

CONFERENCE PROGRAM
20th International Conference on
Cognition and Exploratory Learning in Digital Age (CELDA 2023)

Saturday 21st, October 2023

08:30-19:15 Welcome Desk (closes for lunch – 13:00-14:10)
(Room: Selvagens IV)

09:40-10:00 Session O – Opening Session
(Room: Selvagens I)

OPENING SESSION

Prof.s. Demetrios G. Sampson, Dirk Ifenthaler and Pedro Isaias

10:00-11:00 Session KL – Keynote Presentation
(Room: Selvagens I)

“IMPLEMENTING LEARNING ANALYTICS IN NORWAY”

Professor Barbara Wasson, Centre for the Science of Learning and Technology, Norway

11:00-11:30 Coffee Break (*Foyer*)

11:30-13:00 Session 21.1
Exploratory Technologies
(Room: Selvagens I)
Chair: Mohd Azli Jailani

VISUALIZATION ONBOARDING DESIGNED BY USERS: AN EMPIRICAL STUDY (F099)

Margit Pohl, Benjamin Potzmann, Christina Stoiber and Wolfgang Aigner

SCORE PREDICTION FROM PROGRAMMING EXERCISE SYSTEM LOGS USING MACHINE LEARNING (F159)

Tetsuo Tanaka and Mari Ueda

THE EFFECTS OF AGE AND LEARNING WITH EDUCATIONAL ROBOTIC DEVICES ON CHILDREN'S ALGORITHMIC THINKING (F161)

Charoula Angeli, Panayiota Diakou and Vaso Anastasiou

11:30-12:50 Session 21.2

Cognition In Education

(Room: Selvagens V)

Chair: Patricia Brockmann

IMPLICIT EPISTEMOLOGY - THE BELIEFS OF STUDENTS OF EDUCATION SCIENCES (F066)

Anita Gramigna and Giorgio Poletti

ON THE PREDICTORS OF COMPUTATIONAL THINKING SELF-EFFICACY (F156)

Josef Guggemos

MAIN FACTORS FOR IMPROVING THE EFFECTIVENESS OF MATHEMATICS STUDIES (S050)

Anda Zeidmane and Natalija Sergejeva

13:00-14:15 Lunch Break (Restaurant “*Oceano*” 2nd Floor)

14:15-16:15 Session 21.3
Acquisition Of Expertise // Student-centered Learning
(Room: Selvagens I)
Chair: Alan Weber

HYBRID SIMULATION OF A SCIENTIFIC CONFERENCE: INQUIRY-BASED LEARNING TO ENABLE MASTER'S DEGREE STUDENTS TO ACQUIRE RESEARCH SKILLS (F025)

Patricia Brockmann

THE APPLICATION OF FUZZY DELPHI METHOD IN CONTENT VALIDITY ANALYSIS (F052)

Mohd Azli Jailani and Chong Kim Loy

PATTERN ELEMENTS IN HIGHER VISUAL ART EDUCATION (F106)

Antonina Korepanova and Kai Pata

THREE FRAMEWORKS FOR DATA LITERACY (F170)

Stephen Downes

14:15-16:05 Session 21.4
Learning Paradigms In Academia // Educational Psychology
(Room: Selvagens V)
Chair: Heidi Schuhbauer

TAP OR SWIPE: INTERACTION'S IMPACT ON COGNITIVE LOAD AND REWARDS IN A MOBILE MENTAL MATH GAME (F145)

Patrick Jost, Sebastian Rangger and Andreas Künz

ARE NEWLY UNDERGRADUATES SELF-DIRECTED, RESILIENT, AND SKILLFUL DURING ONLINE LEARNING? (F048)

Mohd Tajudin Md Ninggal, Rohaizak Omar and Azleen Ismail

THE IMPACT OF A PROJECT-BASED LEARNING ENVIRONMENT ON THE DEVELOPMENT OF UNDERGRADUATE STUDENTS' DIGITAL LITERACY SKILLS (F166)

Ourania Miliou and Charoula Angeli

SHAKING THE "FOUNDATIONS OF EDUCATIONAL TECHNOLOGY" (S133)

Suzanne de Castell and Jennifer Jenson

16:15-16:45 Coffee Break (Foyer)

