

**15<sup>th</sup> International Conference on  
Cognition and Exploratory Learning in Digital Age  
CELDA 2018  
Budapest, Hungary**

**CONFERENCE PROGRAM**

**Sunday 21<sup>st</sup>, October 2018**

**08:15-19:20 Welcome Desk – Room Board** - (closes for lunch - 13:00 to 14:15)

**09:45-10:00 Session O – Opening Session  
(Room Zsolnay I +II)**

**OPENING SESSION**

*Profs. Demetrios G Sampson, Dirk Ifenthaler and Pedro Isaias*

**10:00-11:00 Session KL1 – Keynote Presentation  
(Room Zsolnay I +II)**

**LEARNING AS REFLECTIVE SEARCH: MODELING CONVERGENT AND DIVERGENT PROCESSES IN SOCIAL EXPLORATORY SEARCH**

*by Professor Tobias Ley, Professor for Learning Analytics and Educational Innovation, Head of the Center of Excellence in Educational Innovation, Tallinn University, Estonia*

**11:00-11:30 Coffee Break**

**11:30-13:00 Session FP 21.1  
Technology, Learning and Expertise  
(Room Zsolnay I +II)  
Chair: Joan Swanson**

**GET OUT! - HELPING TEACHERS ORCHESTRATE OUTDOOR GAME-BASED LEARNING ACTIVITIES (F081)**

*Kadri Mettis and Terje Väljataga*

**USABILITY EVALUATION OF A VIRTUAL LEARNING ENVIRONMENT: A UNIVERSITY CASE STUDY (F173)**

*Attila Vertesi, Huseyin Dogan, Angelos Stefanidis, Giles Ashton and Wendy Drake*

**NET BENEFITS OF FACE-TO-FACE VERSUS ONLINE INSTRUCTION AT SCHOOL: A REPETITIVE FACTORIAL EXPERIMENT IN AN ECOLOGICAL SETTING (F051)**

*Stephan Poelmans, Katie Goeman and Yves Wautelet*

**11:30-13:00 Session FSP 21.2  
Acquisition of Expertise // Other  
(Room Rákóczi I)**

**Chair: Jessnor Elmy Mat-jizat**

**RELATIONSHIP BETWEEN GOAL ORIENTATION, CONCEPTION OF LEARNING AND LEARNING BEHAVIOR (F109)**

*Mai Yokoyama and Kazuhisa Miwa*

**DEVELOPING TRANSVERSAL COMPETENCES IN ENGINEERS (S116)**

*Juliana de Melo Bezerra, Cristiane Aparecida Martins, Lara Kühn Teles, Neusa Maria Franco de Oliveira, Maria Margareth da Silva, Leila Ribeiro dos Santos and Raquel Caratti Piani*

**START@UNITO: A SUPPORTING MODEL FOR HIGH SCHOOL STUDENTS ENROLLING TO UNIVERSITY (S193)**

*Barbara Bruschi, Valter Cantino, Roberto Cavallo Perin, Francesca Culasso, Barbara Giors, Marina Marchisio, Carla Marellò, Matteo Milani, Lorenza Operti, Alberto Parola, Sergio Rabellino, Matteo Sacchet and Laura Scomparin*

**FOSTERING STEM EDUCATION CONSIDERING FEMALE PARTICIPATION GAP (S117)**

*Juliana de Melo Bezerra, Lara Kühn Teles, Cristiane Aparecida Martins, Neusa Maria Franco de Oliveira, Maria Margareth da Silva, Leila Ribeiro dos Santos and Raquel Caratti Piani*

**13:00-14:15 Lunch Break**

**14:20-16:30 Session FSP 21.3**

**Pedagogical Issues Related With Learning Objects**

**(Room Zsolnay I +II)**

**Chair: Masanori Yamada**

**LANGUAGE AND ELECTRONIC MEDIUM SKILLS DEVELOPMENT THROUGH AUTONOMOUS AND IDEOLOGICAL PRACTICES (F101)**

*Odette Bourjaïli Radi*

**A MODEL FOR ENRICHING AUTOMATIC ASSESSMENT RESOURCES WITH FREE-TEXT ANNOTATIONS (F134)**

*Luigi Di Caro, Sergio Rabellino, Michele Fioravera and Marina Marchisio*

**SHARED COOPERATIVE ACTIVITIES IN PARENT-CHILD DYADS IN AN EDUCATIONAL ROBOTICS WORKSHOP (F083)**

*Katarzyna Potęga vel Żabik and Lukasz Tanaś*

**EXPLORING THE IMPACT OF A STEM INTEGRATION TEACHER PROFESSIONAL DEVELOPMENT PROGRAM ON EARLY CHILDHOOD TEACHER'S PEDAGOGICAL BELIEFS (S038)**

