



Digital Learning Design and Learning Technologies: E-Learning, LMS and xAPI



Digital Learning Design and Learning Technologies: E-Learning, LMS and xAPI

Technical depth: Practitioner · **Practical mode:** Lab

Introduction

Organisations have moved large parts of their training online, but much of the result is slide decks converted into page-turning modules that learners click through without learning. Tracking breaks between tools, content fails accessibility checks and the data collected says little about performance. This Core Concept course equips practitioners to design and build digital learning with recognised design models, current authoring tools and the interoperability standards that platforms rely on. Participants work hands on throughout and leave with a working digital learning module, published and tested in an LMS, together with its design document.

Course Objectives

- Map an organisation's learning technology ecosystem and choose the right digital modality for each learning need
- Apply SAM, Mayer's multimedia principles and Universal Design for Learning to digital learning design
- Build storyboards, rapid modules, branching scenarios and assessments with current authoring tools
- Configure content for tracking and interoperability using SCORM, xAPI, cmi5 and LTI
- Test digital content for WCAG 2.2 accessibility, mobile delivery and data quality
- Produce and publish a working digital learning module with its design document

Target Audience

- Instructional designers moving from classroom to digital formats
- Digital learning developers building e-learning and microlearning content
- LMS administrators responsible for platform configuration and tracking
- L&D specialists who commission, review or maintain digital content
- Trainers converting instructor-led programmes into blended or online delivery

Course Outline

Day 1: The Learning Technology Landscape

- Learning Technology Ecosystem Map: LMS, LXP, LRS and Authoring Tools
- SAMR Model for Judging Technology Use in Learning
- Digital Modality Selection: E-Learning, Microlearning, Video, Virtual Classroom and Blended
- ISO 21001 Quality Requirements Applied to Technology-Mediated Learning
- Current-State Audit of Learning Platforms and Content Library

Day 2: Design Models and Technical Standards

- SAM Successive Approximation Model for Rapid Digital Design
- Mayer's Multimedia Learning Principles: Coherence, Signalling, Segmenting and Modality
- CAST Universal Design for Learning Guidelines
- SCORM 2004, xAPI 2.0 IEEE 9274.1.1-2023 and cmi5 Specifications
- 1EdTech LTI 1.3 Tool Integration Between Learning Platforms

Day 3: Building Digital Learning

- Storyboard Template: Screen, Interaction, Narration and Assessment Columns
- Rapid Module Build in Articulate Rise 360
- Branching Scenario Build in Articulate Storyline 360 or H5P
- Microlearning Video Scripting and Screen Recording Workflow
- Knowledge Check and Scenario Question Design with Feedback Logic

Day 4: Accessibility, Tracking and Platform Problems

- WCAG 2.2 Accessibility Checks: Captions, Contrast, Keyboard Navigation and Alternative Text
- LMS Upload, Completion Tracking and Package Debugging in SCORM Cloud
- xAPI Statement Design and Learning Record Store Dashboards
- Mobile Responsiveness and Low-Bandwidth Delivery Testing
- LMS and LXP Selection Scorecard: Functional, Integration and Data Protection Criteria

Day 5: Lab Build and the Digital Learning Module

- Digital Learning Design Document Finalisation
 - Module Prototype Build from an Own Storyboard
 - Alpha Review with a Usability and Accessibility Checklist
 - SCORM or xAPI Publishing and LMS Test Launch
 - Peer Showcase and Beta Revision Plan
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Skills You Will Gain

- Digital Learning Design
- Storyboarding
- Rapid Authoring
- Scenario-Based Learning Design
- Learning Interoperability Standards
- Accessible Content Design
- Learning Data Analysis
- Learning Platform Evaluation

Why Attend This Course

- Leave with a working digital learning module, published and tested in an LMS, together with its design document
- Discuss SCORM, xAPI, LTI and accessibility requirements with IT teams and vendors on equal terms
- Avoid the common failures of digital learning: page-turner content, broken tracking and inaccessible screens
- Compare tools and approaches with digital learning practitioners from other sectors and countries

Conclusion

Digital learning works when design decisions, tools and technical standards are chosen together rather than one after another. This course moves from the learning technology landscape, through the design models and interoperability standards, to hands-on building and the accessibility, tracking and platform problems that undermine digital programmes. The final day is spent in the lab, where participants build, review, publish and test their own digital learning module, returning to work with a finished product and a design document that sets the standard for the next one.
