

Conference Schedule (Online)

Wednesday, March 25, 2020

	Time							Parallel Tracks	
	US Pacific	US Eastern	London	Frankfurt	Singapore & Beijing	Tokyo	Sydney	Track A	Track B
Conference opening	01:00	04:00	08:00	09:00	16:00	17:00	19:00	Welcome and Opening Keynote (90 min) Keynote: Professor Shane Dawson, University of South Australia, Australia (60 min): Learning Analytics – A Field on the Verge of Relevance? <i>Abstract</i> Keynote QA	
	<i>30 Min Break</i>								
Morning sessions	03:00	06:00	10:00	11:00	18:00	19:00	21:00	Session A1 <i>Session Chair: Vitomir Kovanovic</i> Short research paper A1-P1 (#215): “Evaluating Teachers’ Perceptions of Students’ Questions Organization” <i>by Fatima Harrak, François Bouchet , Vanda Luengo and Pierre Gillois</i> <i>Keywords:</i> teacher’s perception, question organization, student’s need, student’s question, student’s profile, pedagogical interest <i>Abstract</i>	Session B1 <i>Session Chair: Maren Scheffel</i> Full research paper B1-P1 (#44): “Comparing Teachers’ Use of Mirroring and Advising Dashboards” <i>by Anouschka van Leeuwen and Nikol Rummel</i> <i>Keywords:</i> cooperative/collaborative learning, elementary education, human-computer interface, improving classroom teaching, teaching/learning strategies <i>Abstract</i>
	03:30	06:30	10:30	11:30	18:30	19:30	21:30	Full research paper A1-P2 (#133): “Predicting Student Success in a Blended Learning Environment” <i>by Steven Van Goidsenhoven, Daria Bogdanova, Galina Deeva, Seppe Vanden Broucke, Jochen De Weerd and Monique Snoeck</i> <i>Keywords:</i> blended learning, grade	Short research paper B1-P2 (#183): “Learning analytics dashboards: the past, the present and the future” <i>by Katrien Verbert, Xavier Ochoa , Robin De Croon , Raphael Dourado and Tinne De Laet</i> <i>Keywords:</i> learning analytics dashboards, visualisation, interaction, evaluation

04:00	07:00	11:00	12:00	19:00	20:00	22:00
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prediction, e-learning, machine learning, logistic regression, random forest classification, learning analytics

Abstract

Abstract

Invited paper A1-P3 (#-1): "DAS3H: Modeling Student Learning and Forgetting for Optimally Scheduling Distributed Practice of Skills" *by Benoît Choffin, Fabrice Popineau, Yolaine Bourda, Jill-Jënn Vie*

EDM'19 best paper

Abstract

Full research paper B1-P3 (#78): "How working memory capacity limits success in self-directed learning: a cognitive model of search and concept formation" *by Paul Seitlinger, Abida Bibi, Örne Uus and Tobias Ley*

Keywords: Self-directed learning, Concept formation, Working memory capacity, Cognitive-computational modeling

Abstract

30 Min Break

Early Afternoon sessions

05:00	08:00	12:00	13:00	20:00	21:00	23:00
05:30	08:30	12:30	13:30	20:30	21:30	23:30
06:00	09:00	13:00	14:00	21:00	22:00	00:00 (+1)

Session A2
Session Chair: Vitomir Kovanovic

Full research paper A2-P1 (#308): "Inspiration Cards Workshops with Teachers in Early Co-Design Stages of Learning Analytics" *by Yvonne Vezzoli, Manolis Mavrikis and Asimina Vasalou*

Keywords: Learning Analytics, co-design methods, inspiration cards, emerging technology

Abstract

Practitioner report A2-P2 (#181): "Why clicks are not enough: designing a Learning Analytics service for the Estonian Open Educational Resources ecosystem" *by Kairit Tammets, Tobias Ley, Mart Laanpere and Manisha Khulbe*

Keywords: Open Educational Resources, National-level implementation, Learning Analytics, Learning Record Store, Learning Design.

Abstract

Short research paper A2-P3 (#320): "Decoding the Performance in an Out-of-Context Problem during Blocked

Session B2
Session Chair: Maren Scheffel

Practitioner report B2-P1 (#309): "Building a data warehouse for multimodal learning analytics research projects" *by Vlatko Lukarov, Matthias Ehlenz and Ulrik Schroeder*

Keywords: LRS, Multimodal learning events, data warehouse

Abstract

Short research paper B2-P2 (#162): "Slow is Good: The Effect of Diligence on Student Performance in the Case of an Adaptive Learning System for Health Literacy" *by Leon Fadljević, Katharina Maitz, Dominik Kowald, Viktoria Pammer-Schindler and Barbara Gasteiger-Klicpera*

Keywords: reading competence, health literacy, differentiation, diversity, adaptive e-learning system, clustering, learning analytics

Abstract

Full research paper B2-P3 (#291): "Analytics of Learning Strategies: the Association with the Personality

Practice” by *Sweetly Agrawal and Amar Lalwani*

Keywords: Interleaving, Blocking, Massed Practice, ITS, K-12 Education, Mathematics

Abstract

Traits” by *Wannisa Matcha, Dragan Gasevic, Jelena Jovanovic, Nora Ayu Ahmad Uzir, Chris W Oliver, Andrew Murray and Danijela Gasevic*

Best full research paper nominee

Keywords: learning strategies, approaches to learning, personality traits, learning analytics

Abstract

30 Min Break

Mid-afternoon sessions

07:00

10:00

14:00

15:00

22:00

23:00

01:00 (+1)

Session A3

Session Chair: Inge Molenaar

Short research paper A3-P1

(#205):“Involving teachers in learning analytics design: Lessons learned from two case studies” by *Konstantinos Michos, Charles Lang, Davinia Hernández-Leo and Detra Price-Dennis*

