



THE  
**le@rning**  
FEDERATION

schools online curriculum content initiative

The Le@rning Federation  
Phase Three Plan  
2006 – 2008

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## **TABLE OF CONTENTS**

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>BACKGROUND .....</b>	<b>3</b>
<b>MISSION .....</b>	<b>6</b>
<b>ONLINE CURRICULUM CONTENT.....</b>	<b>9</b>
<b>INTELLECTUAL PROPERTY MANAGEMENT .....</b>	<b>14</b>
<b>QUALITY ASSURANCE .....</b>	<b>15</b>
<b>DELIVERABLES .....</b>	<b>16</b>
<b>CRITICAL SUCCESS FACTORS .....</b>	<b>19</b>
<b>TECHNICAL SYSTEMS.....</b>	<b>20</b>
<b>RESEARCH .....</b>	<b>22</b>
<b>NETWORKS AND RELATIONSHIPS.....</b>	<b>24</b>
<b>RISK ANALYSIS AND MANAGEMENT STRATEGY .....</b>	<b>26</b>
<b>BUDGET AND FUNDS ADMINISTRATION .....</b>	<b>31</b>
<b>GOVERNANCE .....</b>	<b>34</b>
<b>DEFINITION OF TERMS .....</b>	<b>40</b>
<b>REFERENCES.....</b>	<b>43</b>

## 1. Executive Summary

The Le@rning Federation Initiative is an initiative by all education Ministers in Australia and New Zealand to collaborate in developing online curriculum content and delivering it electronically.

Between 2001 and 2006, it produced extensive online content in a range of priority curriculum areas through partnerships with multimedia developers and cultural organisations. This content, which is hosted in a sophisticated content repository, is highly valued by teachers.

The Le@rning Federation has focused attention on broader policy issues of technical interoperability, intellectual property sharing, digital copyright, bandwidth provision for schools and the importance of implementing Information and Communication Technologies (ICT) across all education sectors to support the growing innovations, enterprise and knowledge economy priorities.

In May 2005, MCEETYA endorsed a proposal to further invest in The Le@rning Federation for 2006–2008 with a specific set of targets. These include a further 4 000 items of online content; framework, standards and structure for the sharing of online curriculum and to enable sharing and peer-reviewing of content developed by teachers; arrangements with vendors to support distribution and use of content; and support for a local education digital content industry.

The creation of a sustainable Le@rning Federation is a fundamental challenge for the next triennium. The Le@rning Federation will work with jurisdictions towards sustained development and sharing of content through national policy agreements on intellectual property sharing and maintenance of agreed interoperability standards. Sustained access to a range of high quality content will be achieved by broadening content procurement models and development of infrastructure to support jurisdictions' increasing access to a range of online content, in addition to that of the Le@rning Federation.

A broader range of content procurement models will include tapping into and improving extant content from national and international public and private assets and working with jurisdictions to build capacity of teachers to effectively use, propagate and contribute online content to the pool.

The content will reflect, respect and celebrate the diversity of Australian and New Zealand communities, including remote and isolated, Indigenous and ethnically-based, in order to support the education of their children. Specific work will be undertaken with Indigenous communities to ensure content suits their needs.

National agreements will be brokered with all jurisdictions around curriculum priority areas and content focus, instructional design and pedagogy, intellectual property and sharing, policies for equitable development, interoperability standards and national supportive infrastructure.

Close consultation with the MCEETYA ICT in Schools, Performance Management and the Resourcing Taskforces will ensure coordination and consistency in collaborative effort around key MCEETYA priorities of ICT, nationally consistent curriculum and assessment.

A measure of consistency in intellectual property regimes for online curriculum content across Australia and New Zealand is a high priority. Without this, content cannot be shared or exchanged. All online content accessed from The Le@rning Federation's content repository will be developed and licensed to ensure that it is exempt from any copyright collection fees.

Research into use of content in classrooms, its impact on student achievement and the impact of new technical devices on student learning and content development will be undertaken in collaboration with jurisdictions and, where appropriate, with international research bodies.

Expanding networks and relationships with teachers, through online communities of practice, and with VTE and Higher Education, international research contacts and Higher Education teacher education faculties will further support and strengthen the Initiative.

AESOC has agreed that the management of the Initiative will be the responsibility of Curriculum Corporation with operational oversight and monitoring of deliverables by Curriculum Corporation Board. An AESOC Le@rning Federation Policy Sub-group will deal with policy coordination and facilitate links to the broader MCEETYA agenda.

The Le@rning Federation has helped position Australia and New Zealand as leading nations in the use of information and communication technologies in schools. Maintenance of this position is a driver for future collaboration in Phase Three.

## 2. Background

### 2.1. Antecedents

The Le@rning Federation Initiative is a result of agreements by all education Ministers in Australia and New Zealand in the period 2000–2001 to collaborate in developing online curriculum content for all Australian and New Zealand schools and delivering it electronically to jurisdictions.

The content was a 'kick-start' initiative to move schools into an electronic era and one component of a collaborative strategy involving infrastructure, capacity building, content and policy. To support this strategy, the MCEETYA ICT in Schools Taskforce developed *Learning in an Online World* and associated documents.

At the same time, *Backing Australia's Ability – An Innovation Action Plan for the Future (2001)* was released by the Australian Government, supporting online curriculum content.

In May 2005 MCEETYA endorsed a proposal to invest in The Le@rning Federation in 2006–2008 with a specific set of targets.

### 2.2. Achievements of Phase Two

Phase Two of The Le@rning Federation (2001–2006) produced an extensive pool of online content in the agreed priority curriculum areas of innovation, enterprise and creativity; languages other than English; literacy for students at risk; numeracy and mathematics; science; and studies of Australia.

Efficient curriculum area reference groups and expert focus groups engaged the profession in the challenge of creating content combining subject rigour with a capacity for creativity and critical thinking. Pedagogical approaches were based on rigorous classroom-based research into how students best learn the knowledge, concepts and skills required to achieve the intended learning outcomes.

Schools in the government and non-government sectors in Australia and New Zealand now have access to The Le@rning Federation content and responses from selected classroom trials are very positive.

Productive partnerships with cultural and public organisations have enabled schools' online access to key resources not previously available for education purposes and have facilitated further digitisation of public assets and development of online repositories that will become increasingly available to schools.

A sophisticated content repository facilitates online content development processes and enables content to be distributed to jurisdictions; a basic e-learning toolset enables jurisdictions to provide schools access to content for trialling and testing; and intellectual property rights are managed digitally.

The Le@rning Federation has supported a marketplace for the development of high quality public and private online curriculum content through partnerships with Australian and New Zealand multimedia and system developers. The online content and infrastructure has been developed within a standards-based framework reflecting international standards and requirements of the Australian education sector.

The Le@rning Federation has focused the attention of all Australian and New Zealand governments on the broader issues of technical interoperability, intellectual property sharing, digital copyright, bandwidth provision for schools and the

importance of implementing Information and Communication Technologies (ICT) across all education sectors to support the growing innovations, enterprise and knowledge economy priorities.

