1. Record Nr. UNINA9910635384903321 Autore Ifenthaler Dirk Titolo Open and Inclusive Educational Practice in the Digital World / / edited by Dirk Ifenthaler, Demetrios G. Sampson, Pedro Isaías Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2023 **ISBN** 9783031185120 3031185129 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (250 pages) Collana Cognition and Exploratory Learning in the Digital Age., 2662-5636 Disciplina 371.33 371.9046 Soggetti Educational technology Inclusive education Educational psychology Digital Education and Educational Technology Inclusive Education **Educational Psychology** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Intro -- Preface -- References -- Acknowledgements -- Contents --Nota di contenuto About the Editors -- Part I: Analytics-Driven Perspectives -- Chapter 1: Behavioral Patterns and Learner Interactions in Enterprise MOOCs -- 1 Introduction -- 2 The openSAP University -- 3 Sequential Analysis of Learning Behavior -- 4 Learner Behavior in Enterprise MOOCs -- 4.1 Sample, Data Collection, and Procedure -- 4.2 Results -- 4.2.1 Behavioral Patterns Over All Courses -- 4.2.2 Differences in Behavioral Patterns According to Topic Area -- 4.2.3 Typical Interaction Sequences -- 5 Discussion -- Appendix: Detailed Findings for System Interactions -- References -- Chapter 2: The Smart MOOC Integrated with Intelligent Tutoring: A Case Study -- 1 Introduction -- 2 Method -- 2.1 Research Model -- 2.2 Participants -- 2.3 Data Collection Tools

and Data Analysis -- 3 Results -- 3.1 Student Views on the Benefits of the Smart MOOC Integrated with Intelligent Tutoring Environment -- 3.2 Student Views on the Disliked Features of the Smart MOOC

Integrated with Intelligent Tutoring Environment -- 3.3 Student Views on the Use of Smart MOOC Integrated with Intelligent Tutoring Environment Developed in Different Learning Contexts -- 3.4 Student Views on the Ease of Use of the Smart MOOC Integrated with Intelligent Tutoring Environment -- 3.5 Suggesting Situations of Students to Use the Smart MOOC Integrated with Intelligent Tutoring Environment to their Friends -- 3.6 Students' Views on the Aspects of the Smart MOOC Integrated with Intelligent Tutoring Environment that Are Open to Improvement -- 4 Conclusion and Discussion -- References --Chapter 3: Incorporating Time in Dispositional Learning Analytics Models -- 1 Introduction -- 2 Temporality in Learning Analytics -- 2.1 The Role of Time in Learning -- 2.2 Seeking Balance -- 2.3 Research Objectives -- 3 Methods -- 3.1 Context and Setting. 3.2 Participants -- 3.3 E-Tutorial Log Data -- 3.4 Disposition Data --3.5 Statistical Analyses -- 4 Results -- 4.1 Student Engagement Profiles by Clustering Log Data -- 4.2 Relevance of Clustering-Based Profiles for Course Performance -- 4.3 Profiles and Student Aptitudes as Dispositions -- 5 Discussion and Conclusions -- References --Chapter 4: The GoalTrees Hierarchical Goal-Setting Intervention for Higher Education -- 1 Introduction -- 1.1 Hierarchical Goal Setting in a Digital Study Assistant -- 2 Three Recent Studies -- 2.1 Development History -- 2.2 Study 1: Comparative UI/UX Testing --2.2.1 Methods -- 2.2.2 Results -- 2.2.3 Amount of Interactions and Time on Task -- 2.3 System Usability Scale -- 2.3.1 Ranking --2.3.2 Limitations -- 2.3.3 Summary and Implications -- 2.4 Study 2: Effects of OCEAN Personality Traits -- 2.4.1 Methods -- 2.4.2 Results -- 2.4.3 Summary and Implications -- 2.5 Study 3: Root Goal Elicitation with Priming -- 2.5.1 Methods -- 2.5.2 Results -- 2.5.3 Summary and Implications -- 3 Discussion and Outlook -- 3.1 GoalTrees Software -- References -- Chapter 5: A Learner's Behavior Model for an E-Learning Hybrid Recommender System -- 1 Introduction -- 2 Related Works -- 3 Problem Statement -- 4 Description of the Student's Behavior: The Mode of Reasoning and the Degree of Activity -- 5 Implementation of the Learner's Behavior Model -- 5.1 Experimental Protocol -- 6 Learning Steps -- 6.1 Data Collection -- 7 Evaluation -- 8 Conclusion and Perspectives -- References -- Chapter 6: A User-Focused Approach to Developing a Digital Study Assistant Through a Mixed Method Design -- 1 Introduction -- 1.1 Study Assistant Software Prototype Used in Our Field Study -- 1.2 Modular Software Architecture with Recommender Modules -- 2 Methods -- 2.1 Quantitative: Data Collection, Dataset, and Data Analysis. 2.2 Qualitative: Design Thinking Workshops -- 3 Results -- 3.1 Quantitative Data Analysis Results -- 3.2 Quantitative Results: Design Thinking Workshop -- 4 Discussion -- 4.1 Interpretation of the Results -- 4.2 Limitations -- 4.3 Future Development -- References -- Chapter 7: The Effect of Social Closeness on Perceived Satisfaction of Collaborative Learning -- 1 Introduction -- 2 Background -- 2.1 Social Closeness -- 2.2 Ego Networks -- 2.3 Hypotheses -- 3 Method -- 3.1 Participants and Design -- 3.2 Measures -- 3.2.1 Social Closeness -- 3.2.2 Perceived Satisfaction of Collaborative Learning -- 4 Results -- 4.1 The Impact of Demographic Factors on Social Closeness and Collaborative Learning -- 4.2 Impact of Social Closeness on Collaborative Learning -- 5 Discussion -- 6 Conclusion --References -- Chapter 8: Evaluating the Transposition of a Learning Analytics Dashboard Co-design Tangible Tool to a Digital Tool -- 1 Introduction -- 2 Previous Works -- 2.1 Participatory Design -- 2.2 Learning Analytics Dashboard -- 3 RQ1.1: Transposition of a Tangible Tool to a Digital Tool -- 3.1 Material -- 3.1.1 The PADDLE Method --