Keywords: Learning Analytics, Teachers, Co-design, Case Studies, Teacher Professional Development

Abstract

Session B3

Session Chair: Rebecca Ferguson

Full research paper B3-P1

(#65):“Supporting actionable intelligence: Reframing the analysis of observed study strategies” by *Jelena Jovanovic, Shane Dawson, Srecko Joksimovic and George Siemens*

Keywords: trace data, learner behaviour, learning tactics and strategies, explanatory models

Abstract

07:30

10:30

14:30

15:30

22:30

23:30

01:30 (+1)

Short research paper A3-P2

(#33):“Exploring exam strategies of successful first year engineering students” by *Jakub Kužilek, Zdenek Zdrahal, Jonas Vaclavek, Viktor Fuglik and Jan Skočilas*

Keywords: Exam strategies, Modelling, Markov Chains

Abstract

Full research paper B3-P2 (#305): “The privacy paradox and its implications for learning analytics” by *Yi-Shan Tsai, Alexander Whitelock-Wainwright and Dragan Gašević*

Keywords: Learning analytics, privacy, expectations, privacy paradox, higher education

Abstract

08:00

11:00

15:00

16:00

23:00

00:00 (+1)

02:00 (+1)

Short research paper A3-P3

(#80):“Dialogue attributes that inform depth and quality of participation in student discussion forums” by *Elaine Farrow, Johanna Moore and Dragan Gasevic*

Best short research paper nominee

Keywords: text analysis, engagement, participation, Community of Inquiry, ICAP

Abstract

Full research paper B3-P3 (#16): “Is Faster Better? A Study of Video Playback Speed” by *David Lang, Guanliang Chen, Kathy Mirzaei and Andreas Paepcke*

Keywords: moocs, randomized controlled trials, RCTs, playback speed, video interactions, clickstreams, video analytics, grades

Abstract

30 Min Break

Late afternoon sessions	09:00	12:00	16:00	17:00	00:00 (+1)	01:00 (+1)	03:00 (+1)	Session A4 <i>Session Chair: Craig Thompson</i> Full research paper A4-P1 (#42): “Analyzing the consistency in within-activity learning patterns in blended learning” <i>by Varshita Sher, Marek Hatala and Dragan Gasevic</i> <i>Keywords:</i> Work Habits, Time Management, Time-series Analysis, Learner performance and Consistency, Regularity, Student Persistence <i>Abstract</i>	Session B4 <i>Session Chair: Rebecca Ferguson</i> Short research paper B4-P1 (#176): “Trace Data from Student Solutions to Genetics Problems Reveals Variance in the Processes Related to Different Course Outcomes” <i>by Melanie Pepper , David Quigley, Liza Brusman, Jennifer Avena and Jennifer Knight</i> <i>Keywords:</i> Clustering, Problem solving, Genetics, Metacognition <i>Abstract</i>
	09:30	12:30	16:30	17:30	00:30 (+1)	01:30 (+1)	03:30 (+1)	Practitioner report A4-P2 (#187): “Engaging Students as Co-Designers of Learning Analytics” <i>by Juan Pablo Sarmiento, Fabio Campos and Alyssa Wise</i> Best practitioner report nominee <i>Keywords:</i> participatory design, student-facing dashboards, higher education <i>Abstract</i>	Full research paper B4-P2 (#135): “Towards Automatic Content Analysis of Social Presence in Transcripts of Online Discussions” <i>by Máverick Ferreira, Vitor Rolim, Rafael Ferreira Mello , Rafael Lins , Guanliang Chen and Dragan Gasevic</i> <i>Keywords:</i> Community of Inquiry Model, Content Analytics, Online Discussion, Text Classification, Epistemic Network Analysis <i>Abstract</i>
	10:00	13:00	17:00	18:00	01:00 (+1)	02:00 (+1)	04:00 (+1)	Full research paper A4-P3 (#245): “An Exploratory Approach to Measuring Collaborative Engagement in Child Robot Interaction” <i>by Yanghee Kim , Sachit Butail, Michael Tscholl , Lichuan Liu and Yunlong Wang</i> <i>Keywords:</i> Human-robot interaction, engagement, automatic speech recognition, short-time signal processing, social robotics, human computer interaction, child robot interaction <i>Abstract</i>	Short research paper B4-P3 (#107): “Design of a Curriculum Analytics Tool to Support Continuous Improvement Processes in Higher Education” <i>by Isabel Hilliger, Camila Aguirre, Constanza Miranda, Sergio Celis and Mar Pérez-Sanagustín</i> Best short research paper nominee <i>Keywords:</i> Learning Analytics, Curriculum Analytics, Higher Education <i>Abstract</i>