The scale of The Le@rning Federation, the number of areas in which it required and achieved agreement, the extent of research and development required, along with a number of its delivered products, has broken new ground and makes the Initiative unique and significant.

### 2.3. Evaluation Reports

Targeted studies have been regularly commissioned by the AESOC Le@rning Federation Steering Group throughout the Initiative.

TFG International<sup>1</sup> evaluated the work of the Le@rning Federation against its original terms of reference and concluded that it was on track to meet the goals and objectives set by Ministers in 2001. The evaluation found the online content was highly valued by jurisdictions and the broader education community and that there were lessons to be learned from the complex processes employed to ensure ten separate governments collaborated and achieved mutually satisfying outcomes.

Professor Peter Freebody (University of Queensland) evaluated The Le@rning Federation's learning objects in schools<sup>2</sup> and found strongly positive responses from teachers and students with respect to their perceived benefits to both learning outcomes and engagement in learning.

Greg Flavel<sup>3</sup> (Convergent Consulting, Sydney), evaluated the impact of the Initiative on the multimedia and system developer market and found it had created a solid and robust market framework that clearly defined, to both supplier and user communities, the expectations for the development of quality online curriculum resources. The evaluation identified the setting of technical standards and frameworks; instructional design standards and methodologies specifying developmental and quality assurance procedures; and the establishment of a systems environment as critical success factors.

### 2.4. Next Steps

The MCEETYA content goal expresses a vision of students equipped to embrace and excel in the new economy. There is still much collaborative work to be accomplished to further improve current and future online content, to expand access to global content repositories, build broader national and international partnerships and support teachers to incorporate online content into their practice.

The Le@rning Federation has helped position Australia and New Zealand as leading nations in the use of information and communication technologies in schools. The maintenance of this position is a driver for future collaboration in Phase Three. The pool of content and supportive infrastructure will serve as a focal point for participating jurisdictions to continue to act collaboratively to implement information

<sup>1</sup> TFG International, *Evaluation 2001–2004 of The Le@rning Federation against its original terms of reference, Interim Report*, October 2005

<sup>2</sup> Professor Peter Freebody *Early-stage use of The Le@rning Federation's learning objects in schools*, January 2006 & Professor Peter Freebody *Does the use of online curriculum content enhance motivation, engagement and learning? The Learning Federation trial review*, 2005.

<sup>3</sup> Convergent Consulting *Phase One Review of The Le@rning Federation Market Linkages*, September 2003

and communication technologies and to push local change well beyond what is possible when working alone.

## 3. Mission

### 3.1. Goal

Phase Three has as its goal to build on the success of the last five years to procure a sustainable supply of world class online curriculum content to enhance all Australian and New Zealand students' learning outcomes and to support an enterprising, knowledge generating society.

### 3.2. Targets

Ministers set the following targets for their Investment Agreement:

- A further 4 000 items of high quality, globally recognised, online curriculum content for all Australian and New Zealand schools
- A workable framework, standards and structure for the sharing of online curriculum content between jurisdictions within Australia and New Zealand and with other countries
- An interoperable framework to enable sharing and peer-reviewing of teacher-initiated online resources
- Brokered arrangements with vendors to support distribution and use of online curriculum content in schools
- Consolidated schooling sector support for a local education digital content industry

### 3.3. Values

Some fundamental values underpin the plan:

- the value of learners constructing knowledge, being active in the learning process and building on prior learning
- the extension of opportunities for all students to develop to their fullest individual potential through new pathways for learning afforded by digital content
- education as a foundation for citizenship, public life and active, productive participation in our democracy and community, with an imperative of developing habits, skills and understanding for such active participation
- creativity, initiative and enquiry at all stages of life for all members of the community
- schools as communities of learners in which children work with adults and each other, within, between and beyond schools, in the richest and most stimulating environment possible to become intelligent, responsible and competent members of society
- the development of cultural understanding, common experience and the innovative potential of difference across our diverse communities through a significant body of high quality Australian and New Zealand materials available to all children
- the diversity of students as a foundation of a productive, creative and democratic society for the twenty-first century

- a common body of materials that can be applied in flexible ways within different jurisdictions, supporting distributed access and drawing on the strengths of each system
- the collaboration that is fundamental to Australia's Federation, and
- the capacities of information technology to help us better achieve our goals.

### **3.4. Sustainability**

The creation of a sustainable Le@rning Federation is a fundamental challenge for the next triennium. The Le@rning Federation will work with jurisdictions towards sustained development and sharing of content through national policy agreements on intellectual property sharing and maintenance of agreed interoperability standards.

Sustained access to a range of high quality content will be achieved by a broadening of content procurement models, and development of infrastructure to support jurisdiction's increasing access to a range of online content, in addition to that of the Le@rning Federation.

### **3.5. User Group**

The continuing focus of this Initiative is online content that contributes to enhanced educational outcomes for school-aged students. The projected users of the content are students, teachers, parents and carers. Particular attention will be paid in 2006–2008 to use by communities, especially in rural, remote and Indigenous settings.

### **3.6. Responsibilities**

The Le@rning Federation, as a collaborative community, is composed of various groups, each with unique responsibilities for the project. These responsibilities can be summarised as:

#### **MCEETYA**

- Commissioning the work within the framework of an Investment Agreement

#### **AESOC**

- Strategic linkage of the Initiative with the MCEETYA agenda, especially through Taskforce and working party activity
- Consideration of policy requirements
- Assignment of responsibility for management
- Endorsement of plans and agreements

#### **School education jurisdictions**

- Advice and expertise
- Incorporation of content into systemic teaching and learning initiatives
- Providing schools and communities with access to, and support in using, the content
- Research and feedback to improve online content procurement and use
- Timely provision of agreed funding

### Curriculum Corporation

- Provision of commissioned product in a collaborative environment to agreed standards
- Coordination and brokerage
- Intellectual property management
- Leadership in research, development, standards and specifications, directions and trends
- Identification of policy issues
- Operational management

## 3.7. Market development

The Le@rning Federation has contributed a sound framework for market development through its technical standards, instructional design methodologies and quality assurance procedures. It will continue to build on developed industry relationships and provide a point of presence for industry in relation to schooling sector content and information system decisions.

It is important to consolidate these gains and nurture these relationships to sustain continuity of quality Australian and New Zealand content for schools, support for the growing educational export industry and support for a local multi-media and IT systems industry that understands the needs of the education sector.

Arrangements will continue to be brokered with local and international software and hardware vendors and content providers to support the distribution of online curriculum content in Australian and New Zealand schools and move toward a more sustainable market. The demand for industry forums will be assessed as one strategy for achieving this objective.

An expansion of market development in the dialogue and negotiations with Australian cultural institutions and other public organisations for the production of educationally relevant digital assets and development of local content repositories will support schools' access to ongoing quality content provision. Approaches from overseas jurisdictions to licence Le@rning Federation content will be examined carefully for opportunities to improve the pool of content for Australian and New Zealand schools.

