

ICCE Panel Proposal

Section A

Panel Title:

Building a Large-Scale Digital Learning Ecosystem: Human-Centered AI and Educational Big Data Analytics in Action

Proposer(s) / Name(s), Affiliation(s) & Country(ies):

Chair: Hiroaki Ogata, Kyoto University, Japan

Panelists:

Thepchai Supnithi: NECTEC, Thailand

Ting-Chia Hsu: Taiwan Normal University, Taiwan

Wenli Chen: NTU/NIE, Singapore

Young Hoan Cho, Seoul National University, South Korea

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Abstract (maximum 200 words):

The rapid digitization of education has unlocked unprecedented opportunities to collect and analyze large-scale educational big data. However, translating vast learning logs into meaningful pedagogical support requires an intentional focus on human agency, ethics, and usability. This panel explores the design, deployment, and impact of nation-wide digital learning platforms that integrate Educational Big Data Analytics with Human-Centered AI (HCAI).

Panelists will discuss how HCAI principles—such as human augmentation, personalized and adaptive support, transparency, and teacher-in-the-loop control—can transform raw educational data into actionable insights for students, educators, and policy makers. Key topics include cross-institutional data infrastructure, scalable personalized feedback systems, ethical data governance, and methods to balance automated AI features with human decision-making.

By examining real-world implementations and visionary frameworks, this session highlights how combining nation-wide infrastructure with human-centered AI can foster equitable, trustworthy, and evidence-informed education at a scale. Attendees will gain valuable perspectives on aligning cutting-edge AI techniques with the authentic needs of learners and teachers.

Panel Members' Particulars:

Role	Name & Affiliation	Email Address	Short Biography (max. 80 words per member)
Chair	<i>Hiroaki Ogata, Kyoto University, Japan</i>	Hiroaki.ogata@gmail.com	Hiroaki Ogata is a Professor and the Director of the Academic Center for Computing and Media Studies at Kyoto University, Japan. He serves as the President of APSCE. He develops

			a data- and evidence-driven platform (LEAF: BookRoll and LogPallette), integrating Human-Centered AI and educational big data analytics to create personalized, trustworthy, and scalable learning environments for students and educators globally.
Panel ist(s)	<i>Thepchai Supnithi: NECTEC, Thailand</i>	<i>thepchai@gmail.com</i>	Thepchai Supnithi is a Principal Researcher at NECTEC, Thailand. He serves as the Chair of SATELUC. He is working in a Thailand National Project, called LEAD: Learning Analytics of Adaptive Education) for K-12 focussing on AI literacy and fundamental concept for AI engineer.
	<i>Ting-Chia Hsu: Taiwan Normal University, Taiwan</i>	<i>chingkun.hsu@gmail.com</i>	Ting-Chia Hsu is a Distinguished Professor at National Taiwan Normal University, specializing in computational thinking and AI literacy. She has received major awards, including the APSCE Early Career (2018) and Distinguished Researcher (2025) Awards, the MOST Wu-Da-Yu Memorial Award (2018), and the Future-Tech Award (2020). With about 60 SSCI publications, she has strong international impact and has held visiting positions at NIE (2011), MIT (2019), and Vilnius University (2024). She is a textbook editor, conference leader, PI of the MOE Big Data Microprogram (2023–2025), and Editor of the Taipei AI Education White Paper (2026).
	<i>Wenli Chen: National Institute of Education, Nanyang Technological University, Singapore</i>	<i>wenli.chen@nie.edu.sg</i>	Professor CHEN Wenli is the Associate Dean (Research Support) of Office for Research at the National Institute of Education (NIE), Nanyang Technological University (NTU) Singapore. She is the co-chair of NIE's Emerging Technologies Strategic Growth Area, and co-chair of AI@NIE. Professor Chen has published more than 100 journal papers. Her research excellence has been consistently recognized through prestigious awards and honours, including 10 Best Paper Awards from reputable international conferences. In 2022, She was honored with the Distinguished Researcher Award from the

			Asia-Pacific Society for Computers in Education in 2020. She serves as the founding co-editor-in-chief of the Journal of Computers in Education (SJR Tier 1A) and the co-editor-in-chief of Learning: Research and Practice (SJR Tier 1). She serves on the Board of Directors of International Society of the Learning Sciences (ISLS), and is an executive committee member of the Asia Pacific Society of Computers in Education (APSCE) and the Global Chinese Society of Computers in Education (GCSCE).
	<i>Young Hoan Cho, Seoul National University, South Korea</i>	<i>yhcho95@snu.ac.kr</i>	Young Hoan Cho is a Professor at the Department of Education and the Director of the Learning Sciences Research Institute, Seoul National University, South Korea. He serves as the Chair of the APSCE SIG 2 (CSCL and Learning Sciences). He has conducted research on building a learning data ecosystem for public education and investigating interactions between learners and AI.
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Specific Requirements for the Panel (e.g., A/V equipment):

Projector and Microphones

Session format:

Introduction of the panel by Hiroaki Ogata 3 minutes

Presentation from 5 panelists (each panelist has 6 minutes) 30 minutes

Discussion 25 minutes

Remarks 2 minutes