*Hengameh Kermani and Jale Aldemir*

**COMPARATIVE STUDY OF TEACHING MATHEMATICS IN TWO UNIVERSITIES IN LATVIA (S166)**

*Evija Kopeika and Anna Vintere*

**14:20-16:30 Session FSP 21.4**

**Technology, Learning and Expertise**

**(Room Rákóczi I)**

**Chair: William Koomson**

**AUTODIDACT: INTRODUCING THE CONCEPT OF MUTUAL LEARNING INTO A SMART FACTORY INDUSTRY 4.0 (F063)**

*Fazel Ansari, Philipp Hold, Walter Mayrhofer, Sebastian Schlund and Wilfried Sihn*

**IMPLEMENTATION OF AN ADAPTIVE INSTRUCTIONAL DESIGN FOR A PHYSICS MODULE IN A LEARNING MANAGEMENT SYSTEM (F131)**

*Christof Imhof, Per Bergamin, Ivan Moser and Matthias Holthaus*

**VALIDITY AND RELIABILITY OF THE TEACHER LEADERSHIP INVENTORY IN MALAYSIAN EDUCATIONAL CONTEXT (F028)**

*Mahaliza Mansor, Jamal Nordin Yunus and Fanny Kho Chee Yuet*

**TRANSFER LEARNING OF COGNITIVE CONTROL USING MOBILE APPLICATIONS (S049)**

*Vincent Setiawan, Tricia Jing Yi Chor, Yee Qi Lai, Gan Wang, Wei Lok Yap and W. Quin Yow*

**APPLICATION OF SECOND LIFE IN PROMOTING COLLABORATIVE LEARNING (S188)**

*Amit Sharma and Salman Nazir*

**16:30-17:00 Coffee Break**

**17:00-19:10 Session FSP 21.5**

**Assessment of Exploratory Learning Approaches // Other**

**(Room Zsolnay I +II)**

**Chair: Fazel Ansari**

**FLIPPING YOUR CLASSROOM: A METHODOLOGY FOR SUCCESSFUL FLIPPED CLASSROOMS (F055)**

*Pedro Isaías*

**CLUSTERING AND ANALYSIS OF USER MOTIONS TO ENHANCE HUMAN LEARNING: A FIRST STUDY CASE WITH THE BOTTLE FLIP CHALLENGE (F108)**

*Quentin Couland, Ludovic Hamon and Sébastien George*

**ANALYSING UNIVERSITY STUDENT ACADEMIC PERFORMANCE AT THE UNIT LEVEL (F206)**

*Eric Parkin, Simon Huband, David Gibson and Dirk Ifenthaler*

**SELF-EVALUATION OF OPEN ANSWERS AS A BASIS FOR ADAPTIVE LEARNING SYSTEMS (S120)**

*Egon Werlen and Per Bergamin*

**DIGITAL QUANTITATIVE ASSESSMENT OF QUESTION-ASKING-BASED EXPLORATION (S186)**

*Noam Tor and Goren Gordon*

**17:00-19:20 Session FSP 21.6**

**Educational Psychology // Other**

**(Room Rákóczi I)**

**Chair. Demetrios Sampson**

**ATTRIBUTES OF ENGAGEMENT IN CHALLENGE-BASED DIGITAL LEARNING ENVIRONMENTS (F138)**

*Dirk Ifenthaler, David Gibson and Longwei Zheng*

**STUDY ON THE FACTORS CONTRIBUTING TO THE MOTIVATION OF MATHEMATICAL STUDIES AT THE UNIVERSITY (F168)**

*Anna Vintere*

**BR-MAP: CONCEPT MAP SYSTEM USING E-BOOK LOGS (F181)**

*Masanori Yamada, Atsushi Shimada, Misato Oi, Yuta Taniguchi and Shin'ichi Konomi*

**INSIGHTS INTO PERSUASIVE TECHNOLOGY FOR M-LEARNING USING ACTIVITY THEORY (F113)**

*Nhlanhla A. Sibanyoni and Patricia M. Alexander*

**AN INVESTIGATION INTO PARENTS' CONCERNS ABOUT PROGRAMMING EDUCATION IN JAPANESE PRIMARY SCHOOLS (S189)**

*Yukiko Maruyama*

## Monday 22<sup>nd</sup>, October 2018

08:15-15:30 Welcome Desk – Room Board - (closes for lunch - 13:00 to 14:15)