The following principles for determining international engagement endorsed by the AESOC Le@rning Federation Steering Group will guide decision making:

- efficiency and cost effectiveness
- public good
- sustainability
- benefits for the education sector and the educational software development industry in Australia and New Zealand
- potential for additional content of equivalent educational value and quality to be cost effectively exchanged, produced or purchased
- opportunity offers international benchmarking of TLF content via collaborative research programs focused on:
  - exchange of expertise in the design and development of quality learning content supporting continuous improvement in the quality of content produced
  - expertise in the delivery and teacher use of quality learning content that can be traded (bought, sold, exchanged) supporting implementation in Australian schools.

## 4. Online Curriculum Content

### 4.1. Scope

Only the most pressing priority topics and year levels have been covered by content procured between 2001 and 2006. The TFG evaluation found widespread teacher support for development of additional learning objects to cover further objectives within the existing curriculum areas and additional curriculum areas and year levels.

As use of the content spreads, so will the demand for broader curriculum coverage, both within current curriculum priority areas and other areas yet undeveloped. This is especially true in the context of the newly developed nationally consistency Statements of Learning in English, mathematics, information and communication technology (ICT), civics and citizenship and science, as well as other areas of national focus such as values education.

Learning objects that have been scoped by Content Area Reference Groups in Phase Two will be developed at the commencement of Phase Three, followed by further learning objects, collaboratively determined and scoped by jurisdictions.

Gaps will be identified in the existing content across the curriculum areas and data on student achievement will be analysed to identify content and concepts where digital content could be developed to assist in improving student performance.

New technologies provide opportunities to develop educationally-sound assessment items to support individual progress and these will be developed to complement learning objects and digital resources. Input will be sought to ensure these developments are compatible with jurisdictional policies and strategies for assessment.

A broader range of content procurement models will be employed to widen curriculum coverage. This will include tapping into and improving extant content from many regional, state and territory, national and international cultural and other public and private assets, as well as working with jurisdictions to build the capacity of teachers to effectively use, propagate and contribute online content to the pool.

### 4.2. Content formats

There are currently two types of content formats both of which conform to The Le@rning Federation interoperability specifications.

#### 4.2.1. Learning objects

The field evaluations suggest that interactive multimedia objects with clear instructional design are highly valued by teachers and students and demand is likely to escalate in the next three years. Production of these materials will continue using, and further refining, existing content development and quality assurance processes. The value placed on learning objects will be reflected in budget allocations.

#### 4.2.2. Digital resources

Digitising resources of educational significance from cultural and public organisations, including moving and still images and sound files, and licensing them for teachers to create their teaching and learning activities, has proven to be a highly valued strategy and will continue.

In addition to learning objects and digital resources, content formats will increasingly expand to include such content as assessment items, data streams, collaborative tools and activities, and references to trusted websites through URLs. The distinction between the various content types will further blur as intelligence, such as instructional design, is increasingly adapted and used by teachers and education jurisdictions in development of online curriculum content. Whatever the content type, conformance to interoperability standards will be required to ensure online use and sharing.

### **4.3. Sources of content**

The AESOC commissioned paper on cost effectiveness concluded that there was merit in diversifying the content procurement model, which had necessarily focused on development of new content through tendering processes. New sources of content for Phase Three will include:

#### **4.3.1. Education jurisdictions**

Digital content developed by school education jurisdictions, the Vocational Education and Training and Higher Education sectors that is educationally and technically appropriate, will be sought for possible inclusion in the content pool.

#### **4.3.2. Teachers**

Mechanisms to support teacher-initiated content and peer review will be developed. This content could include learning sequences using existing online content, assessment tasks or possibly small interactive multimedia learning objects. The Le@rning Federation will work closely with jurisdictions to determine what constitutes feasible teacher-initiated content and the most appropriate models for content contribution and sharing on a national basis. Protocols to ensure the content: meets technical standards; is in a format that can be shared; and meets intellectual property requirements will be collaboratively explored, as will the peer review process.

#### **4.3.3. Private and public content producers**

Content across a range of curriculum areas, not limited to the agreed priority areas for development of new content, will be sought through licensing and exchanges from local and international public and private providers. It will be selected on the basis of its technical and pedagogical soundness and value for money.

#### **4.3.4. Cultural and community agencies**

Digital resources will continue to be developed in partnership with an increasingly broad range of national, state and regional cultural and public institutions for use by teachers and students in classrooms. Relationships between these local cultural and public institutions and education jurisdictions will be encouraged.

All content procured for the Le@rning Federation pool will be tested, and if necessary, adapted to comply with educational soundness and interoperability specifications to ensure it is high quality, complies with legislative requirements and is educationally sound.

## 4.4. Diversity

The following principles guide the development of content to ensure it meets diverse needs:

### 4.4.1. Flexible and adaptable

Content must be sufficiently flexible and adaptable to meet the needs of a very diverse range of students, including those with a range of physical and mental impairments. This will be built into content specifications as a requirement and will continue to be negotiated through the Curriculum Area Reference Groups, Contact Liaison Officers and Expert Advisory Groups.

### 4.4.2. Cater for diverse delivery environments

The delivery of content to jurisdictions must cater for diversity of technology and delivery environments. Further development and maintenance of interoperability standards will enable progress in this area. This work will continue to be negotiated through the Le@rning Federation Exchange Consultative Committee, the ICT in Schools Taskforce and AICTEC. These networks and relationships are the basis of continuing interoperability work.

### 4.4.3. Adaptable to jurisdiction needs

From time to time individual participating governments will have specific needs, for example, the need for content to be used in off-shore schooling commitments or content that can support cross-sectoral work. Contributing governments may benefit from adapting the outcomes, research findings and solutions developed by the Initiative to assist them in local ventures.

### 4.4.4. Reflects our community's diversity

The content will reflect, respect and celebrate the diversity of Australian and New Zealand communities, including remote and isolated, Indigenous and ethnically-based, in order to support the education of their children.

As a critical mass of content is rolled out, The Le@rning Federation will work in partnership with existing national and local programs that are providing materials and services for these communities, to trial the online content to ensure its suitability to adapt to local use and integrate with local interests and issues. Such partnerships will maximise coordination and effectiveness, avoid duplication of consultative processes and expenditure and support holistic service provision.

Reliable ongoing advice will be sought during the content development process from specialists in teaching a diverse range of students to help shape and test the content. In particular advice will be sought from experts in the fields of English as a Second Language (ESL), students with disabilities, the needs of students in rural and remote schools and Indigenous students.

The Le@rning Federation educational and technical specifications will continue to be upgraded to maximise accessibility and applicability of the online content for a diverse range of users.

## 4.5. Needs of Indigenous communities

A principal business strategy of the Ministers is to integrate online curriculum content adaptation and use into the repertoire of communities whose educational outcomes are below the national average.