30 Min Break

Evening sessions	11:00	14:00	18:00	19:00	02:00 (+1)	03:00 (+1)	05:00 (+1)	Session A5 <i>Session Chair: Xavier Ochoa</i> Short research paper A5-P1 (#227): “Towards Understanding the Lifespan and Spread of Ideas”	Session B5 <i>Session Chair: Nia Dowell</i> Full research paper B5-P1 (#72): “Perceptions and expectations about Learning Analytics from a Brazilian Higher
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					<p>Emergence and Spread of Ideas: Epidemiological Modeling of Participation on Twitter” by <i>Sai Santosh Sasank Peri, Bodong Chen, Angela Liegey Dougall and George Siemens</i></p> <p><i>Keywords:</i> Ideas, Epidemiology, Engagement Patterns, Networked Learning, Knowledge Creation, Connectivism</p> <p>Abstract</p>	<p>Learning Analytics from a Brazilian Higher Education Institution” by <i>Taciana Pontual, Rafael Ferreira Mello, Rodrigo Lins, Juliana Diniz, Yi-Shan Tsai and Dragan Gasevic</i></p> <p><i>Keywords:</i> Learning analytics, Higher education institutions, Human factors, Qualitative research</p> <p>Abstract</p>		
11:30	14:30	18:30	19:30	02:30 (+1)	03:30 (+1)	05:30 (+1)	<p>Short research paper A5-P2 (#294):“Socio-Temporal Dynamics in Peer Interaction Events” by <i>Bodong Chen and Oleksandra Poquet</i></p> <p><i>Keywords:</i> Relational event modelling, temporality, digital peer networks</p> <p>Abstract</p>	<p>Full research paper B5-P2 (#236): “The relationship between confusion and metacognitive strategies in Betty’s Brain” by <i>Yingbin Zhang, Luc Paquette, Ryan Baker, Jaclyn Ocumpaugh, Nigel Bosch, Anabil Munshi and Gautam Biswas</i></p> <p><i>Keywords:</i> confusion, confusion resolution, metacognitive strategy, learning analytics</p> <p>Abstract</p>
12:00	15:00	19:00	20:00	03:00 (+1)	04:00 (+1)	06:00 (+1)	<p>Full research paper A5-P3 (#17):“Focused or Stuck Together: Multimodal Patterns Reveal Triads’ Performance in Collaborative Problem Solving” by <i>Hana Vrzakova, Angela Stewart, Mary Jean Amon, Nicholas Duran and Sidney K. D’Mello</i></p> <p>Best full research paper nominee</p> <p><i>Keywords:</i> Multimodal Learning Analytics, Interpretability, CSCL, CSCW</p> <p>Abstract</p>	<p>Practitioner report B5-P3 (#23): “Learning Analytics Applied in Commercial Aviation: Our Use Cases, Obstacles, and Help Needed From Academia” by <i>Liz Gehr and Laurie Dunagan</i></p> <p><i>Keywords:</i> Aviation, Competency Based Training, Obstacles to Learning Analytics Implementation</p> <p>Abstract</p>
12:30	15:30	19:30	20:30	03:30 (+1)	04:30 (+1)	06:30 (+1)	<p>Full research paper A5-P4 (#186):“iSENS: An Integrated Approach to Combining Epistemic and Social Network Analyses” by <i>Zachari Swiecki and David Williamson Shaffer</i></p> <p><i>Keywords:</i> Collaborative problem solving, Epistemic network analysis, Social network analysis</p> <p>Abstract</p>	<p>Full research paper B5-P4 (#50): “How Patterns of Students Dashboard Use Are Related to Their Achievement and Self-Regulatory Engagement” by <i>Fatemeh Salehian Kia, Stephanie Teasley, Marek Hatala, Stuart Karabenick and Matthew Kay</i></p> <p><i>Keywords:</i> Student-facing dashboard, self-regulated learning, sequence analytics, academic achievement</p> <p>Abstract</p>

Thursday, March 26, 2020

	Time							Parallel Tracks	
	US Pacific	US Eastern	London	Frankfurt	Singapore & Beijing	Tokyo	Sydney	Track A	Track B
Early morning sessions	01:00	04:00	08:00	09:00	16:00	17:00	19:00	Session A6 <i>Session Chair: Sasha Poquet</i> Short research paper A6-P1 (#312): “Automated Insightful Drill-Down Recommendations for Learning Analytics Dashboards” <i>by Shiva Shabaninejad, Hassan Khosravi , Marta Indulska , Aneesha Bakharia and Pedro Isaias</i> Best short research paper nominee <i>Keywords:</i> Learning Analytics Dashboards, Visualization Recommendation, Drill-down Data Analysis <i>Abstract</i>	Session B6 <i>Session Chair: Shibani Antonette</i> Short research paper B6-P1 (#62): “Towards automated analysis of cognitive presence in MOOC discussions: a manual classification study” <i>by Yuanyuan Hu , Claire Donald , Nasser Giacaman and Zexuan Zhu</i> <i>Keywords:</i> cognitive presence, MOOC, text classification, online classification <i>Abstract</i>
	01:30	04:30	08:30	09:30	16:30	17:30	19:30	Short research paper A6-P2 (#278): “Fostering and Supporting Empirical Research on Evaluative Judgement via a Crowdsourced Adaptive Learning System” <i>by Hassan Khosravi , George Gyamfi, Barbara Hanna and Jason Lodge</i> Best short research paper nominee <i>Keywords:</i> evaluative judgement, crowdsourcing, student-authored materials, educational technologies <i>Abstract</i>	Full research paper B6-P2 (#69): “LA-DECK: A card-based learning analytics co-design tool” <i>by Carlos Gerardo Prieto Alvarez , Simon Buckingham Shum and Roberto Martinez-Maldonado</i> <i>Keywords:</i> Co-design, Learning analytics, Participatory design <i>Abstract</i>
	02:00	05:00	09:00	10:00	17:00	18:00	20:00	Practitioner report A6-P3 (#130): “Implementing an attrition model at scale” <i>by Amelia Brennan, Andras Nemes, Jeevan Pokhrel, Cameron Doyle, Vishesh Jain and David McLay</i> Best practitioner report nominee <i>Keywords:</i> Students at risk, Predictive modelling, Attrition	Short research paper B6-P3 (#66): “Learning-centred Translucence: an Approach to Understand How Teachers’ Talk About Classroom Data” <i>by Rita Prestigiaco, Roger Hadgraft, Jane Hunter, Lori Lockyer, Simon Knight, Elise van den Hoven and Roberto Martinez Maldonado</i>

Abstract

Keywords: Classroom evidence, human-centred design, participatory design, evidence-based decision-making

