



Activity: Integrated Learning Environments and 21st Century Learning

This paper provides a description and project plan for the *Integrated Learning Environments and 21st Century Learning* within the *Technical Standards for Digital Education* project.

This document is a work in progress: it will be updated in collaboration with the focus group for this activity.

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1. Activity summary

Standards and infrastructure such as SIF and Common Cartridge are now available to allow teachers and administrators access to data and curriculum materials, across multiple school sector systems. Standards and infrastructure is also now available that allows functionality in one learning environment to be integrated into another learning environment, such as Web 2.0. Promoting greater consistency in standards, and frameworks for exchanging data between sectors as well as individual systems, will enable greater efficiencies and more synergies. This will improve the learning experience for students as well as the management of schools and learning.

This activity has two components:

1. support the SIF-AU project,
2. articulate Web 2.0 and service-oriented approached to integrating learning environments.

2. Expected outcomes

There are two related components to this activity. SIF-AU support addresses the specific requirements of the SIF-AU initiative, and involves the project team supporting SIF-AU.

The Integrated Learning Environment component is broadly targeted at integration of learning systems through Web 2.0, and will involve the project team working closely with a focus group.

Support SIF-AU

The technical standards project team will support SIF-AU's work in making school systems more interoperable, both within and between jurisdictions. The SIF-AU project is being led by a project team in the Victorian Department of Education and Early Childhood Development with extensive involvement from government and non-government schools authorities. The technical standards project team will provide advice as requested by the SIF-AU Data Standards Working Group.

Priorities for Integrated Learning Environments

From the beginning of 2010, this activity will work to establish the current priorities and requirements for learning systems integration through Web 2.0 technologies, to complement the integration work being done by SIF. This work will involve forming a focus group for the activity.

Standards for Integrated Learning Environments

This activity will gather recommended practice on how to integrate learning content delivery and student data across different jurisdictions and systems. The activity will highlight the range of large-scale synergies now possible for schools, e.g. in the integration of administrative and learning management systems. This activity will draw on the general work of the W3C for web-based integration of systems in the browser experience, as well as the more targeted work of IMS, oriented to assessment in particular. The project team will feed the Australian school sector requirements and priorities into IMS standards development.

3. Deliverables and timeframes

Deliverable	Due date
Component One	
Feedback to SIF-AU data working group	Mar 2009, Sep 2009 and then as needed
Component Two	
Priorities for systems integration	Mar 2010
Guidelines for systems interoperability	May 2010
Overall	
Progress report	Dec 2009
Closure report	Jun 2010

4. Methodology

Component One

- Support data modelling work in SIF-AU on ongoing basis, as requested by the Data Standards Working Group
- Other support and advice as requested

Component Two

- Write progress report, capturing key findings
- Establish sector requirements and priorities through focus group and key stakeholders.
- Analyse available standards on Web 2.0 interoperability in general (W3C)
- Analyse emerging practice on learning tools interoperability (IMS)
- Provide input and feedback for standards activities discovery (IMS), representing Australian requirements and informed by sector consultation
- Write guidelines on how best to realise learning content interoperability in Australian school sector
- Circulate findings on learning and administrative systems interoperability
- Write closure report

Sector consultation plan

- Establish focus group through sector contacts, with at least three meetings, including one face-to-face. Focus group to stay in communication through EDNA Groups.
- Approval of nominees for focus group.
- Circulate background brief to focus group and key stakeholders. Integrate feedback.
- Ongoing consultation on requirements and current developments in integrated learning environments.

5. Related standards activities

Standards activity	Expected interaction
W3C Web Applications working group	Collect intelligence on emerging standards for web 2.0 service-oriented approaches to system integration
IMS Learning Tools Interoperability	Collect intelligence on emerging standards for web 2.0 service-oriented approaches to system integration in e-learning
IMS Common Cartridge	Collect intelligence on emerging standards in packaging and distribution of learning content for allowing content to integrate with online tools, particularly in assessment.

6. Related projects

Project name/contact details	Expected interaction
SIF-AU Initiative, Bruce Rigby, Department of Education and Early Childhood Development, Victoria	Providing standards advice and best practice recommendations to SIF-AU Data Standards Working Group as requested

7. Communication and dissemination plan

It is critical for Component Two of this activity to achieve its goals that the information it gathers and produces is disseminated effectively to the appropriate audiences. The focus group will define the communication strategies it will employ, taking advantage of existing channels relevant to each member's organisation and jurisdiction. Communication to the sector generally may take advantage of wider dissemination methods such as web site postings, blog posts and sector-wide mailing lists and events.

8. Further information

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- Peter Albion (University of Southern Queensland)
- Garry Compton (DEEWR)
- Greg Curtis (Dept of Education, Tasmania)
- Jeffrey Gunn (Catholic Education Office, Melbourne)
- Geoff Hendrick (Education.au)
- Alan Herbert (DET NSW)
- Dan Ingvarson (SIF-AU)
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The Technical Standards for Digital Education project is funded by the Australian Government's Department of Education, Employment and Workplace Relations (DEEWR)