3.1.2 Transposition of Relevant Properties of PADDLE -- 3.1.3 The ePADDLE Method -- 3.1.4 Additional Data Collected with ePADDLE to Evaluate Collaboration -- 3.2 Method and Data Collected -- 3.2.1 Conditions and Methodology of the Experiment with PADDLE -- 3.2.2 Conditions and Methodology of the Experiment with ePADDLE -- 3.2.3 Method -- 3.3 Results of the Experiments -- 4 Discussion -- 5 RQ1.2: Digital Tool Used in Face-to-Face -- 5.1 Material and Method -- 5.2 Results -- 5.3 Discussion -- 6 Conclusion and Perspectives --References -- Chapter 9: A Comparative Analysis of Approaches to Design and Capitalize Data Indicators -- 1 Introduction -- 2 Related Works -- 3 Capitalization: Definition and Concepts. 3.1 Defining Data Indicator Capitalization -- 3.2 Criteria to Compare Approaches in Data Indicator Design -- 3.2.1 Appropriability -- 3.2.2 Reusability -- 3.2.3 Shareability -- 3.2.4 Adaptability -- 4 Comparing Data Indicator Design Approaches -- 4.1 Selection of Indicator Design Approaches -- 4.2 Literature Review Grid -- 5 Conclusion --References -- Part II: Practice-Based Perspectives -- Chapter 10: Analyzing Students' Computational Thinking and Programming Skills for Mathematical Problem Solving -- 1 Introduction -- 2 Literature Review and Theoretical Basis -- 2.1 Mathematical Thinking (MT) -- 2.2 Computational Thinking (CT) -- 2.3 Programming -- 2.4 Connecting MT, CT, and Programming -- 3 Methodology -- 3.1 Context of the Study, Research Question, and Methods -- 3.2 The Task -- 3.3 Group Work Activities -- 4 Results -- 4.1 Group 1 -- 4.2 Group 2 --4.3 Group 3 -- 5 Discussion -- 6 Pedagogical Implications -- 7 Limitations and Conclusions -- References -- Chapter 11: Development of Students' Problem-Solving Skills in Primary School Physics Lessons -- 1 Introduction -- 2 Higher-Order Thinking Skills and Technology-Enriched Learning Environment -- 3 Methodology --3.1 Research Design -- 3.2 Procedure and Data Collection -- 3.2.1 Problem-Solving Skills -- 3.2.2 Students' Survey -- 4 Results -- 4.1 Effect of the Intervention to Students' Problem-Solving Skills -- 4.2 Survey -- 5 Discussion -- 6 Conclusion -- References -- Chapter 12: Assessing COMPER Environment to Support Self-Regulation During Autonomous Work -- 1 Introduction -- 2 Supporting Students' Autonomous Work at the University -- 2.1 Promoting SRL Strategies --2.2 Exercisers, Activity Visualization, and SRL -- 3 Supporting Self-Regulation in an Introductory Shell Programming Course -- 3.1 The Observed Tools -- 3.2 Implementation of the Tools in a Distance Learning Programming Course. 3.3 Research Questions -- 4 Study -- 4.1 Participants -- 4.2 Collected Data -- 5 Results -- 5.1 Learners' Abilities to Implement SRL Strategies -- 5.2 Analysis of COMPER Project's Combination Use and Usefulness -- 5.2.1 Analysis of the Exerciser Platform's Uses and Usefulness --5.2.2 Analysis of the OLM Module's Uses and Usefulness -- 5.3 SRL Profiles and Services Used -- 5.3.1 OLM Module Usability -- 5.3.2 Comparison of the Four Visualizations -- 6 Discussion -- 6.1 Usability and Implementation of Tools -- 6.2 Usefulness of the Tools -- 7 Conclusion -- References -- Chapter 13: Reflective Teacher Education in the Digital Age -- 1 Introduction -- 2 Rationale of the Research Project -- 3 Study Design and Methodology -- 4 Results -- 4.1 Development and Implementation of the Learning Design -- 4.2 Data Collection and Analysis -- 5 Al-Based Development Potentials -- 5.1 AIED: Artificial Intelligence in Education -- 5.2 AI Applications in Education -- 5.3 Implementation Approach of the Intelligent Tutoring System -- 5.4 Conceptual Implementation of the Intelligent Tutoring System in Teacher Education Processes -- 6 Conclusion and Discussion -- References -- Chapter 14: Examining of Learners'