### 08:50-11:00 Session FSP 22.1

#### Student-centered Learning

(Room Zsolnay I +II)

Chair: *Ditte Kolbæk*

**EFFECTS OF CONTENT AND LANGUAGE INTEGRATED LEARNING CLASS DESIGN BASED ON THE FIRST PRINCIPLE OF INSTRUCTION THEORY: A CASE STUDY (F111)**

*Hao Hao, Hitoshi Susono and Masanori Yamada*

**PROPOSING AND EVALUATING A MODEL OF CO-CONSTRUCTION OF THE LEARNING SCENARIO BY THE LEARNER (F122)**

*Guy Merlin Mbatchou, François Bouchet, Thibault Carron and Philippe Pernelle*

**GAMESONOMY VS SCRATCH: TWO DIFFERENT WAYS TO INTRODUCE PROGRAMMING (F079)**

*Cristina Rebollo Santamaría, Carlos Marín Lora, Inmaculada Remolar Quintana and Miguel Chover Sellés*

**STRENGTHEN ENTREPRENEURIAL CAPACITY IN ENTREPRENEURIAL COMPETITIONS (S040)**

*Su-Chang Chen, Hsi-Chi Hsiao, Jen-Chia Chang, Chun-Mei Chou and Dyi-Cheng Chen*

**SCHOOL DIGITALIZATION FROM THE TEACHERS' PERSPECTIVE IN RUSSIA (S159)**

*Irina Dvoretzkaya*

### 11:00-11:30 Coffee Break

### 11:30-13:10 Session FSP 22.2

#### Technology and Mental Models

(Room Zsolnay I +II)

Chair: *Stephan Poelmans*

**DIGITAL ETHNICITY (F021)**

*Nan B. Adams*

**SUITABLE JUDGEMENT ASSISTANCE OF VISUALIZATION METHOD FOR SENSOR LOG OVERLAPPING ON DAILY VIDEO (F190)**

*Takuya Ishioka, Naka Gotoda, Christian Alo, Takayuki Kunieda, Rihito Yaegashi and Toshihiro Hayashi*

**THE NARRATIVE OF THE FACEBOOK SCANDAL FROM TWEETS: NARRATIVE ANALYSIS OF #DELETEFACEBOOK (S090)**

*Yasmine Khosrowshahi and Ananda Mitra*

**COGNITIVE ENERGY FLOW MODEL CONCEPT FOR VIRTUAL STUDENT (S174)**

*Viktors Zagorskis, Atis Kapanieks, Aleksandrs Gorbunovs and Zane Kadakovska*

### 11:30-13:00 Session FP 22.3

#### Assessment of Exploratory Technologies

(Room Palace)

Chair: *Paula Hodgson*

**GAMIFIED MICRO-LEARNING FOR INCREASED MOTIVATION: AN EXPLORATORY STUDY (F066)**

*Till Halbach and Ivar Solheim*

**CODING AND COMPUTATIONAL THINKING WITH ARDUINO (F151)**

*Veronica Rossano, Teresa Roselli and Gaetano Quercia*

**PROBLEM-BASED LEARNING AND COMPUTER-BASED SCAFFOLDS IN DISTANCE EDUCATION (F043)**

*Mahnaz Moallem and Elizabeth Igoe*

### 13:00-14:15 Lunch Break

### 14:15-15:30 Reflection Papers Session 22.4

(Room Zsolnay I +II)