Abstract

30 Min Break

Morning sessions

03:00 06:00

10:00 11:00

18:00 19:00 21:00

Session A7

Session Chair: Sasha Poquet

Short research paper A7-P1

(#147): "Smart Dictionary for E-book Reading Analytics" by Louis Lecailliez, Brendan Flanagan, Mei-Rong Alice Chen and Hiroaki Ogata

Keywords: English education, smart dictionary, e-book, learning analytics

Abstract

Session B7

Session Chair: Yi-Shan Tsai

Practitioner report B7-P1

(#142): "Effects of In-class and Out-of-class Learning Behaviors on Learning Performance and Self-regulated Learning Awareness" by Li Chen, Yoshiko Goda, Atsushi Shimada and Masanori Yamada

Keywords: Learning analytics, Self-regulated learning, In-class behavior, Out-of-class behavior

Abstract

03:30 06:30

10:30 11:30

18:30 19:30 21:30

Practitioner report A7-P2 (#38): "For Evidence-Based Class Design with Learning Analytics: A Proposal of Preliminary Practice Flow Model in High School" by Satomi Hamada, Yufan Xu, Xuewang Geng, Li Chen, Hiroaki Ogata, Atsushi Shimada and Masanori Yamada

Keywords: Learning Analytics, Study Logs, Digital Textbooks, Proposal Models, High School

Abstract

Short research paper B7-P2

(#270): "Learning with Background Music: A Field Experiment" by Fanjie Li, Xiao Hu and Ying Que

Keywords: background music, learning engagement, learning performance, naturalistic setting, music information retrieval

Abstract

04:00 07:00

11:00 12:00

19:00 20:00 22:00

Short research paper A7-P3

(#121): "Exploring Student Approaches to Learning through Sequence Analysis of Reading Logs" by Gökhan Akçapınar, Mei-Rong Alice Chen, Rwitajit Majumdar, Brendan Flanagan and Hiroaki Ogata

Keywords: Study approaches, sequence analysis, clustering, association rule mining, learning analytics

Abstract

Full research paper B7-P3

(#244): "Predicting Student Performance in Interactive Online Question Pools Using Mouse Interaction Features" by Huan Wei, Haotian Li, Meng Xia, Yong Wang and Huamin Qu

Keywords: student performance prediction, question pool, mouse movement trajectory, heterogeneous information network

Abstract

30 Min Break

Early afternoon

05:00 08:00

12:00 13:00

20:00 21:00 23:00

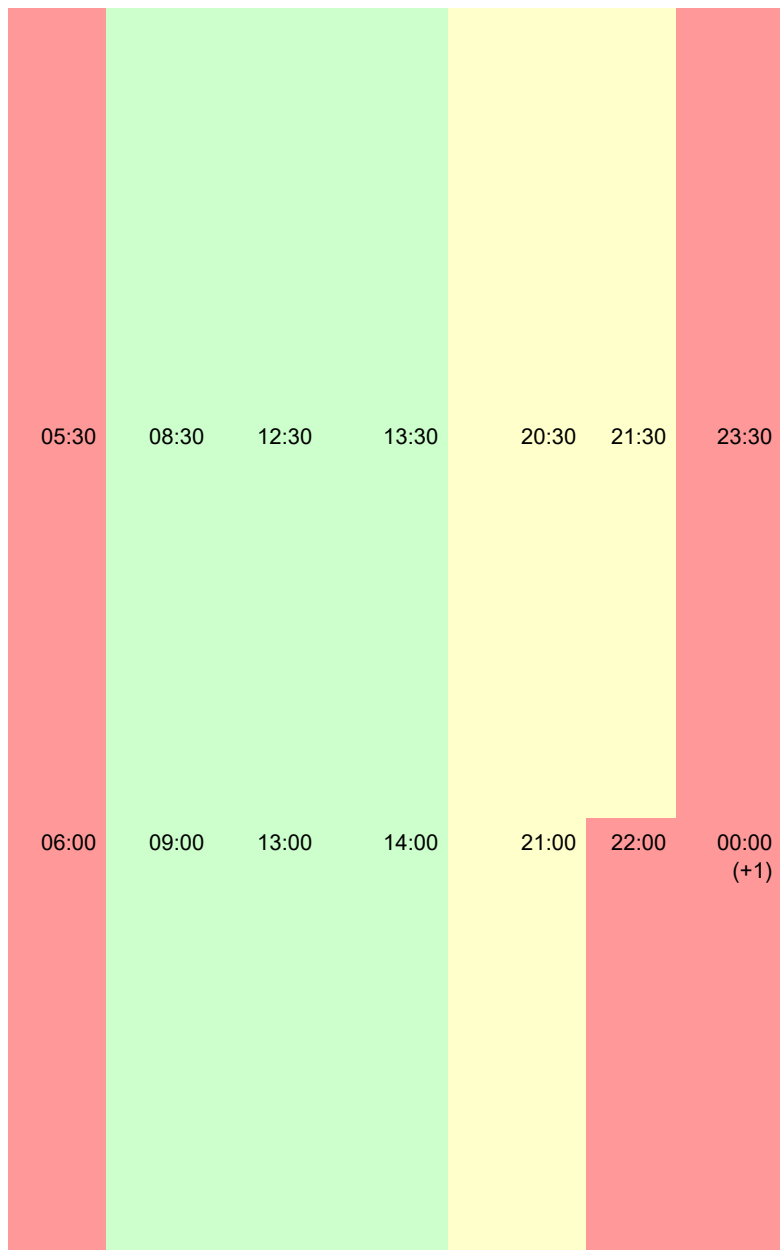
Session A8

Session Chair: Jooon Joo

Session B8

Session Chair: Yi-Shan Tsai

afternoon sessions



Session Chair: Ioana Jiver

Full research paper A8-P1 (#223): "A Bayesian Model of Individual Differences and Flexibility in Inductive Reasoning for Categorization of Examples" by *Louis Faucon, Jennifer K. Olsen and Pierre Dillenbourg*

