Educause NLII

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Making Yourself Heard in the e-Learning Standards Debate
(program session – “How to Listen to Heavy Metal”)

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Overview

Specification Lifecycle and Where HE Fits In
Why Higher Education’s Opinion Counts
How IMS Listens to Needs
Best Practice
The Role of Educause/NLII
Specification Lifecycle

Requirements → Spec. Writing → Implementation → Evolution
Role of Higher Ed in Spec Lifecycle

Provide *requirements*

Participate in *spec writing* (IMS HE members)

*Implement* or Adopt Spec-compliant tools and content

Provide feedback to vendors or IMS, thereby informing subsequent *evolution* efforts
Why Higher Education’s Opinion Counts

Silence allows other perspectives to dominate

Expertise
  Best Practice
Research
Expectations
  Vendors
New Learners
How IMS Listens to Needs

Who

Members
Experts
Practitioners (Users and Developers)

How

General Meetings
Special Interest Group Meetings
White papers and surveys
Online
Technical Advisory Board Organization

Diagram 1

Technical Advisory Board
- Chair(s)
- Editor
- Secretary

Requirements Committee
- Chair
- SIG

Development Committee
- Chair
- Project Group

SIG

Project Group
Specification Development

Input

Member(s)

End-users/customers
End user organizations
Other tech. consortia

Interoperability Requirement(s)

Requirements Committee

SIGs

Refinements of Draft Charters

Proposed Charter

Charter Approved

Charter Rejected

Proposed Documents

Release to Public Web Site

Work Plan

Development Committee

Project Group(s)

Technical Board

TB Editor

TB Secretary

Technical Board

Diagram 2

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Best Practice

Gathering Needs
Use a standard methodology
Use the parts that are appropriate for the participants and the stage of the specification development.

Communicating Needs
Use standard formats
Provide input to IMS and your vendors
Methodologies

Software Engineering

Rational Unified Process (RUP) – meta methodology accepted by the Object Management Group and an industry standard.

Use Case – Methodology for describing interactions between users and systems

Architecture: Charêtte – a rapid design process
Frequently-used terms

Usage Scenario – a narrative description describing a specific interaction between a real or fictional person(s) and system(s).

Use Case – a generalized version of one or more usage scenarios.

Behavior – an activity carried out by or on behalf of a user

Requirement – a constraint on a behavior addressing Function, Performance, Data, Capacity or Testing.

Function – action that occurs as part of a behavior

Types of Use Cases

Casual – narrative paragraph
Formal
  – Primary Actor
  – Scope
  – Level
  – Stakeholders and Interests
  – Precondition
  – Minimal Guarantee
  – Success Guarantee
  – Main Success Scenario
  – Extensions

Multiple Levels – High Summary, Summary, User Goal, Subfunction

Notational

Reference: Writing Effective Use Cases, Alistair Cockburn
Using Charêttes for Requirements Gathering

Best used in face to face meetings
  2-4 small groups per meeting
  6-8 people/group
Designated note taker and presenter per group
All groups work on the same problem
Limited time – e.g. 20-30 minutes
Each group presents
  Usage scenario
  Behaviors (at a user goal level of detail)
  Key requirements
Combine results and use with other design methodologies in additional facilitated meetings.
General Example

Usage Scenario – John bought a red car from Car World.

Casual Use Case – a person buys an automobile from a dealer.

Behaviors – person buys car; dealer sells car

Requirement – the color of the car is red

Function – buy; sell
Technology Example

Usage Scenario – Jane wrote her English paper during her vacation away from school on her laptop and submitted it online on time for her English 101 course.

Casual Use Case – student writes assignment and submits it online

Behaviors – student uploads assignment; student submits assignment; system stores assignment

Requirement – stored assignments include the identity of the user who submitted it, time it was submitted, and the course identifier.

Function – upload, submit, store
Recommended Process

1. Use Charêttes to generate usage scenarios capturing different perspectives on a problem.
2. Group scenarios
3. Create casual use cases at a user level of detail
4. Create formal use cases (may require facilitator or hand off to use case specialist)
5. Identify Behaviors
6. Identify Requirements (may require facilitation)
7. Hand off for refinement and expression in more technical forms
Complexity of Artifacts

Complexity

Facilitation

Additional RUP Artifacts

Requirements

Behaviors

Use Cases

Usage Scenarios

Normal People

Geeks
The Role of Educause/NLII

Voting member

Suggestions
- Facilitation
  - March 7 – NLII meeting
- Education – White paper
- Translation – creating formal use cases

Other Ideas?