The experiences and cultural backgrounds of Indigenous students are diverse, but there are also commonalities of need. Low levels of literacy and numeracy skills are widespread amongst Indigenous students from both Australia and New Zealand. For many remote Australian Indigenous students, Standard Australian English is a second language or a second dialect. For these students, materials supporting beginning English language skills are needed.

Often materials developed for widespread application can lose impact if the context presented is foreign to the cultural experiences of students in unique, often remote, locations. The Le@rning Federation will work with Indigenous communities to develop materials that offer the capacity for local modification, especially with regard to language and images. Materials will also be developed that cater for age appropriate interests whilst accessible to students whose first language is not English. The Le@rning Federation will form an appropriately qualified reference group to provide advice relating to Indigenous education issues.

In its work for Indigenous communities, The Le@rning Federation will collaborate with other initiatives such as the Australian Government's Backing Indigenous Ability program.

## 4.6. Consultation

Collaboration is a significant overhead for the Initiative, yet at the same time it is a significant strength. Ongoing consultation ensures content that can be used in all jurisdictions. Intensive national collaboration in Phase Two enabled achievement of agreements and products that could not have been achieved by jurisdictions working independently. The initiative required jurisdictions to move towards national solutions and challenge traditional pedagogical assumptions and delivery methods.

The Le@rning Federation will continue to broker national agreements with jurisdictions around curriculum priority areas and content focus, instructional design and pedagogy, intellectual property and sharing, policies for equitable development, interoperability standards and national supportive infrastructure. In doing so, it will attempt to strike a balance between national consistency and regional difference and between rigorous and efficient processes and the opportunity for ongoing innovation.

The Initiative will maintain and extend the foundations for consultation and sharing established in Phase Two.

The principle of user-based development underpins the online content and requires strong involvement by jurisdictions at all levels of the development process. Representative Curriculum Area Reference Groups with representation from jurisdictions and Expert Focus Groups, made up of acknowledged experts in their field, will be used for determining the nature of specific curriculum areas and the scope of content within those, to assist the procurement process. This activity will be supplemented by convening a forum of curriculum experts from jurisdictions, when required, who will provide curriculum advice and feedback on emerging curriculum demands as online content, the work of the Performance Measurement and Reporting Taskforce and the National Curriculum Consistency Outcomes project come together.

The Exchange Consultative Committee will broaden its brief to provide advice on curriculum content and deployment as well as system development and interoperability. It will be renamed the Le@rning Federation Consultative Committee. Two members from each jurisdiction, one with ICT and curriculum expertise, the other with information systems expertise, will continue to provide advice.

Contact Liaison Officers, (CLOs) have been a crucial link between jurisdictions and the initiative. They will continue to be supported and encouraged to continue in their

current roles. The CLOs will determine their regular meeting arrangements once the membership of the Consultative Committee is established.

The number of focus group schools that are involved in the testing and trialling of the online curriculum content will be progressively expanded, in consultation with jurisdictions, to create a teaching community skilled in the use of online curriculum content. It is anticipated that this community of informed and active teachers could become involved in research and may progress with assistance from their jurisdiction to development of their own online content.

The Le@rning Federation will need to maintain close consultation with the MCEETYA ICT in Schools, Performance Management and the Resourcing Taskforces to ensure coordination and consistency in collaborative effort around ICT, nationally consistent curriculum, assessment, and intellectual property and copyright. This high level consultation will be vital for maximising the benefit of The Le@rning Federation and achieving lasting national agreements and solutions.

## 5. Intellectual Property Management

A measure of consistency in intellectual property regimes for online curriculum content across Australia and New Zealand is a high priority. Without this, content cannot be shared or exchanged.

All online content accessed from The Le@rning Federation's content repository will be developed and licensed to ensure that it is exempt from any copyright collection fees.

In Phase Two, jurisdictions vested ownership of the Initiative's intellectual property in the joint venture companies, Curriculum Corporation and **education.au limited**, to manage on their behalf. Shareholders have been licensed rights associated with the use and supply of materials and the rights of third party owners of intellectual property have also been carefully preserved. Curriculum Corporation will now be solely responsible for ensuring and maintaining the business arrangements and brokerage of the intellectual property licensing, sharing and trading. These will be managed through the digital rights management system. Curriculum Corporation will formally advise licensees of the assignment of rights in the existing licences from the joint venture companies jointly to the Corporation solely, thereby maintaining the currency of the licences without the need for the execution of further documents.

Intellectual property rights and the licensing regime will continue to be an issue. The Le@rning Federation will continue to implement licensing approaches that leverage the highest value return for shareholders and, where possible, seek to simplify current arrangements to provide shareholders with access to content with the minimum possible usage restrictions. It will also seek to broaden agreements between jurisdictions to share intellectual property and thereby contain copyright costs.

Close collaboration with individual jurisdictions, the ICT in Schools Taskforce and the Copyright Advisory Group of the MCEETYA Resourcing Taskforce and the MCEETYA National Copyright Director will be maintained to ensure The Le@rning Federation's intellectual property management processes align with any broader agreements being negotiated between jurisdictions to share intellectual property.

AESOC will continue to determine all policies underpinning and relating to intellectual property within the Initiative.

## 6. Quality Assurance

The Le@rning Federation will continue to draw on international quality standards for project management, user-centred design of systems and products, software development, and deployment and delivery to ensure quality control.

The Quality Assurance Framework for Online Content Development agreed to by AESOC in Phase Two will continue to provide the basis for quality control. The main principles underlying the quality assurance processes are the active involvement of users, such as practising teachers and students; the collection of feedback from users at all stages of development; the use of multidisciplinary development teams to ensure both pedagogical and technical quality; and use of the most appropriate media for the content, taking into account the profiles of learners and access to technologies.

This Framework will continue to be improved through ongoing evaluation and feedback on product conformance to specifications and guidelines, improved understandings in instructional design and feedback from classroom use, which in turn provides further improvement of the specifications, guidelines and processes for subsequent product development.

### 6.1. Standards

The Le@rning Federation standards and specifications, developed in consultation with jurisdictions, ensure the quality of online learning content, support educational integrity, interoperability and accessibility and digital rights management.

The standards and specifications will be updated and maintained in accordance with the status of jurisdictions' school operating environments, legislation, software versions and international standards.

Ongoing development and maintenance of interoperable standards will continue to involve close liaison with international and national standards bodies and jurisdictions in the schools, VTE and higher education sectors.

Work will be undertaken throughout the course of the Initiative to 'refresh' content developed to ensure it continues to meet updated technical standards and can continue to be used by teachers. This will involve enhancing the functionality of the Exchange to support the internationally recognised Shareable Courseware Object Reference Model (SCORM) 2004 format.

## 7. Deliverables

Deliverables will be reviewed prior to the second and third years of funding taking into account the outcomes from ongoing collaboration with jurisdictions (see 4.6). Feedback will also be sought through online consultation via the Le@rning Federation website. The Curriculum Corporation Board will provide the updated deliverables for approval by the Australian Education System Officials.

