and sustainable user satisfaction is briefly discussed

Keywords: Customized Recommendation, User Satisfaction, Perceived Value, Self-efficacy, Regulated Mediation

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1017

Analysis of the Use of Artificial Intelligence Tools in the Training of Future Teachers

The study is aimed at identifying and predicting factors that positively or negatively affect the attitudes of future teachers-philologists about the use of artificial intelligence technology for learning and teaching. Based on the components of the technology adoption model, the authors developed a questionnaire for Kazakh students of the pedagogical specialty studying at Abai University. The results of the survey confirm the high intention of future teachers to the use of AI applications for learning and teaching. Self-efficacy, anxiety, expected benefit, and ease of use were considered as factors.

Keywords: Artificial intelligence, Future teachers-philologists, Practical training, Technology adoption model, Self-efficacy

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1066

Perceived Usefulness as a Predictor of Second Language Learners' Continuance Intention: Unveiling a Serial Multiple Mediation Model Involving Self-Efficacy and Flow in Language Learning Application

This research, involving 134 EFL students using mobile language learning apps, aimed to explore the intricate connections among perceived usefulness, self-efficacy, flow experience, and continuance intention. Participants completed assessments for perceived usefulness, self-efficacy, flow experience, and their intention to continue using the apps. Through regression analyses, the study uncovered several indirect paths linking perceived usefulness to the intention of continuing app usage. Specifically, three pathways emerged: Firstly, perceived usefulness directly positively impacted users' desire to persist with language learning apps. Secondly, both self-efficacy and flow independently acted as partial mediators between perceived usefulness and the intention to use these apps. Thirdly, self-efficacy and flow sequentially mediated the link between perceived usefulness and the continued intention to use language learning apps. These findings not only confirm the connection between perceived usefulness and sustained app usage but also highlight the crucial roles of self-efficacy and flow in mediating this relationship. They significantly contribute to expanding the Technology Acceptance Model's relevance within the domain of language learning apps. These insights provide valuable guidance for app designers, emphasizing the importance of encouraging learners to utilize social functions within apps to enrich their engagement in interactive language learning experiences.

Keywords: Perceived usefulness, Self-efficacy, Flow, Continuance intention

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1055

Multi-Label Emotion Classification of Online Learners' Reviews Using Machine Learning

Text- based emotion recognition is one of research areas widely developed in applied computing, but it is highly limited when dealing with online learners. In this study, we evaluate the performances of 13 multi-label classification machine learning-based methods for automatic recognizing of online learners' emotions, 12 of them are problem transformation methods and 1 is an adaptation algorithm method. The experiments are carried out using a dataset of online learners' reviews sourced from Coursera and manually multi-labeled with the emotions: Enjoyment, Excitement, Satisfaction, Frustration, Boredom, and Confusion. Our best results in term of Hamming Loss and Micro-averaged F1 Score are obtained using Random Forest classifier and classifier chains approach, while the best Macro-averaged F1 Score was obtained using Decision Tree classifier and binary relevance approach.

Keywords: Online Learning, Emotions Recognition, Machine Learning, Multi-label Classification

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1047

A Study on the Current Situation and Enhancement Strategies of Informal Learning Motivation of College Students Based on Online Learning

The rapid advancement of internet technology and its extensive integration into education have empowered learners to participate in diverse learning activities anytime and anywhere through online platforms. This integration has progressively blurred the lines between formal and informal learning. Unlike the structured oversight of formal learning, informal learning demands greater self-discipline from learners. Motivating students to spontaneously and actively engage in learning and achieve substantial results has become a significant concern. This study adopts the literature research method, interview analysis method, and questionnaire survey method to explore the current situation and differences in learners' motivation for online informal learning. The research involved 132 college students with experiences in online informal learning. The study results reveal that the overall performance of college students' motivation in informal learning is moderate. Specifically, interpersonal development, career growth, social responsibility, and cognitive interest demonstrated moderate levels, whereas external advice and escape from routine motivation levels were relatively low. Drawing insights from detailed research data and interviews, and considering both internal and external motivation, this study proposes a series of practical learning strategies to enhance the motivation level in online learning among college students.

Keywords: Online learning, Motivation, Learning strategies, Informal learning

ABSTRACT INFO.

ICEDS 2024

ONLINE SESSION 1

DS1079

Risks and Precautionary Measures when Using ChatGPT to Enhance College Students' Learning: Analysis based on Surveys Completed by College Students Nationwide

The strategic relationship between "education, science and technology, and talents" was highlighted in the Communist Party of China's 20th National Congress report. OpenAI, an American artificial intelligence research laboratory, introduced ChatGPT, a novel chat robot model, last year. Since then, it has gained popularity online and is being improved iteratively. Though many students are exploring its potent features, it has also raised questions in academic circles. To investigate the hazards and preventative measures associated with the use of ChatGPT in college student learning, a nationwide sample of college students was chosen through a questionnaire survey. According to the survey, most students think there are risks associated with ChatGPT, including data leakage, improper use, academic dishonesty, and information distortion. According to the poll, most students think that using ChatGPT carries hazards such information distortion, algorithmic discrimination, inappropriate use, data leakage, and ideological errors in addition to academic dishonesty. Adopting both internal and external measures is necessary to prevent dangers. Legal tools should be employed externally to bolster oversight, and stringent accountability procedures should be put in place. Personal identity and the capacity for self-control should be improved inside.

Keywords: ChatGPT, Learning application, Risk and prevention.

DELEGATE

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