16:45-19:15 Session 21.5
Assessment Of Exploratory Technologies
(Room: Selvagens I)
Chair: Dirk Ifenthaler

MATHEMATICAL PROBLEM-SOLVING BY MEANS OF COMPUTATIONAL THINKING AND PROGRAMMING: A USE-MODIFY-CREATE APPROACH (F016)

Nils Kristian Hansen and Said Hadjerrouit

HOW TO DEAL WITH AI-POWERED WRITING TOOLS IN ACADEMIC WRITING: A STAKEHOLDER ANALYSIS (F022)

Michael Burkhard

ANALYSING AFFORDANCES OF THE E-ASSESSMENT SYSTEM NUMBAS IN MATHEMATICS EDUCATION FROM AN ACTIVITY THEORY PERSPECTIVE (F036)

Said Hadjerrouit and Celestine Ifeanyi Nnagbo

HOMOGENEITY OF TOKEN PROBABILITY DISTRIBUTIONS IN CHATGPT AND HUMAN TEXTS (F105)

Dragica Ljubisavljević, Marko Koprivica, Aleksandar Kostić and Vladan Devedžić

THE "FERNSTUDENT". ENHANCING THE POTENTIAL OF HYBRID TEACHING BASED ON USER-CENTERED DESIGN (F162)

Daniel Ullrich, Andreas Butz and Sarah Diefenbach

16:45-19:00 Session 21.6
Technology And Mental Models
(Room: Selvagens V)
Chair: Joan Swanson

USING GRAPH-BASED HEURISTICS TO ANALYZE A SYSTEMATIC LITERATURE REVIEW AND VALIDATE AN EXPERT-BASED TAXONOMY (F055)

Nadine Schlomske-Bodenstein, Bernhard Standl and Pablo Pirnay-Dummer

MINING, ANALYZING, AND MODELING THE COGNITIVE STRATEGIES STUDENTS USE TO CONSTRUCT HIGHER QUALITY CAUSAL MAPS (F057)

Allan Jeong and Hyoung Seok-Shin

ANCHORING CONCEPTS INFLUENCE ESSAY CONCEPTUAL STRUCTURE AND TEST PERFORMANCE (F062)

Roy B. Clariana and Ryan Solnosky

"I'M AFRAID TO FAIL THE TEST" - MOTIVATIONAL ORIENTATION, STATISTICS ANXIETY AND ACADEMIC DISHONESTY (F085)

Yovav Eshet, Pnina Steinberger and Keren Grinautsky

APPLICATION OF MOBILE EEG FOR COGNITIVE TESTING IN NEURODEVELOPMENTAL DISORDERS (S180)

Natalia Georgara and Spyridon Doukakis

Sunday 22nd, October 2023

08:30-15:45 Welcome Desk (closes for lunch – 13:00 to 14:10)
(Room: Selvagens IV)

08:50-11:00 Session 22.1
Technology, Learning And Expertise
(Room: Selvagens I)
Chair: Aliza Ali

LEGAL ISSUES AND RISKS OF INSTRUCTION VIA MASSIVE OPEN ONLINE COURSES (MOOCS): SMALL MACAO VS. SOME MAJOR JURISDICTIONS (F108)
Victor K. Y. Chan
CHATGPT AND BARD IN EDUCATION: A COMPARATIVE REVIEW (F117)
Gustavo Simas da Silva and Vânia Ribas Ulbricht
FOSTERING PROBLEM SOLVING AND CRITICAL THINKING IN MATHEMATICS THROUGH GENERATIVE ARTIFICIAL INTELLIGENCE (F139)
Alice Barana, Marina Marchisio and Fabio Roman
USAGE OF AND ATTITUDES TOWARDS AI-TECHNOLOGY IN THE LEARNING PROCESSES OF FIRST-YEAR STUDENTS (S100)
Jan Delcker, Joana Heil, Dirk Ifenthaler, Sabine Seufert and Lukas Spirgi
PROFESSIONAL DEVELOPMENT OF FOREIGN LANGUAGE TEACHERS: OPPORTUNITIES, CHALLENGES AND DEVELOPMENT PATHWAYS (S193)
Zhang Yajuan, Maria da Piedade Vaz Rebelo and Maria Augusta Pereira Nascimento