### 7.1. 2006 – 07

#### 7.1.1. Content procurement

- Digital content procured in the curriculum areas of mathematics; science; literacy for students at risk; innovation, enterprise and creativity; LOTE and studies of Australia using design specifications already approved by Curriculum Area Reference Groups in Phase Two
- Digitised content available for use in schools developed through partnerships between The Le@rning Federation and cultural and other public organisations.
- Content exchanges and licensing agreements with national and international private and public sector digital content providers to broaden curriculum coverage of learning objects in the repository
- Digital assessment items
- Refresh of online content developed in 2002/03 to ensure it conforms to current software interoperability standards

#### 7.1.2. Infrastructure development and maintenance

- Maintenance of the content repository (Exchange), the digital rights management system (CRISP) and hosting and licensing contracts
- Maintenance and development of interoperability specifications
- Enhanced functionality of the Exchange to support the Shareable Courseware Object Reference Model (SCORM) 2004 format
- Web-based system for storing, sharing, discussing and peer-reviewing teacher-developed digital content

#### 7.1.3. Intellectual property and rights management

- Progress on national agreements for sharing of online content
- Intellectual property rights management tool for jurisdictions to manage digital rights for all their content

#### 7.1.4. Research

- Research report on schools' take-up and implementation of digital content and its impact on student learning outcomes
- Report on trials of The Le@rning Federation digital content with a range of Indigenous communities from a variety of settings

## **7.2. 2007 – 08**

### **7.2.1. Content procurement**

- Digital content in agreed curriculum areas
- Digitised content available for use in schools developed through cultural and other public organisations, with the assistance of TLF and distributed through the Exchange and other cultural repositories
- Identification, adaptation and licensing of suitable existing digital items owned by school sector jurisdictions, Vocational Education and Training and Higher Education for access by schools
- Content exchanges and licensing agreements with suitable national and international private and public sector content providers to broaden curriculum coverage of learning objects in the repository
- Content to assist teachers with assessment
- Refresh of online content developed in 2003–04 to ensure it conforms to current software interoperability standards
- Online resources for teachers and pre-service educators to support teacher take up of digital content in the classroom

### **7.2.2. Infrastructure development and maintenance**

- Maintenance of the content repository (Exchange), the digital rights management system (CRISP) and hosting and licensing contracts
- Maintenance and development of interoperability specifications
- Web-based system for storing, sharing, discussing and peer-reviewing teacher-developed digital content
- Capacity to store and distribute source code to facilitate the development of The Le@rning Federation derivative content by educational jurisdictions
- Trial of the Schools Online Content Thesaurus (ScOT) with private and public content vendors and education jurisdictions to improve management and retrieval of digital resources for the education sector
- Central registry and metadata repository to enable educational jurisdictions to provide discovery mechanisms to schools

### **7.2.3. Intellectual property and rights management**

- Progress on national agreements on intellectual property for sharing online content

### **7.2.4. Research**

- Research report on schools' take-up and implementation of digital content and its impact on student learning outcomes
- International Le@rning Federation symposium on the use of digital content in classrooms

## **7.3. 2008 – 09**

### **7.3.1. Content procurement**

- Digital content in agreed curriculum areas
- Digitised content available for use in schools developed through cultural and other public organisation, with the assistance of The Le@rning Federation and distributed through the Exchange and other cultural repositories
- Identification, adaptation and licensing of suitable existing digital items owned by school sector jurisdictions, the Vocational Education and Training and Higher Education sectors for access by schools
- Content exchanges and licensing agreements with suitable national and international private and public sector content providers to broaden curriculum coverage of learning objects in the repository
- Digital assessment items aligned to concepts and content in agreed priority areas
- Refresh of online content developed in 2004–05 to ensure it conforms to current software interoperability standards

### **7.3.2. Infrastructure development and maintenance**

- Maintenance of the content repository (Exchange), the digital rights management system (CRISP) and hosting and licensing contracts
- Centralised distribution mechanism for Le@rning Federation content
- ScOT browse tool distributed to jurisdictions and vendors to enhance discoverability of digital resources
- Enhanced central registry and metadata repository to enable educational jurisdictions to provide discovery mechanisms to schools
- Maintenance and development of interoperability specifications
- Enhanced web-based system for storing, sharing, discussing and peer-reviewing of teacher-developed digital content

### **7.3.3. Intellectual property and rights management**

- Report on operation of national agreements on intellectual property
- Online digital content guide to support Australian and New Zealand digital content industry

### **7.3.4. Research**

- Report on international field review to trial, share, exchange and co-develop digital content for schools
- Report on impact of technology devices on teaching and learning

## **8. Critical Success Factors**

The success of the Initiative's strategies as described in this plan will be illustrated by the following critical success factors:

### **8.1. Uptake by schools increased**

Successful uptake by schools is dependent on the delivery mechanisms employed by school jurisdictions. Content must be easy to use, find and access; enable and encourage reuse and contextualisation; and the infrastructure must be reliable with sufficient learning management systems or other e-learning tools to optimise content use by schools.

### **8.2. Content pool expanded**

Further high quality content must be procured in a range of formats, agreed content focus and stages of schooling and address the diverse needs of students. It should include both newly developed materials and extant content procured from a variety of sources including Australian and New Zealand cultural institutions and public agencies.

### **8.3. Content maintained and updated**

Systematic processes must ensure refreshment of content to ensure the benefits of the investment are not lost due to educational or technical obsolescence.

### **8.4. Sustainability assured**

Mechanisms must be established to ensure that a sustainable supply of online content for schools, a supported infrastructure and responsive interoperability standards regime continues.

### **8.5. Digital rights managed**

All intellectual property rights must be managed in a manner consistent with international best practice, respectful of the rights of owners whilst giving users the maximum possible flexibility.

### **8.6. Stakeholder commitment**

Stakeholder commitment to the processes, standards, specifications and execution of the Initiative in the content development and distribution processes remains crucial to its ongoing success. Teachers and education jurisdictions must value the contribution of online curriculum content to the achievement of student outcomes. Vendors must commit to supporting content distribution for jurisdictions.

## 9. Technical Systems

The technical systems developed in Phase Two, including the content repository (Exchange) that facilitates content development processes and content distribution to jurisdictions, and the digital rights management system (CRISP), will continue to be maintained and refined. These refinements will include enhancing the capacity to support sharing of derivatives, supporting materials and jurisdictional content.

Jurisdictions will be consulted about their requirements for a system for storing, sharing, discussing and peer-reviewing teacher-initiated digital content. Options for accessing content will also be explored with all jurisdictions.

The Schools Online Thesaurus (ScOT) will continue to be maintained and incorporated into tools developed for education jurisdictions and system vendors to enhance discoverability of digital resources

As technical obsolescence is a pressing issue, ongoing maintenance of interoperability standards and progressive refreshment of the online content will ensure continued access to the content for all.