Usage in Assessment Management System Which Integrated Adaptive Mastery Testing -- 1 Introduction -- 1.1 Adaptive Mastery Testing (AMT) -- 2 Method -- 2.1 Participants -- 2.2 Adaptive Mastery Testing Environment -- 2.2.1 Presentation Model and Learner Interface -- 2.2.2 Learner/User Model -- 2.2.3 Assessment Model -- 2.2.4 Domain Model -- 2.2.5 Item Pool -- 2.3 Data Collection Tools and Data Analysis -- 3 Findings -- 3.1 Participation Structure of the Learners on Adaptive Mastery Testing Environment -- 3.2 Examining of the Learners' Usage of Adaptive Mastery Testing -- 4 Conclusion -- References -- Index.

Sommario/riassunto

This book is about inclusivity and open education in the digital age. It reports the latest data on this topic from the 2021 Cognition and Exploratory Learning in the Digital Age (CELDA) conference. This annual conference focuses on challenges pertaining to the evolution of the learning process, the role of pedagogical approaches and the progress of technological innovation, in the context of the digital age. The material in this book represents the work of both researchers and practitioners in an effort to cover both technological and pedagogical issues in ground-breaking studies. The book covers a wide array of topics examining the deployment of learning technologies, proposing pedagogical approaches and practices to address digital transformation, presenting case studies of specific technologies and contexts and overall debating the contribution of learning technologies for the improvement of the learning process and the experience of students and for the development of key competences. It represents the best work reported during CELDA 2021, comprising expanded peer reviewed chapters from best papers focusing on open education models, inclusive learning environments and adaptive as well as personalized learning support.