Chair: *Dirk Ifenthaler*

**HOLOGRAPHIC REALITY IN EDUCATION: THE FUTURE OF AN INNOVATIVE CLASSROOM (R087)**

*Athanasia Maria Tsiampa and Konstantina Skolariki*

**HOW STUDENTS-MANAGERS USE DESIGN THINKING TO COLLECT IT-PROJECT REQUIREMENTS (R136)**

*Elvira Strakhovich*

**INTEGRATING TECHNOLOGY AND PEDAGOGY IN UNDERGRADUATE TEACHER EDUCATION (R091)**

*Virginia Rich Lee*

**EMPOWERING UNIVERSITY STUDENTS WITH BLOCKCHAIN-BASED TRANSCRIPTS (R157)**

*Timothy Arndt*

**COMPARISON OF DEVELOPED IN “EFFICIENSEA2” PROJECT PLATFORM “BALTICWEB” WITH STANDARD ECDIS (F142)**

*Inese Barbare, Andrejs Zvaigzne and Dmitrijs Goreļikovs*

**14:30-15:30 Session SP 22.5**

**Cognition in Education**

**(Room Palace)**

**Chair: Nan Adams**

**DIGITAL LIFE, MATHEMATICAL SKILLS AND COGNITIVE PROCESSES (S200)**

*Maria Lidia Mascia, Simona Perrone, Dianora Bardi, Mirian Agus, Maria Pietronilla Penna and Daniela Lucangeli*

**MIXED DIGITAL MESSAGES: THE ABILITY TO DETERMINE NEWS CREDIBILITY AMONG SWEDISH TEENAGERS (S154)**

*Thomas Nygren and Mona Guath*

**THE USE OF SPACED LEARNING AS A PEDAGOGICAL STRATEGY IN ENHANCING STUDENT LEARNING (S094)**

*Jessnor Elmy Mat-jizat*

**15:45 – Social Event - Conference Tour and Dinner**

**Tuesday 23<sup>rd</sup>, October 2018**

**08:30-13:10 Welcome Desk – Room Board**

**09:00-11:00 Session FP 23.1**

**Technology, Learning and Expertise**

**(Room Zsolnay I +II)**

**Chair: Timothy Arndt**

**INTEGRATION OF CHILDREN WITH SPECIAL NEEDS IN MATHEMATICS THROUGH VIRTUAL REALITY (F059)**

*Thomas Keller, Andreas Hebeisen and Elke Brucker-Kley*

**ONLINE LEARNERS' READINESS AND LEARNING INTERACTIONS: A SEQUENTIAL ANALYSIS (F125)**

*Muhittin Şahin, Sinan Keskin and Halil Yurdugül*

**MOBILE LEARNING: APPLICATION OF WHATSAPP MESSENGER AS A LEARNING TOOL IN A UNIVERSITY DISTANCE LEARNING PROGRAM IN GHANA (F145)**

*William Kofi Koomson*

**VIRTUAL REALITY AT SECONDARY SCHOOL – FIRST RESULTS (F068)**

*Thomas Keller, Philipp Glauser, Nico Ebert and Elke Brucker-Kley*

**11:00-11:30 Coffee Break**

**11:30-13:10 Session FSP 23.2**

**Collaborative Learning**

**(Room Zsolnay I +II)**

**Chair: Odette Bourjaili Radi**

**PROBLEM-BASED LEARNING IN THE DIGITAL AGE (F045)**

*Ditte Kolbaek*

**BUILDING COLLABORATIVE CREATIVITY THROUGH AN ITERATIVE APPROACH (F075)**

*Paula Hodgson, Kristof Corolla and Wai Yee Angel Ho*

**EXPLORING THE RELATIONSHIP BETWEEN KINDERGARTENERS' BUDDY READING AND INDIVIDUAL COMPREHENSION OF MULTIMODAL DIGITAL TEXTS (S098)**

*X. Christine Wang, Tanya Christ and Ming Ming Chiu*

**COLLABORATIVE TESTING STRATEGIES IN A COMPUTING COURSE (S118)**

*Juliana de Melo Bezerra*

**11:30-13:00 Session FP 23.3**

**Technology, Learning and Expertise**

**(Room Palace)**

**Chair: Mahnaz Moallem**

**THE COMMUNICATION PREFERENCES OF COLLEGIATE STUDENTS (F035)**

*Joan Ann Swanson, Susan L. Renes and Anthony T. Strange*

**ONLINE PROFESSIONAL LEARNING COMMUNITIES FOR DEVELOPING TEACHERS' DIGITAL COMPETENCES (F129)**

*Sabine Seufert, Josef Guggemos and Eric Tarantini*

**SELF-ORGANIZING MAP ANALYSIS OF EDUCATIONAL SKILLS USING QUESTIONNAIRE TO UNIVERSITY STUDENTS IN COMPUTING CLASSES (F201)**

*Tadanari Taniguchi, Yukiko Maruyama, Daisaku Kurita, and Makoto Tanaka*

**13:10 Best Paper Awards Ceremony and Closing Session**

**(Room Zsolnay I +II)**

*Profs. Demetrios G Sampson, Dirk Ifenthaler and Pedro Isaias*