



schools online curriculum content initiative

THE EXCHANGE

Progress Report to TLF ECC

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1 Executive Summary

This report contains details of progress by The Le@rning Federation in the development of the Exchange and associated systems during the months July to October 2002.

The development of the Exchange has progressed with the acceptance of Release 2 expected by 30 October 2002. This release provides additional functionality for the quality assurance of content.

Consultation with education systems to discuss implementation issues has continued, with major issues being identified as; alignment with the Exchange development schedule, how to receive content from the Exchange, and how to deliver content to teachers and students. These issues are being addressed as part of the ongoing consultation process.

Consultation with a number of e-learning system vendors has been undertaken with a view to informing vendors of relevant TLF activities, and judging where this market is heading. A number of vendors are implementing the same, or similar, specifications as The Le@rning Federation, though implementation of common specifications has a significant lead-time for some vendors.

Significant work on interoperability specifications has taken place. Details of progress are provided in the Interoperability Specifications Progress report.

Activities over the next 12 months include: enhancements to the Exchange, development of the Basic E-Learning Tool Set (BELTS), and the implementation of the initial release of digital rights management systems.

2 Introduction

This progress report details the achievements of The Le@rning Federation in developing the Exchange and associated systems over the period of July to October 2002.

3 Progress

Much of the work undertaken in the last quarter has been associated with the initial development of the Exchange. Initial preparation work has also been undertaken on the Basic E-Learning Tool Set. The following details the work that has been completed to date.

3.1 The Exchange

Release 2 of the Exchange is expected to be accepted by 30 October 2002. This release will add the following functionality:

- Quality Assurance testing management
- Enhanced search facilities.
- Enhanced interface to education systems.

The release is currently in final integration testing, and is running to schedule. A number of changes have been integrated into the interface design to reflect findings from the usability and accessibility reviews. The user interface has adopted a more 'wizard' style of interface that will enable novice users to be more productive. More experienced users will still have access to advanced navigation features so they can carry out specific tasks faster.

A number of changes are being made to the development process to ensure the quality of the developed system remains high, and to streamline the development process. This will also enable greater research into the possibility of integrating other existing products to delivery richer functionality sooner.

3.2 Hosting

The hosting arrangements with AR&I (formerly Luminis) for the Exchange have continued to be reliable. A number of enhancements were made to the power supplies to enhance reliability, especially with the addition of a backup generator.

A staging environment has been installed at Luminis to provide a testing environment for the Exchange. This environment has been used to test new releases of the Exchange, and new configurations of hardware and software. Improvements to reliability and performance were successfully trialled, and will be incorporated into the production environment for Release 2 of the Exchange.

3.3 Standards and Specifications

Significant work has been completed on the development of The Le@rning Federation specifications. These are detailed in the report titled "Interoperability Specifications – Progress Report".

3.4 Education System Consultation

The Le@rning Federation will assist education systems to understand the requirements for interfacing to the Exchange, and the options for delivering content to teachers and students. All state and territory education systems have been visited. The consultation process will continue to assist state and territory education systems and sectors to understand the infrastructure requirements to receive and manage learning objects as the project progresses.

The main issues identified from the education system visits are:

- **Development schedule** – when will the Exchange and the first package of content be delivered, and what is to be expected after this first delivery?

The schedule of Exchange development is described in Section 4. This provides a breakdown of the high-level functionality currently planned for delivery with each release.

- **Receiving content** – how will education systems interface to the Exchange and receive content?

This issue is currently being addressed through the consultation process with each of the education systems. The requirements for receiving content are addressed through TLF specifications, which can be downloaded from The Le@rning Federation web site (www.thelearningfederation.edu.au). Specific implementation details will be discussed as part of the consultation process. Details of progress are contained in the Interoperability Specification Progress Report.

- **Delivery to teachers and students** – what is required to deliver content to teachers and students? What will BELTS provide?