Keywords: Inductive Reasoning, Student Modeling, Adaptive Learning Environment, Process Mining

Abstract

Full research paper A8-P2 (#75):"Learning to Represent Healthcare Providers Knowledge of Neonatal Emergency Care" by *Timothy Tuti, Chris Paton and Niall Winters*

Best full research paper nominee

Keywords: Global Health, Clinical training, Neonatal care, Emergency care, Smartphones, Deep Knowledge Tracing, Forgetting Curves, Long Short-Term Memory Neural Networks

Abstract

Full research paper A8-P3 (#233):"R2DE: a NLP approach to estimating IRT parameters of newly generated questions" by *Luca Benedetto, Paolo Cremonesi, Andrea Cappelli and Roberto Turrin*

Best full research paper nominee

Keywords: learning analytics, natural language processing, knowledge tracing, item response theory, educational data mining

Abstract

Session Chair: Yi-Shian Tsai

Short research paper B8-P1 (#160):"High resolution temporal network analysis to understand and improve collaborative learning" by *Mohammed Saqr and Jalal Nouri*

Keywords: learning analytics, Social network analysis, Temporal networks, Temporarily, Collaborative learning, Problem-based learning, Medical education

Abstract

Full research paper B8-P2 (#15):"Personalized Visualizations to Promote Young Learners' SRL" by *Inge Molenaar, Anne Horvers, Rick Dijkstra and Ryan Baker*

Keywords: Self-Regulated Learning, Adaptive Learning Technologies, Learner-faced dashboards, Hybrid Human-System Intelligence

Abstract

Full research paper B8-P3 (#94):"Constructing and Predicting School Advice for Academic Achievement: A Comparison of Item Response Theory and Machine Learning Techniques" by *Koen Niemeijer, Remco Feskens, Georg Krempf, Jesse Koops and Matthieu Brinkhuis*

Keywords: E-Learning, Item Response Theory', Machine Learning', Neural Networks, Random Forests, Explainable AI

Abstract

30 Min Break

Mid-afternoon sessions



Session A9
Session Chair: Isabel Hilliger

Full research paper A9-P1 (#126):"Analytics of Time Management and Learning Strategies for Effective Online Learning in Blended

Session B9
Session Chair: Stephanie Teasley

Full research paper B9-P1 (#120):"Exploration of the Robustness and Generalizability of the Additive Factors Model" by *James Effebarger*

								<p>Online Learning in Blended Environments" by Nora'Ayu Ahmad Uzir, Dragan Gašević, Jelena Jovanovic, Wannisa Matcha, Lisa-Angelique Lim and Anthea Fudge</p> <p>Keywords: Blended learning, Learning analytics, Learning strategies, Time management strategies, Self-regulated learning</p> <p><i>Abstract</i></p>	<p>Factors Model by Tomas Ehrenberger, Radek Pelánek and Jaroslav Čechák</p> <p>Keywords: student modeling, Additive Factors Model, learning curves, knowledge components, introductory programming</p> <p><i>Abstract</i></p>
	07:30	10:30	14:30	15:30	22:30	23:30	01:30 (+1)	<p>Full research paper A9-P2 (#97):"Combining Analytic Methods to Unlock Sequential and Temporal Patterns of Self-Regulated Learning" by John Saint , Dragan Gasevic , Abelardo Pardo , Wannisa Matcha and Nora'Ayu Ahmad Uzir</p> <p>Keywords: Applied computing, Education, Learning management systems, Computing methodologies, Machine learning, Learning settings, Active learning settings</p> <p><i>Abstract</i></p>	<p>Full research paper B9-P2 (#141):"Predicting learners' effortful behaviour in adaptive assessment using multimodal data" by Kshitij Sharma, Zacharoula Papamitsiou, Jennifer Olsen and Michail Giannakos</p> <p>Keywords: adaptive assessment, effort prediction, multimodal learning analytics, hidden Markov models</p> <p><i>Abstract</i></p>
	08:00	11:00	15:00	16:00	23:00	00:00 (+1)	02:00 (+1)	<p>Full research paper A9-P3 (#218): "edX Log Data Analysis Made Easy" by Manuel Valle Torre, Esther Tan and Claudia Hauff</p> <p>Keywords: MOOC, edX, learning analytics, visualizations</p> <p><i>Abstract</i></p>	<p>Short research paper B9-P3 (#3):"Assessment that matters: Balancing reliability and learner-centered pedagogy in MOOC assessment" by Giora Alexandron, Mary Ellen Wilttrout, Aviram Berg and Jose A. Ruiperez-Valiente</p> <p>Keywords: MOOCs, Assessment, Learning Analytics</p> <p><i>Abstract</i></p>
30 Min Break									
Late afternoon sessions	09:00	12:00	16:00	17:00	00:00 (+1)	01:00 (+1)	03:00 (+1)	<p>Session A10 Session Chair: Xavier Ochoa</p> <p>Full research paper A10-P1 (#254):"Designing for Serendipity in a Course Recommendation System" by Zach Pardos and Weijie Jiang</p> <p>Keywords: Higher education, course guidance, filter bubble, neural networks</p> <p><i>Abstract</i></p>	<p>Session B10 Session Chair: Melanie Peffer</p> <p>Short research paper B10-P1 (#310):"Rethinking time-on-task estimation with outlier detection accounting for individual, time, and task differences" by Quan Nguyen</p> <p>Keywords: Learning analytics, Temporal analysis, Outlier detection, Time-on-task, Measurement</p>

