As the e-learning industry continues to expand and the methods and tools necessary to create and maintain content and infrastructure applications become more complicated, there is an inherent need for these applications to inter-operate and exchange data in order to better support the needs of learners and educators.

Handbook of Research on E-Learning Standards and Interoperability: Frameworks and Issues promotes the discussion of specific solutions for increasing the interoperability of standalone and Web-based educational tools. This book investigates issues arising from the deployment of learning standards and provides relevant theoretical frameworks and leading empirical research findings. Chapters presented in this work are suitable for practitioners and researchers in the area of educational technology with a focus on content reusability and interoperability.

Topics Covered:

- Adaptable and inclusive e-learning support
- Adaptive assessment
- E-learning standards
- Interoperability of Web-based education systems
- Learning management systems
- Modeling aligned teaching, learning, and assessment
- Satisfaction measurement in education
- Semantic mapping
- Sequencing in e-learning
- Supporting personalization and adaptation in inclusive learning
Section 1: Interoperable E-Assessment Applications

Chapter 1
Support Interoperability and Reusability of E-Assessment Using IMS LD and IMS QTI
Miao Yongzhu (Open University of the Netherlands, The Netherlands)
Boon Jo (Open University of the Netherlands, The Netherlands)
van der Klink Mariel (Open University of the Netherlands, The Netherlands)
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Chapter 2
Interoperable Assessment Based on Competency Modeling
Srinivasan Onjita (Thamkhai University, Thailand)
Gilbert Lester (University of Southampton, UK)

Chapter 3
Implementing Distributed Architectures of Online Assessment Tools Based on IMS QTI ver.2
Tomberg Vladimir (Tallinn University, Estonia)
Lanapere Mart (Tallinn University, Estonia)

Chapter 4
QTI
Piotrowski Michael (ZHAW Zurich University of Applied Sciences, Switzerland)

Chapter 5
Interoperability Issues for Systems Managing Competency Information:
Blandin Bernard (Université Paris Ouest and CESI Group, France)
Frank Geoffery (RTI International, USA)
Laughton Simone (University of Toronto Mississauga Library, Canada)
Hirata Kenji (Toyo University, Japan)

Section 2: Personalization, Interoperability and E-Learning Standards

Chapter 6
Do Current Standards Support Adaptive Sequencing Interoperability?
Gutierrez-Santos Sergio (University of London, UK)

Chapter 7
A Standard-Based Framework to Support Personalisation, Adaptation, and Interoperability in Inclusive Learning Scenarios
Santos O.C. (The National Distance Education University of Spain (UNED), Spain)
Botia Caro J.G. (The National Distance Education University of Spain (UNED), Spain)
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Chapter 8
E-Learning Standards:
Marshall Stephen (Victoria University of Wellington, New Zealand)

Chapter 9
Interoperability, Learning Design and Virtual Worlds:
Farley Helen (University of Queensland, Australia)

Chapter 10
Specification of an Adaptable and Inclusive E-Learning Support System
Green Steve (Teesside University, UK)

Chapter 11
Building a Framework for an English Language Course in an LMS with SCORM Compliant Learning Objects and Activities
Arcos Francisco (University of Alicante, Spain)
Ortega Pablo (University of Alicante, Spain)

Section 3: Metadata, Learning Objects, Ontologies and Semantic Web

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Alexopoulos Andreas D. (University of Patras, Greece)
Solomou Georgias D. (University of Patras, Greece)
Kosmopanopoulos Dimitrios A. (University of Patras, Greece)
Papathedorou Theodore S. (University of Patras, Greece)

Chapter 13
A Common Sense Approach to Interoperability
Taylor Kate (Newnham College, UK)

Chapter 14
Localizing E-Learning Websites in the Semantic Web Era
Kanellopoulos Dimitrius N. (University of Patras, Greece)

Chapter 15
Interoperability:
Ariza Marta R. (University of Jaén, Spain)
Quesada Antonio (University of Jaén, Spain)

Chapter 16
Semantic Mapping between LOM – SCORM Content Package and MPEG-7 Concepts
Vagati Varvara (Ionian University, Greece)

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Rejas-Muslera Ricardo J. (Universidad de Alcalá, Spain)
García-Tejedor Alvaro J. (Universidad Francisco de Vitoria, Spain)
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Chapter 18
Interoperability of Web-Based Education Systems
Hugshon Natalia I. (University of Advancing Technology, USA)

Chapter 19
Diagnostic and Formative E-Assessment in Engineering on a Moodle-Based VLE:
Mora-Aguilar M. C. (Universitat Jaume I, Spain)
Sancho-Bri J. L. (Universitat Jaume I, Spain)

Chapter 20
Interoperability Approach in E-Learning Standardization Processes
Bao Carmen (La Rioja University, UR, Spain)
Castrensa José Maria (Bosque Country University (UPV/IHUI), Spain)

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Chapter 21
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Velaseco Margarida Romero (Universitat Autònoma de Barcelona, Spain)
Serrano María José Hernández (University of Salamanca, Spain)

Chapter 22
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Nacheva-Skopakil Lilyana (Technical University of Gabrovo, Bulgaria)

Chapter 23
Quality e-learning guidelines and their implementation
Míche John (Massey University, New Zealand)
Sadikby Gordon (Massey University, New Zealand)

Chapter 24
Online Delivery of Duf: Studies Currícula in Ireland at Third Level
Nolan Brian (Institute of Technology, Ireland)
Leeson Lorraine (Trinity College Dublin, Ireland)

Chapter 25
Learner Management System in Education: Implications for Pedagogy and Applications to Resources Poor Environments
Eikundayó Olubemija T. (Jackson State University, USA)
Tulah Francis (Jackson State University, USA)
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