Delivery to teachers and students is a complex issue, and is likely to be handled differently by each education system. In consultation with the states and territories, The Le@rning Federation is developing a range of delivery options to facilitate discussion of the issues that must be addressed when considering the most appropriate solution for each education system.

It should be noted that content for the first science project will be completed in November 2002. This will enable education systems to test the content and ensure development of plans for distribution and professional development are progressed.

3.5 Vendor Consultation

The Le@rning Federation have engaged in consultation with a number of vendors of e-learning systems. The purpose of the consultation is to discuss the strategic directions of The Le@rning Federation, and how that fits with the directions of each of the vendors.

The following vendors have been consulted since July 2002:

- Blackboard,
- WebCT,
- Janison,
- Microsoft,
- etech group
- myInternet, and
- Impaq.
- Start-e-Learning (ExcelSoft)

Contact with each of these vendors will be maintained over the life of the initiative. There are a number of other vendors that The Le@rning Federation will also be consulting with in the future to address related issues.

Although all the vendors consulted claim conformance to IMS, the consistency of their implementations varies considerably. It was noted that much of the conformance is in relation to importing content packaged in the IMS format. There is little conformance in the exporting of content in an IMS format; hence interoperability is only in one direction. This could restrict the reuse of content that has been developed in a particular system from being used across a range of systems.

4 Future Activities

The developments planned for the next 12 months are presented to give an indication of what education systems could expect to see delivered.

4.1 The Exchange

4.1.1 Release 2

Release 2 is scheduled for delivery 31 October 2002. Integration testing of the release is currently being completed and will be delivered for user acceptance testing on 15 October.

This release will add the following functionality:

- Quality Assurance testing management
- Enhanced search facilities.
- Enhanced interface to education systems.

4.1.2 Release 3

Release 3 is scheduled for delivery 20 December 2002. This release will add the following functionality:

- Enhanced QA workflow functionality
- Subscription to content release notification.

4.1.3 Release 4

Release 3 is scheduled for delivery 31 March 2003. This release will add the following functionality:

- Enhanced QA workflow functionality

4.1.4 Release 5

Release 5 is scheduled for delivery 30 June 2003. This release will add the following functionality:

- Digital Rights Management subsystem.

4.2 Basic E-Learning Tool Set (BELTS)

The Le@rning Federation will develop a basic tool set to demonstrate how education systems can interface to the Exchange and utilise TLF content. BELTS will provide early access to the content on the Exchange. It is envisaged that the BELTS system will be offered as an “Open Source” project. This will enable education systems to enhance the basic features offered through the BELTS to suit their own needs.

The RFP for the Basic E-Learning Tool Set was released on 28 August 2002 to a select number of organisations that were known to have an existing base of software on which to develop BELTS. These organisations were:

- Jacus
- Cybersource
- myinternet
- Janison Solutions
- Dytech Solutions
- Harvest Road
- e-tech Group
- Intec
- CWA
- WebMCQ
- AR & I

The closing date for RFT responses was 4 September 2002. 6 responses were received and evaluated. Recommendations have been made to **education.au** management, and contractual negotiations are progressing.

It is expected that the first release of the repository and learning tool set will be delivered in December 2002.

4.3 Digital Rights Management

The management of intellectual property rights will be significantly progressed over the next 12 months. A detailed review of the requirements was undertaken, and is currently being documented in the DRM Business Requirements Specification. This document will be issued for comment in October. The Business Requirements Specification will address the specific requirements of TLF content delivery and use, and will propose a schedule for implementation for the remaining years the TLF initiative.

5 Conclusion

Significant progress has been made with the next release of the Exchange due on 30 October 2002. Involvement of education systems has continued, and will increase in the coming phases of the project as functionality for content distribution is realised. The Basic E-Learning Tool Set has progressed, with development to begin in the near future. System vendors are aware of, and are broadly aligned with, the specifications of The Le@rning Federation.