The 1st International Workshop on Metaverse and Artificial Companions in Education and Society (MetaACES 2022)

PROGRAM

June 24, 2022 (Friday) * https://time.is/Hong_Kong	
09:20 – 09:30	**Check-in to Zoom Meeting**
09:30 – 10:00	**Session 1A: Metaverse** **Session Chair: Chun-Hung Li,** **Autoba Limited** 012 A Virtual Environment for Learning English with Metaverse and Natural Language Processing Wing-Kwong Wong, Chia-Ching Wu and Yu-Fen Yang 011 Deploying Operational Companion-Based Learning Activities in the Metaverse: A Realistic-Enough Approach Emmanuel G. Blanchard, Jeffrey Wiseman and Susanne P. Lajoie
09:30 – 10:00	**Session 1B: Technology-enhanced Language Learning (TELL)** **Session Chair: Song Yanjie,** **The Education University of Hong Kong** 008 Oral Practice Language Learning by Speech Synthesis and Pronunciation Assessment Hsiang Jen Chung 024 The Analysis of Multimodal Communication in the Metaverse and Its Implications in Language Education Wen-Chu Hu
10:00 – 10:15	**Break**
10:15 – 11:15	**Session 2A: Artificial Intelligence (AI)** **Session Chair: Jeff Chak Fu Wong,** **The Chinese University of Hong Kong** 014 Building Up an Online Training Platform for Enhancing Communication and Presentation Skills of Undergraduate Students by Using AI: Design, Challenges, And Solutions Eric King-Man Chong and Roland Leung 020 Development and Preliminary Research of Artificial Intelligence Learning System Using Quadcopter as Learning Scaffold Li Pin-Yen and Chu Chih-Ming 025 Visualized Environment to Build Chatbot for Learning and Training Maiga Chang and Scott McQuoid

	037 New ways in information retrieval for Children: voice and image recognition with human-computer interaction Yanyan Pan and Yingyi Zheng
10:15 – 11:15	**Session 2B: Language Analytics and Knowledge (LAK)** **Session Chair: Jeremy Tzi-Dong Ng** **The University of Hong Kong** **029** An Analysis of Learner Traversals and Observation Behaviors in Minecraft Jonathan Dl. Casano and Maria Mercedes T. Rodrigo **034** An Exploratory Analysis of Learner Traversals in Minecraft Worlds Maricel A. Esclamado, Maria Mercedes T. Rodrigo and Jenilyn A. Casano **047** Analytics in Sports Using Social Network Analysis Tools and Linear Discriminant Analysis Jeff Chak Fu Wong and Tony Chun Yin Yip
11:15 – 11:30	**Break**
11:30 – 12:30	**Opening Ceremony** **and** **Keynote** **Education Today and Tomorrow: Exploring the Metaverse with AWS** **Chair: Siu-Cheung Kong, The Education University of Hong Kong** **Speaker: Chris Wang, AWS**
12:30 – 14:00	**Lunch Break**
14:00 – 15:00	**Session 3A: Metaverse** **Session Chair: Wen-Chu Hu,** **Ming Chuan University** **010** Math Teachers' Digital Instructional Resources Using Metaverse Technology: A New Trend Guoqiang Dang and Hongke Feng **017** What is Metaverse? A Scoping Review Davy Tsz Kit Ng **041** Learning and Teaching in Higher Education in the Era of Metaverse for Future-Readiness of Learners: Research Issues and Policy Implications Siu-Cheung Kong

	044 The Metaverse in Education – A Proposed Case Study in Primary Schools on Sustainable Development Ecology Kam Yuen Law and Sha Li Shirley Duthie Chuang
14:00 – 15:00	**Session 3B: Augmented Reality/ Virtual Reality (AR/VR)** **Session Chair: Ka-Shing Chui,** **Fukien Secondary School Affiliated School, Hong Kong** **003** Using Virtual Reality in teaching Crisis Management Course Tai Ming Wut and Mei-Lan Peggy Ng **023** Pedagogical Conversion of Tangible Augmented Reality Sandbox into mobile Augmented Reality Sandbox App for Learning Geography Aaron Liu and Percy Kwok **031** Exploring the Outcomes of Learning Analytic Supported VR Content Creation in Cultural Heritage Education Jeremy Tzi-Dong Ng, Zuo Wang, Ruilun Liu and Xiao Hu **038** Augmented Reality Books and Smart Glasses: A Case Study on In-Service Teachers' Views Georgia Kazakou and George Koutromanos
15:00 – 15:15	**Break**
15:15 – 16:30	**Session 4A: Companion / Agent** **Session Chair: George Koutromanos,** **National and Kapodistrian University of** **Athens, Greece** **035** Virtual and Robotic Learning Companions: Some Research Issues Chih-Yueh Chou, Zhi-Hong Chen, Chang-Yen Liao and Tak-Wai Chan **036** Virtual Mentor Agents as Companions in Higher Education Ralf Klamma, Benedikt Hensen, Alexander Tobias Neumann and Anika Rieth **042** Metaverse Learning Agents for Early Childhood e-Learning Chun-Hung Li **048** Developing an avatar generation system for the metaverse in education Yanjie Song, Philip Leung Ho Yu, John Chi Kin Lee, Kaiyi Wu and Jiaxin Galaxy Cao

15:15 – 16:30	**Session 4B: Platform** **Session Chair: Percy Kwok,** **The Education University of Hong Kong** 033 Impact of immersive virtual environments on primary mathematics learning Chui Ka Shing 039 Teaching the creation and distribution of digital artworks within the Metaverse during the pandemic Dimitrios Charitos, Penny Papageorgopoulou and Caterina Antonopoulou 040 Design and Implementation of a Location-based and Collaborative Real-time Multiplayer Application Framework for Virtual Teaching and Learning Tyrone Tai-On Kwok, Yip-Chun Au Yeung, Ziv Ko Hong Tai, Edward Tak Shing Chow, Ka-Shun Hung, Wincy S. C. Chan and Maggie Mee Kie Chan 043 Helping freshmen students understand mathematical inequalities using an online-based learning platform Jeff Chak-Fu Wong and Po-Chai Wong 049 Research on Classroom Playful Learning from the Perspective of Students Xiaoyan Li and Kangas Marjaana
16:30 – 16:45	**Closing Ceremony** **and** **2nd MetaACES Announcement**

PRESENTATION GUIDELINES

- All presentations will be conducted live via Gather Town.
- All presentation date/time is in Hong Kong time (GMT+8). Please refer to https://time.is/Hong_Kong or click here for finding the time difference that your local time may have.
- Presentation time will be 10 minutes plus 5 minutes for questions,15 minutes in total.