	09:30	12:30	16:30	17:30	00:30 (+1)	01:30 (+1)	03:30 (+1)	<p>Full research paper A10-P2 (#319):“Applying Prerequisite Structure Inference to Adaptive Testing” by <i>Sam Saarinen , Evan Cater and Michael Littman</i></p> <p><i>Keywords:</i> prerequisite detection, adaptive testing, knowledge models</p> <p><i>Abstract</i></p>	<p>Full research paper B10-P2 (#71): “How good is my feedback? A Content Analysis of Written Feedback” by <i>Anderson Pinheiro Cavalcanti, Arthur Diego, Rafael Ferreira Mello , Katerina Mangaroska, André Nascimento, Fred Freitas and Dragan Gasevic</i></p> <p><i>Keywords:</i> Feedback, Learning Analytics, Content Analysis, Online learning</p> <p><i>Abstract</i></p>
	10:00	13:00	17:00	18:00	01:00 (+1)	02:00 (+1)	04:00 (+1)	<p>Invited paper A10-P3 (#-2): “Predicting the Difficulty of Multiple Choice Questions in a High-stakes Medical Exam” by <i>Le An Ha, Victoria Yaneva, Peter Baldwin, Janet Mee</i></p> <p>ACL SIG-EDU’19 best paper</p> <p><i>Abstract</i></p>	<p>Short research paper B10-P3 (#219):“Characterizing and influencing students’ tendency to write self-explanations in online homework” by <i>Yuya Asano, Jaemarie Solyst and Joseph Williams</i></p> <p><i>Keywords:</i> self-explanation, prompts, engagement, online homework, randomized experiment</p> <p><i>Abstract</i></p>

30 Min Break

Evening sessions	11:00	14:00	18:00	19:00	02:00 (+1)	03:00 (+1)	05:00 (+1)	<p>Session A11 <i>Session Chair: Craig Thompson</i></p> <p>Full research paper A11-P1 (#313):“From Theory to Action: Developing and Evaluating Learning Analytics for Learning Design” by <i>Korah Wiley, Yannis Dimitriadis , Allison Bradford and Marcia Linn</i></p> <p><i>Keywords:</i> learning analytics for learning design, learning design, design-based research, teacher-facing learning analytics, theory of learning</p> <p><i>Abstract</i></p>	<p>Session B11 <i>Session Chair: Nia Dowell</i></p> <p>Short research paper B11-P1 (#115):“Detecting learning in noisy data: The case of oral reading fluency” by <i>Beata Beigman Klebanov, Anastassia Loukina, John Lockwood, Van Liceralde, John Sabatini, Nitin Madhani , Binod Gyawali, Zuowei Wang and Jennifer Lentini</i></p> <p><i>Keywords:</i> children’s reading, reading fluency, oral reading fluency, reading app, book reading, reading analytics</p> <p><i>Abstract</i></p>
	11:30	14:30	18:30	19:30	02:30 (+1)	03:30 (+1)	05:30 (+1)	<p>Short research paper A11-P2 (#224):“Using a Cluster-Based Regime-Switching Dynamic Model to Understand Embodied Mathematical Learning” by <i>Lu Ou, Alejandro Andrade, Rosa Alberto, Gitte van Helden and Arthur Bakker</i></p>	<p>Short research paper B11-P2 (#81):“Macro MOOC Learning Analytics: Exploring Trends Across Global and Regional Providers” by <i>José A. Ruipérez Valiente , Matt Jenner, Thomas Staubitz, Xitong Li, Tobias Rohloff, Sherif Halawa , Carlos Turro, Yuan Cheng, Jiaxin Zhang</i></p>

	12:00	15:00	19:00	20:00	03:00 (+1)	04:00 (+1)	06:00 (+1)	<p>Keywords: Multimodal Learning Analytics, Embodied Cognition, Mathematical Learning, Dynamic Models</p> <p><i>Abstract</i></p> <p>Practitioner report A11-P3 (#238): "Building a Unified Data Platform to Support Metacognition and Self Regulated Learning" by <i>John Johnston and Etienne Pelaprat</i></p> <p>Keywords: Learning Analytics, Metacognition, Self-regulated Learning, Student-Facing Learning Visualizations</p> <p><i>Abstract</i></p>	<p><i>Carlos Tamarit, Tuan Cheng, Jayin Zhang, Ignacio Despujol and Justin Reich</i></p> <p>Keywords: MOOCs, Learning Analytics, Multi-platform Analytics Collaboration, Large-scale Analytics, Cultural Factors</p> <p><i>Abstract</i></p> <p>Full research paper B11-P3 (#231): "What College Students Say, and What They Do: Aligning Self-Regulated Learning Theory with Behavioral Logs" by <i>Joshua Quick, Benjamin Motz, Jamie Israel and Jason Kaetzel</i></p> <p>Keywords: LMS, self-regulated learning, self-reports, trace data</p> <p><i>Abstract</i></p>
30 Min Break									
Conference social session	13:00	16:00	20:00	21:00	04:00 (+1)	05:00 (+1)	07:00 (+1)	<p>Conference Social Night (45 min)</p> <p>Best paper/poster/demo awards <i>Summary</i></p> <p>LAK21 Announcement <i>Summary</i></p> <p>LAK20 Feedback and Group Discussion <i>Summary</i></p>	

Friday, March 27, 2020

	Time							Parallel Tracks	
	US Pacific	US Eastern	London	Frankfurt	Singapore & Beijing	Tokyo	Sydney	Track A	Track B
Early morning sessions	01:00	04:00	08:00	09:00	16:00	17:00	19:00	<p>Session A12 <i>Session Chair: Shibani Antonette</i></p> <p>Full research paper A12-P1</p>	<p>Session B12 <i>Session Chair: Yi-Shan Tsai</i></p> <p>Full research paper B12-P1</p>