09:00-11:00 Session 22.2
Student-centered Learning // Other
(Room: Selvagens II)
Chair: Larisa Olesova

STUDENT CENTERED METHODS, SOFT SKILLS AND COMPETENCY BASED LEARNING FROM THE VIEW OF ENGINEERING AND TECHNICAL TEACHER STUDENTS (F135)
Ibolya Tomory
POTENTIAL OF ADAPTIVE E-LEARNING FOR KNOWLEDGE HETEROGENOUS GROUPS OF STUDENTS IN ENGINEERING DESIGN EDUCATION (F123)
Frederike Kossack, Eike Uttich and Beate Bender
CAPACITY BUILDING ACROSS HIGHER EDUCATION AND RURAL YOUTH IN WINNOVATORS SPACE (F029)
Kai Pata, Kristi Jüristo, Matej Zapušek, Nathalie Leiba, Sanja Popovic Pantic, Vladan Devedzić, Sonja Radenkovic, Mirjana Devedzić, Marija Blagojević and Danijela Milošević
PRIVACY CONCERNS DURING REMOTE EMERGENCY LEARNING IN HIGHER EDUCATION IN QATAR (F116)
Byrad Yyelland, Alan S. Weber, Robert Bianchi, Wajdi Zaghouani, Khawla Kittaneh, Ryad Ghanam, Selma Fejzullaj, Huda Iqbal and Afreena Niaz

11:00-11:30 Coffee Break (Foyer)

11:30-13:00 Session 22.3
Assessment Of Exploratory Learning Approaches
(Room: Selvagens I)
Chair: Sarah Diefenbach

EFFECTS OF AN IMMERSIVE, MULTILINEAR FUTURE SCENARIO FOR EDUCATION PURPOSES (F130)
Flurina Hilber, Thomas Keller and Elke Brucker-Kley
GROUPING STUDENTS' LEARNING PATTERNS WITH MANABA'S LOG DATA BY K-MEANS (F154)
Kai Li
EDUCATION TO PREVENT HUMAN MECHANISATION IN A FACULTY OF INFORMATICS: DEVELOPING LEARNING MATERIALS TO IMPROVE STUDENTS' VERBAL COMMUNICATION SKILLS (F204)
Mari Ueda, Isoharu Nishiguchi, Hiroshi Tanaka, Kazunori Matsumoto and Tetsuo Tanaka

11:30-13:10 Session 22.4
Exploratory Technologies
(Room: Selvagens II)
Chair: Jan Delcker

INTEGRATING LARGE LANGUAGE MODELS IN ART AND DESIGN EDUCATION (F063)
Alberto Giretti, Dilan Durmus, Massimo Vaccarini, Matteo Zambelli, Andrea Guidi and Franco Ripa di Meana
EXPLORING INFRANODUS: A TEXT ANALYSIS TOOL (F195)
Irina Tursunkulova, Suzanne de Castell and Jennifer Jenson
THE EFFECTS OF LEARNING ANALYTICS-BASED FEEDBACK ON KNOWLEDGE ACQUISITION: THE ROLE OF FEEDBACK LITERACY (S067)
Mustafa Tepgeç, Joana Heil and Dirk Ifenthaler
PROMOTING SOCIO-EMOTIONAL LEARNING WITH A VIRTUAL ROBOT FACILITATOR OF SMALL GROUP DISCUSSIONS: A CROSS-CULTURAL STUDY (S127)
Goren Gordon, Laura Di Giunta, Chiara Riccioni, Clementina Comitale, Giulia Gliozzo and Carolina Lunetti

13:00-14:15 Lunch Break (Restaurant “Oceano” 2nd Floor)

14:15-15:10 Session 22.5
Life-long Learning // Just-in-time And Learning-on-demand
(Room: Selvagens I)
Chair: Demetrios G. Sampson

STUDY ON THE TRAINING TO IMPROVE EMPLOYEES' EMOTIONAL WELL-BEING AT WORKPLACE (S141)
Anna Vintere
EARLY CONCEPT FOR A GENERIC AND DOMAIN AGNOSTIC SERIOUS GAME FRAMEWORK (S120)
Daniel Atorf, Sergius Dyck and Ehm Kannegieser
KEYBOARD AS A STIMULATOR IN TIMBRE RECOGNITION TRAINING (F019)
Adam Rosiński