In developing and refining technical systems, account will be taken of the need to support varying technology and delivery environments across and within Australian and New Zealand education jurisdictions. Open source options will also be investigated. The Initiative will promote national dialogue to share best practice with learning architecture design and to encourage interoperable approaches. Ongoing support of jurisdictional deployment work will continue.

The Ministers' Online Curriculum Content Investment Agreement has as a key strategy to further develop capacity to share content and data across Australia, New Zealand and the rest of the world. Enabling teachers to access a range of quality-assured online content sources through jurisdiction gateways has been a long-term objective of their Le@rning Federation initiative.

Technology improvements since the commencement of Phase Two combined with the trend towards development of standards-based content repositories by content providers enable this objective to be achieved.

It is now possible for content developed by The Le@rning Federation, cultural agencies, commercial vendors, individual jurisdictions and teachers, and by a range of other national and international content providers to be made available through a single federated search service accessed by a teacher. The means to achieve this nationally will be the subject of further consultation and collaboration with educational jurisdictions. A possible model is shown in the diagram below.

The Le@rning Federation will closely monitor the Australian Government's strategy to develop an Australian Education Digital Network (AEDN). The potential exists for fast and inexpensive data transfer within this network. As a result, some jurisdictions may choose to take advantage of this network by modifying the way they wish to receive digital content from The Le@rning Federation. The Initiative will work closely with all jurisdictions to understand changing requirements, and will continue to design and build infrastructure to meet their needs and the objective of achieving a sustainable content sharing and distribution network.

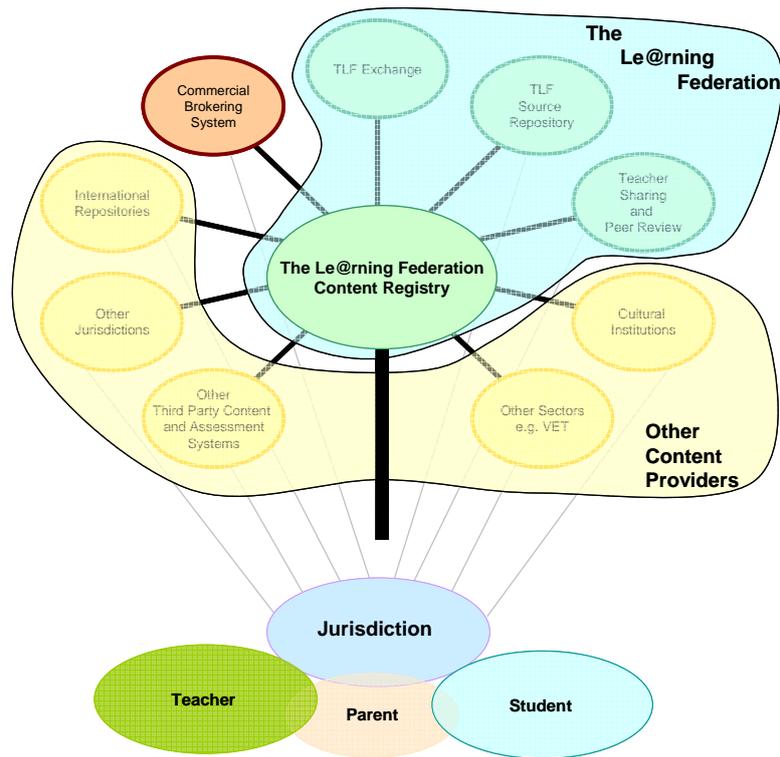


Diagram 1

Diagram 1 illustrates the concept of a central registry and metadata repository. This enables educational jurisdictions to provide discovery mechanisms for their teachers to enable them to access distributed digital content sources appropriate for their students.

Peter Freebody's research indicates that where the infrastructure and other environmental circumstances are favourable, uptake of online curriculum content by teachers is strong; absent these circumstances, uptake is markedly weaker. The Le@rning Federation will continue to work closely with jurisdictions to assist them to provide supportive infrastructure to deploy the content to schools. It will also encourage and support collaborative approaches to standardise delivery platforms.

## 10. Research

The design and deployment of online curriculum content relies on ongoing research to provide both qualitative and quantitative data, which can inform and improve further development. Research efforts will focus on the following broad areas:

### 10.1. Use of content in classrooms

Teachers are key to the implementation of digital content in schools, however even new teachers are not necessarily competent to use ICT and online content distribution and management systems are very uneven around the country. The Initiative will continue to work with jurisdictions on classroom content trialling. Suggestions and lessons from within classrooms and school systems will be captured through research and case studies and published and promoted. This research will inform advice for teachers and pre-service teachers on how to integrate online curriculum and assessment content in teaching and learning and will also provide valuable teacher and student feedback to guide further content procurement and improve quality standards.

A range of schools with significant numbers of Indigenous students were involved in Phase Two research on the use of online content. A preliminary research report and units of work were produced by the teachers from communities in Moree (NSW), Broome and Derby (WA), and Gippsland (Victoria). This research will inform future development of online content. Further research and trials will be undertaken with a range of Indigenous communities.

### 10.2. Impact on student achievement

There is little research, nationally or internationally, into the impact of digital curriculum content on student achievement as teachers and students are only just beginning to use it. The longitudinal research project commenced with Professor Peter Freebody (University of Queensland) will continue to research the aspects relating to the implementation and impact of the Le@rning Federation content in classrooms and education settings across Australia and New Zealand, including its impact on student achievement.

### 10.3. International research

Considerable interest has been expressed by education authorities in the United Kingdom, China, Hong Kong, Singapore, Thailand and Canada, where online curriculum content programs are underway or ready to commence.

The continuation of international collaboration and research, initiated in Phase Two, will enable monitoring of international trends, both technological and educational, and testing of the suitability of the Initiative's content for international use and export. It will also be instrumental in identification of potential sources of content for inclusion in the content pool.

Joint research efforts with agencies focusing on the use of ICT in education, such as the British Educational Communication and Technology Agency (BECTA), the National Endowment for Science, technology and the Arts (NESTA) Futurelab and the Stanford Research Institute, will link Australia and New Zealand with the international research community. Such international engagement will enable

economies of scale in research efforts and ensure local state-of-the-art development and deployment capacity.

#### **10.4. Impact of technology devices on teaching and learning**

Devices such as personal digital assistants (PDAs), iPods, electronic whiteboards, mobile phones and games consoles all have potential to influence the use and type of content produced by the Initiative. Ongoing research, in collaboration with jurisdictions, will investigate ways in which devices such as these are being used in classrooms. Results of this research will be widely disseminated and inform interoperability standards required to enable online curriculum content to operate on supportive devices.

#### **10.5. Sharing research findings**

The Initiative will share its research findings through both publication and public events to ensure all jurisdictions benefit from its research initiatives.