								<p>(#263):“Towards Skills-based Curriculum Analytics: Can we automate the recognition of prior learning?” by <i>Kirsty Kitto , Nikhil Sarathy, Aleksandr Gromov, Ming Liu, Katarzyna Musial and Simon Buckingham Shum</i></p> <p><i>Keywords:</i> curriculum analytics, lifelong learning, recognition of prior learning, semantic spaces, skills ontologies</p> <p>Abstract</p>	<p>(#285):“Intergroup and Interpersonal Forum Positioning in Shared-Thread and Post-Reply Networks” by <i>Oleksandra Poquet and Jelena Jovanovic</i></p> <p><i>Keywords:</i> Learner networks, social positioning, collective learning</p> <p>Abstract</p>
	01:30	04:30	08:30	09:30	16:30	17:30	19:30	<p>Short research paper A12-P2 (#140):“The SEIRA approach: course embedded activities to promote academic integrity and literacies in first year Engineering” by <i>Andrea Duff, Andrew Zamecnik, Abelardo Pardo and Elizabeth Smith</i></p> <p><i>Keywords:</i> learning analytics, academic literacy, academic integrity, plagiarism, clustering, engagement</p> <p>Abstract</p>	<p>Practitioner report B12-P2 (#68): “Using the Behaviour Change Wheel for Learning Analytics adoption” by <i>Hazel Jones</i></p> <p><i>Keywords:</i> Behaviour Change Wheel, change management, faculty engagement, learning analytics</p> <p>Abstract</p>
	02:00	05:00	09:00	10:00	17:00	18:00	20:00	<p>Full research paper A12-P3 (#225):“Exploring the Usage of Thermal Imaging for Understanding Video Lecture Designs and Students’ Experiences” by <i>Namrata Srivastava, Sadia Nawaz, Jason Lodge, Eduardo Velloso , Sarah M. Erfani and James Bailey</i></p> <p><i>Keywords:</i> Video lectures, Thermal imaging, Cognitive load, Instructional design</p> <p>Abstract</p>	<p>Short research paper B12-P3 (#83):“Modelling Collaborative Problem-solving Competence with Transparent Learning Analytics: Is Video Data Enough?” by <i>Mutlu Cukurova, Qi Zhou, Daniel Spikol and Lorenzo Landolfi</i></p> <p>Best short research paper nominee</p> <p><i>Keywords:</i> physical learning analytics, collaborative problem-solving, decision trees, video analytics</p> <p>Abstract</p>

30 Min Break

Morning sessions	03:00	06:00	10:00	11:00	18:00	19:00	21:00	<p>Session A13 <i>Session Chair: Vitomir Kovanovic</i></p> <p>Short research paper A13-P1 (#240):“Complementing Educational Recommender Systems with Open Learner Models” by <i>Solmaz Abdi, Hassan Khosravi, Shazia Sadiq and Dragan Gasevic</i></p> <p><i>Keywords:</i> Educational Recommender Systems, Open Learner Models,</p>	<p>Session B13 <i>Session Chair: Simon Buckingham Shum</i></p> <p>Full research paper B13-P1 (#274): “Are Forum Networks Social Networks? A Methodological Perspective” by <i>Oleksandra Poquet, Liubov Tupikina and Marc Santolini</i></p> <p><i>Keywords:</i> null models, online posts, learner networks, online forums, collective learning</p>
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	03:30	06:30	10:30	11:30	18:30	19:30	21:30	<p>Educational Data Mining</p> <p><i>Abstract</i></p> <p>Full research paper A13-P2 (#20):“Prediction of Students’ Assessment Readiness in Online Learning Environments: The Sequence Matters” by <i>Donia Malekian, James Bailey and Gregor Kennedy</i></p> <p><i>Keywords:</i> Learning Analytics, LSTM, Assessment Readiness Prediction, Sequential Pattern Mining, MOOCs</p> <p><i>Abstract</i></p>	<p><i>Abstract</i></p> <p>Full research paper B13-P2 (#264):“Understanding Students’ Engagement with Personalised Feedback Messages”by <i>Hamideh Iraj, Anthea Fudge, Margaret Faulkner, Abelardo Pardo and Vitomir Kovanović</i></p> <p>Best full research paper nominee</p> <p><i>Keywords:</i> Feedback, Learning Analytics, Higher Education, Feedback Gap, Data-Driven Approaches</p> <p><i>Abstract</i></p>
	04:00	07:00	11:00	12:00	19:00	20:00	22:00	<p>Full research paper A13-P3 (#153):“Let’s Shine Together! A Comparative Study between Learning Analytics and Educational Data Mining” by <i>Guanliang Chen , Vitor Rolim, Rafael Ferreira Mello and Dragan Gasevic</i></p> <p><i>Keywords:</i> Learning Analytics, Educational Data Mining, Hierarchical Topic Detection, Language Modeling</p> <p><i>Abstract</i></p>	<p>Full research paper B13-P3 (#99):“Disciplinary Differences in Blended Learning Design: A Network Analytic Study” by <i>Alexander Whitelock-Wainwright, Yi-Shan Tsai, Kayley Lyons, Svetlana Khalif, Mike Bryant, Kris Ryan and Dragan Gasevic</i></p> <p><i>Keywords:</i> faculty, learning activity types, epistemic network analysis</p> <p><i>Abstract</i></p>
<i>30 Min Break</i>									
Early afternoon sessions	05:00	08:00	12:00	13:00	20:00	21:00	23:00	<p>Session A14 <i>Session Chair: Ioana Jivet</i></p> <p>Full research paper A14-P1 (#82): “Self-Regulated Learning and Learning Analytics in Online Learning Environments: A Review of Empirical Research” by <i>Olga Viberg, Mohammad Khalil and Martine Baars</i></p> <p><i>Keywords:</i> self-regulated learning, learning analytics, literature review</p> <p><i>Abstract</i></p>	<p>Session B14 <i>Session Chair: Rafael Ferreira Mello</i></p> <p>Short research paper B14-P1 (#1):“Learning Analytics Challenges: Trade-offs, Methodology, Scalability” by <i>Radek Pelánek</i></p> <p><i>Keywords:</i> trade-offs, scalability, methodology, challenge</p> <p><i>Abstract</i></p>
	05:30	08:30	12:30	13:30	20:30	21:30	23:30	<p>Practitioner report A14-P2 (#124):“Considerations for amending a whole-institution early-alert system” by <i>Rebecca Siddle and Ed Foster</i></p> <p><i>Keywords:</i> Learning analytics, Early warning, Student success</p>	<p>Full research paper B14-P2 (#237):“From childhood to maturity: Are we there yet?: Mapping the intellectual progress in learning analytics during the past decade”by <i>Zacharoula Papamitsiou, Michail Giannakos and Xavier Ochoa</i></p> <p><i>Keywords:</i> Co-word analysis</p>