14:15-15:15 Session 22.6
Virtual University
(Room: Selvagens II)
Chair: Byrad Yyelland

TEACHING REFLECTIVE USE OF TECHNOLOGY: A PILOTED WORKBOOK BASED ON EVACUATIONS (F187)
André Greubel, Julia Wenkmann, Hans-Stefan Siller and Martin Hennecke
VALUE AND CHALLENGES IN DEVELOPING OUTCOMES-BASED STUDENTS-CENTRED PROGRAMME (F059)
Aliza Ali

15:30 – [Social Event](#) (meeting point at the “Foyer”)

Monday 23rd, October 2023

08:30-13:15 Welcome Desk
(Room: Selvagens IV)

09:00-11:00 Session 23.1
Technology, Learning And Expertise
(Room: Selvagens I)
Chair: Allan Jeong

EVALUATING POPULAR MOOC PLATFORMS BY GENERATIVE ARTIFICIAL INTELLIGENCE (AI) ROBOTS: HOW CONSISTENT ARE THE ROBOTS? (F110)
Victor K. Y. Chan
CHARACTERIZATION OF PHYSICAL COMPUTING DEVICES BY ATTRIBUTES FROM A PEDAGOGICAL PERSPECTIVE (F126)
Eric Schätz and Alke Martens
LEVERAGING EMOTIONS TO ENHANCE LEARNING SUCCESS IN ONLINE EDUCATION: A SYSTEMATIC REVIEW (F137)
Nicolai Plintz and Dirk Ifenthaler
AUGMENTED REALITY AND VIRTUAL REALITY IN PRESERVICE TEACHER PREPARATION: A SYSTEMATIC REVIEW OF EMPIRICAL LITERATURE (F112)
Joan Ann Swanson

09:10-11:00 Session 23.2

Collaborative Learning // Pedagogical Issues Related With Learning Objects

(Room: Selvagens II)

Chair: Pablo Pirnay-Dummer

POTENTIAL CHALLENGES AND SUPPORT MECHANISMS FOR STUDENTS TRANSITIONING TO UNIVERSITY LIFE (F073)

Liga Zvirgzdina, Anda Zeidmane and Natalija Sergejeva

SYSTEMATIC LITERATURE REVIEW OF THE EFFORT OF GAMING ELEMENTS ON E-LEARNING PLATFORMS (F017)

Tobias Harald Popp and Heidi Schuhbauer

HIGHER EDUCATION TRAINING ACTIVITIES IN INTERNATIONAL ENVIRONMENTS FOR DEVELOPING SKILLS OF CIVIL-MILITARY COOPERATION (S142)

Antonino Cambria, Marina Marchisio and Enrico Spinello

THE POWER OF DIGITAL PLATFORMS: FACILITATING THE COLLABORATION OF UNDERGRADUATE COMPUTER SCIENCE PROJECT TEAMS (R097)

Margaret R. Scaturro Heil

THE TRIGGER-BASED DISCUSSION-ORIENTED CONTINUOUS LEARNING MODEL (F096)

Dina A. Zekry and Gerard T. McKee

11:00-11:30 Coffee Break (Foyer)

11:30-13:00 Session 23.3

Cognition In Education

(Room: Selvagens I)

Chair: Josef Guggemos

ONLINE PRESENCE, METACOGNITION, AND COURSE DESIGN WITHIN THE COMMUNITY OF INQUIRY (F081)

Larisa Olesova and Ayesha Sadaf

THE USE OF METACOGNITIVE STRATEGIES IN STORYTELLING TO EXAMINE PRESCHOOL CHILDREN'S LISTENING COMPREHENSION SKILLS (F032)

Mahani Abdul Malik

RELATIONSHIP BETWEEN TEACHING PRESENCE AND SHARED-METACOGNITION IN ONLINE CASE-BASED COURSES (F084)

Ayesha Sadaf, Stella Yun Kim and Adrie Koehler

13:05 Best Paper Awards Ceremony and Closing Session

(Room: Selvagens I)

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