## 11. Networks and Relationships

The Le@rning Federation is a major collaborative achievement for all Ministers of Education. It has substantially progressed the online agenda for Australia and New Zealand. Achieving the level of coordination necessary for our students to be amongst the best in a global knowledge society continues to be a major challenge. Greater networks and relationships incorporating all players in the enterprise are required in Phase Three to support and strengthen the national effort.

### 11.1. Teacher communities of practice

Communities of practice around the use of content across Australia and New Zealand will be critical for future implementation. The problem of teacher preparedness has been raised in a number of reviews. Online communities of practice amongst teachers to engage with their peers about the appropriate use of learning objects will be explored with jurisdictions. A broad based professional network accessed by teachers from Australia, New Zealand and even globally, would potentially present a view of common problems and challenges faced by teachers in adapting to new technologies, and enable the sharing of effective solutions. The involvement of key professional bodies such as Teaching Australia, state teacher institutes and professional associations will be important for the success of this network.

### 11.2. International Collaboration

Australia and New Zealand are gaining recognition as world leaders in the development of digital curriculum content through investment in The Le@rning Federation. The Le@rning Federation will continue to work with agencies engaged in similar work to share expertise and knowledge. Already productive networks have been established with the Specialist Schools Trust, UK; the Kingswood Cluster, UK; Higher Education Publishing, China; University of Hong Kong; Singapore Ministry of Education; Thailand Ministry of Education; Learn Alberta, Canada; The University of Ontario Institute of Technology, Canada; the BBC and Channel 4 UK; and the Global Education Learning Community (Sun Microsystems).

An international symposium will be held in the 2007 to provide a forum for jurisdictions to discuss issues relating to implementation of online curriculum content in Australian and New Zealand schools and to share experiences with international colleagues.

### 11.3. VTE and Higher Education

This Initiative has acted as a stimulus and feeder for the vocational and Higher Education sectors that have been able to build on much of The Le@rning Federation's intellectual property and experience. Two-way learning between the sectors will increase over the next triennium due to online delivery gaining momentum as a critical component of VTE services, online content improving in the schooling sector and teacher capability emerging as critical to both. There is synergy in the issues and goals of the schools, VTE and Higher Education sectors in relation to intellectual property and standards, as well as an overlapping cohort for content use in the post-compulsory years. Although the three sectors have their own culture and requirements, maximising this synergy improves education, is cost-effective and

contributes to the information economy. Schooling and VTE sector assets rise in value if they are used to drive both sectors towards greater achievement. While direct links to Higher Education are more difficult to achieve, there are niche overlaps, the approach to online learning assets is cross-sectoral and synergies will be pursued.

#### **11.4. Teacher education**

Links to pre-service teacher education are critical. Many new teachers are entering the teaching force with little or no experience in using ICT in the classroom and online curriculum content. The Le@rning Federation has negotiated a licence for teacher educators to use the content with their students. Greater links will be made with teacher education agencies, and online resources will be developed for pre-service educators to support teacher take up of digital content in the classroom.

## **12. Risk Analysis and Management Strategy**

Phase Three is the continuation of a substantial change Initiative. It seeks to ensure Australian and New Zealand schools have a supply of online curriculum content to enhance students' learning. There is now a critical mass of content produced in Phase Two, however take-up is not yet widespread and teachers require assistance to integrate the content into their learning programs and to review their pedagogical approaches in light of the impact of new technology. The project requires ongoing collaboration and negotiation with ten governments. It requires infrastructure development as well as product development, along with the development of maintenance and sustainability strategies. It is, therefore, a complex management exercise with significant risk.

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## 12.1. Strategic risks

<i>Risk</i>	<i>Likelihood</i>	<i>Impact</i>	<i>Mitigation Strategies</i>
Educational jurisdictions are not sufficiently involved in the Initiative.	Low	High	<ul style="list-style-type: none"> <li>• Regular reports to MCEETYA ICT in School Taskforce, Curriculum Corporation Board, AESOC and MCEETYA</li> <li>• Involvement of jurisdictional officers in regular teleconferences, consultative groups and colloquia</li> <li>• Involvement of teachers and schools in the content development and classroom trialling of content</li> <li>• Regular face to face and online discussion forums on content, infrastructure and specifications</li> <li>• Research conducted in collaboration with jurisdictions and regular reports provided</li> <li>• All information about the Initiative publicly available through the Web site</li> <li>• Secretariat as intermediary to coordinate investment flows and Ministerially-owned project management</li> </ul>
Curriculum priorities change over time as governments and Ministers change or new national/international education trends emerge.	Medium	Medium	<ul style="list-style-type: none"> <li>• Monitor changes through AESOC, MCEETYA, MCEETYA ICT in Schools Taskforce</li> <li>• Monitor curriculum and assessment trends nationally and internationally</li> <li>• Consult regularly with jurisdictions</li> </ul>

## 12.2. Operational risks

<i>Risk</i>	<i>Likelihood</i>	<i>Impact</i>	<i>Mitigation Strategies</i>
Insufficient numbers of cultural and public organisations wish to collaborate with the education sector in digitising their assets.	Low	High	<ul style="list-style-type: none"> <li>• Testimonials from cultural and public institutions participating in Phase Two about the benefits to the host organisation to interest other agencies</li> <li>• Simple guidelines prepared describing processes and requirements of The Le@rning Federation to encourage involvement</li> <li>• Champions within the cultural community committed to digitisation of assets for national good</li> </ul>
Content is regarded by stakeholders as unsuitable for the schools sector.	Low	High	<ul style="list-style-type: none"> <li>• Curriculum personnel in jurisdictions consulted on content scope and emphasis</li> <li>• Educational specialists and subject matter experts part of development process</li> <li>• Assessment of relevance of possible items for inclusion by educational specialists before agreeing to work with organisation</li> <li>• Research into use of content by schools to identify characteristics of suitable material</li> <li>• Consultation with relevant communities, experts and educational jurisdictions about possibly sensitive material</li> <li>• TLF staff trained in identifying gender, cultural or other possible sources of insensitive or offensive content</li> </ul>
Insufficient affordable and high quality digital material available in order to achieve a sustainable model.	High	Medium	<ul style="list-style-type: none"> <li>• Broaden strategies to engage commercial market.</li> <li>• Exploit opportunities for content exchange through national and international arrangements.</li> </ul>
Teachers unable to develop suitable online content for sharing with other teachers.	Medium	Medium	<ul style="list-style-type: none"> <li>• Collaborate with jurisdictions to assist teachers to participate in development of online content</li> <li>• Online guidelines, tools and templates developed in collaboration with jurisdictions</li> <li>• Work closely with jurisdictions to determine what constitutes</li> </ul>