	06:00	09:00	13:00	14:00	21:00	22:00	00:00 (+1)	<p><i>Abstract</i></p> <p>Full research paper A14-P3 (#248): "The Automated Grading of Student Open Responses in Mathematics" by <i>John Erickson, Anthony F. Botelho, Steven McAteer, Ashvini Varatharaj and Neil Heffernan</i></p> <p><i>Keywords:</i> open responses, automatic grading, natural language processing</p> <p><i>Abstract</i></p>	<p><i>Keywords:</i> Co-word analysis, bibliometrics, conceptual evolution, learning analytics</p> <p><i>Abstract</i></p> <p>Short research paper B14-P3 (#86):"#Confused and Beyond: Detecting Confusion in Course Forums using Student Annotated Hashtags" by <i>Shay Geller, Nicholas Hoernle, Kobi Gal, Marc Facciotti, Avi Segal, Michele Igo, David Karger and Amy Zhang</i></p> <p><i>Keywords:</i> confusion detection, affective learning, student forums</p> <p><i>Abstract</i></p>
30 Min Break									
Mid-afternoon sessions	07:00	10:00	14:00	15:00	22:00	23:00	01:00 (+1)	<p>Session A15 <i>Session Chair: Isabel Hilliger</i></p> <p>Full research paper A15-P1 (#259):"Peeking through the Classroom Window : A Detailed Data-Driven Analysis on the Usage of a Curriculum Integrated Math Game in Authentic Classrooms" by <i>Preya Shabrina, Ruth Akintunde, Mehak Maniktala, Tiffany Barnes, Collin Lynch and Teomara Rutherford</i></p> <p><i>Keywords:</i> Curriculum Integrated Games, Educational Games, Classroom Integration, Game Play Session, Teaching Practices</p> <p><i>Abstract</i></p>	<p>Session B15 <i>Session Chair: Bodong Chen</i></p> <p>Full research paper B15-P1 (#190):"Quantifying Data Sensitivity: Precise Demonstration of Care when Building Student Prediction Models" by <i>Charles Lang, Charlotte Woo and Jeanne Sinclair</i></p> <p><i>Keywords:</i> Prediction models, data sensitivity, data privacy, student models, data collection parsimony, ethics, empirical Bayes</p> <p><i>Abstract</i></p>
	07:30	10:30	14:30	15:30	22:30	23:30	01:30 (+1)	<p>Full research paper A15-P2 (#272):"Data-informed Curriculum Sequences for a Curriculum-Integrated Game" by <i>Ruth Akintunde, Preya Shabrina, Veronica Catete, Tiffany Barnes, Collin Lynch and Teomara Rutherford</i></p> <p><i>Keywords:</i> Serious Game Analytics, Educational Games, Curricular Sequencing, Retries, Predictive Analysis</p> <p><i>Abstract</i></p>	<p>Full research paper B15-P2 (#268):"How and How Well Do Students Reflect?: Multi-Dimensional Automated Reflection Assessment in Health Professions Education" by <i>Yeonji Jung and Alyssa Wise</i></p> <p><i>Keywords:</i> Reflection, Reflection Assessment, Health Professions Education, Classification, Natural Language Processing, Content Analysis</p> <p><i>Abstract</i></p>
	08:00	11:00	15:00	16:00	23:00	00:00 (+1)	02:00 (+1)	<p>Full research paper A15-P3 (#207):"Testing the reliability of inter-rater</p>	<p>Full research paper B15-P3 (#130):"Towards Automatic Cross-</p>

						(+1)	(+1)	(+1)	(+1)	<p>(7207). Testing the Reliability of Inter-Rater Reliability" by <i>Brendan Eagan, Jais Brohinsky, Jingyi Wang and David Williamson Shaffer</i></p> <p><i>Keywords:</i> interrater reliability, coding, reliability, validity, statistical analysis</p> <p><i>Abstract</i></p>	<p>(7103). Towards Automatic Cross-Language Classification of Cognitive Presence in Online Discussions" by <i>Gian Barbosa, Raissa Camelo, Anderson Pinheiro Cavalcanti, Péricles Miranda, Rafael Ferreira Mello , Vitomir Kovanovic and Dragan Gasevic</i></p> <p><i>Keywords:</i> Community of Inquiry Model, Cross-Language Classification, Content Analytics, Online Discussion, Optimization</p> <p><i>Abstract</i></p>
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30 Min Break

Conference closing	09:00	12:00	16:00	17:00	00:00 (+1)	01:00 (+1)	03:00 (+1)	<p>Conference Closing and Keynote (90 min)</p> <p>Keynote: Professor Milena Tsvetkova, London School of Economics, The United Kingdom (60 min): Group Learning Analytics</p> <p><i>Abstract</i></p> <p>Keynote QA</p>
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