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| Nota di contenuto | Section 1: Introduction -- Chapter 1: The Importance of Applying Data Analytics Approaches in Educational Games and Gamification Systems -- Section 2: Learning Analytics in Educational Games and Gamification Systems -- Chapter 2: Learning Analytics in Educational Games: Potentials, Approaches, Challenges -- Chapter 3: Assessing Motivational Factors through Learning Analytics in Digital Game-Based Learning -- Chapter 4: Supporting Team-Based Learning in Challenge-Based Game-Based Learning -- Chapter 5: Towards an Analytics Framework for Educational Mini Games across Subjects -- Chapter 6: Sequential Data Mining Approaches in Game Analytics -- Chapter 7: iMoodle: An Intelligent Gamified Moodle to Identify “at-Risk” Students -- Section 3: Academic Analytics and Learning Assessment in Educational Games and Gamification Systems -- Chapter 8: The Effect of 3D Board Game on Learning Human Internal Organs for the Elementary Students -- Chapter 9: Online Multiplayer Educational Game with Analytics (OMEGA) -- Chapter 10: Educational Gamification Improves Business Performances -- Chapter 11: Benefits of a Gamification Platform for Assessing the Development of Computational Thinking -- Section 4: Modeling Learners and Finding Individual |

Differences by Educational Games and Gamification Systems -- Chapter 12: Educational Games: Modeling Individual Differences of Learners -- Chapter 13: Learning Modeling and Analytics in Computational Thinking Games for Education -- Chapter 14: Towards a New Unobtrusive Approach for Learner Profiling Using Games -- Chapter 15: Considering Personal, Functional, Psychological, Temporal, Playful, Implementable and Evaluative Properties in Gamification: A Conceptual Approach -- Section 5: Conclusion -- Chapter 16: General Guidelines of Incorporating Learning Analytics in Educational Games and Gamification Systems.

Sommario/riassunto

Game-based learning environments and learning analytics are attracting increasing attention from researchers and educators, since they both can enhance learning outcomes. This book focuses on the application of data analytics approaches and research on human behaviour analysis in game-based learning environments, namely educational games and gamification systems, to provide smart learning. Specifically, it discusses the purposes, advantages and limitations of applying such approaches in these environments. Additionally, the various smart game-based learning environments presented help readers integrate learning analytics in their educational games and gamification systems to, for instance, assess and model students (e.g. their computational thinking) or enhance the learning process for better outcomes. Moreover, the book presents general guidelines on various aspects, such as collecting data for analysis, game-based learning environment design, system architecture and applied algorithms, which facilitate incorporating learning analytics into educational games and gamification systems. After a general introduction to help readers become familiar with the subject area, the individual chapters each discuss a different aim of applying data analytics approaches in educational games and gamification systems. Lastly, the conclusion provides a summary and presents general guidelines and frameworks to consider when designing smart game-based learning environments with learning analytics.