<b>Risk</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Mitigation Strategies</b>
			<p>feasible teacher-initiated content and appropriate models for content contribution and sharing.</p> <ul style="list-style-type: none"> <li>• Protocols developed to ensure content: meets technical standards; is in a format that can be shared; meets IP requirements; and can be peer-reviewed</li> </ul>
Key employees at the various software vendors move to other projects and are unavailable for ongoing maintenance work.	High	Medium	<ul style="list-style-type: none"> <li>• Ensure vendor documentation is up to date at the end of Phase Two</li> <li>• Ensure Phase Three Maintenance Agreements are in place</li> <li>• Agree on a block of maintenance hours to be applied to the system software so that the vendor ensures key people are available when required</li> </ul>
SCORM 2004 implementation requires a shift in the basis of the Technical Specifications.	Medium	Medium	<ul style="list-style-type: none"> <li>• Publish content items as SCORM assets rather than courses</li> <li>• Monitor the impact of developing in this way and offer this method as the starting point for full SCORM compliance in the future</li> </ul>
The digital rights management system is unable to be implemented by jurisdictions.	Medium	Medium	<ul style="list-style-type: none"> <li>• Establish parameters for the system in consultation with jurisdictions</li> <li>• Test system comprehensively for ease of use</li> <li>• Keep jurisdictions briefed on all developments with early advice on planned changes</li> <li>• Provide detailed documentation to systems</li> </ul>
Jurisdictions don't provide their contributory funds on time and Initiative faces cash flow issues.	Low	High	<ul style="list-style-type: none"> <li>• Invoices are submitted in a timely fashion</li> <li>• MCEETYA Secretariat implements strategy for timely funds administration</li> <li>• MCEETYA Secretariat follows up on payments</li> <li>• Some contingency carryover built into budget</li> </ul>
Failure to complete project on time as skilled staff can't be retained to project completion date.	Medium	High	<ul style="list-style-type: none"> <li>• Provide incentives to staff to stay on</li> <li>• Develop data base of available casual staff in case of emergency</li> </ul>

### 12.3. Market risks

<i>Risk</i>	<i>Likelihood</i>	<i>Impact</i>	<i>Mitigation Strategies</i>
Copyright is infringed by users and/or developers.	Low	High	<ul style="list-style-type: none"> <li>Processes for managing digital rights are continually monitored and improved</li> <li>Licensing regimes strictly maintained and enforced.</li> </ul>
Teachers cannot efficiently locate quality content through browsing and searching.	Low	High	<ul style="list-style-type: none"> <li>Work with teachers to understand the context in which they search, to produce better search results.</li> <li>Develop a rating system for materials that pushes user-recommended material high in a search result.</li> <li>Develop an index for contributors so that their rating increases proportionately to the popularity of the materials provided</li> <li>Develop a categorisation that deals with curriculum differences between jurisdictions to aid reuse of materials</li> </ul>

## 13. Budget and Funds Administration

### 13.1. Budget by components

Table 1 – Annual and total 3-year cost of specific activities (\$)

	2006–07	2007–08	2008–09	Total
<b>Content</b>				
Content Procurement and QA	\$12,708,354	\$13,480,779	\$13,650,045	\$39,839,178
User Support and Consultation	\$1,573,161	\$1,682,868	\$1,549,356	\$4,805,385
Research	\$846,030	\$846,030	\$929,482	\$2,621,542
<b>Sub total</b>	<b>\$15,127,545</b>	<b>\$16,009,677</b>	<b>\$16,128,883</b>	<b>\$47,266,105</b>
<b>Infrastructure</b>				
Infrastructure Development	\$1,747,708	\$1,227,831	\$1,008,625	\$3,884,164
Hosting and Maintenance	\$536,432	\$417,225	\$417,225	\$1,370,882
Digital Rights	\$679,480	\$536,432	\$536,432	\$1,752,344
<b>Sub total</b>	<b>\$2,963,620</b>	<b>\$2,081,488</b>	<b>\$1,962,282</b>	<b>\$7,007,390</b>
<b>Secretariat</b>				
<b>Sub total</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$1,200,000</b>
<b>TOTAL</b>	<b>\$18,491,165</b>	<b>\$18,491,165</b>	<b>\$18,491,165</b>	<b>\$55,473,495</b>

Table 1 is indicative and breaks forecast cost into key areas. The calculation is based on a total contribution of \$52 000 000 within Australia plus an additional proportion for New Zealand 2006–2008.

### 13.2. Budget assumptions

The three-year budget forecast for the initiative is \$55 473 495. Based on cost estimates derived from previous forecasts, a commitment of this amount would be sufficient to ensure a further 4 000 items of additional, quality-assured content are procured for the Australian and New Zealand school education sector over the next three years. In addition it would also finance:

- standard user support (including tutorials, exemplar content, sharing, online forums, FAQs, communities of practice)
- activities associated with broadened consultation with jurisdictions on items including agreement on curriculum priority areas, setting intellectual property

arrangements, establishing policies for equitable development and conducting industry development

- research and development activities
- modest system development to refine digital rights management and enable jurisdictions access to a range of content repositories
- maintenance of existing systems and services (basic maintenance and operations, continued hosting, licence renewal and the provision of technical information related to systems and services)
- the continued development and updating of standards
- costs associated with governance and administration.

### 13.3. Cost of Investment

The investment has been costed using similar arrangements to 2001–2005, but adjusting the formula in line with recent MCEETYA agreements. Costs therefore have been developed using the MCEETYA project formula (Table 2 below) rather than the ACER formula used in 2000–2005. New Zealand contributions are based on student numbers being 90 per cent of Victorian numbers and the proportion of content relevant to the New Zealand curriculum being 66 per cent of the whole. The proportion presented here for New Zealand is identical to the proportion required in Phase Two and will need to be re-negotiated and recalculated.

Table 2 MCEETYA Project Formula

<b>GOVERNMENT</b>	<b>PERCENTAGE</b>	<b>GOVERNMENT</b>	<b>PERCENTAGE</b>
<b>Australian</b>	50	<b>WA</b>	4.89
<b>NSW</b>	16.96	<b>Tas</b>	1.22
<b>Vic</b>	12.37	<b>NT</b>	0.51
<b>Qld</b>	9.33	<b>ACT</b>	0.83
<b>SA</b>	3.89		

Using the formula in Table 2 the cost of investment of each jurisdiction is outlined in Table 3.

**Table 3 Cost of Investment 2006–2008 (\$) (Draft)\***

<b>Cost of Investment 2006–2008 Compared to Current Costs</b>					
<b>Current Initiative</b>		<b>2006–2008</b>			
	<b>2005–2006</b>	<b>2006–2007</b>	<b>2007–2008</b>	<b>2008–2009</b>	<b>TOTAL</b>
Comm	7,700,000	8,666,667	8,666,667	8,666,667	26,000,000
NSW	2,625,700	2,939,733	2,939,734	2,939,733	8,818,200
VIC	1,958,880	2,144,134	2,144,133	2,144,133	6,432,400
QLD	1,333,640	1,617,200	1,617,200	1,617,200	4,851,600
SA	640,640	674,266	674,267	674,266	2,022,799
WA	729,960	847,600	847,600	847,600	2,542,800
TAS	206,360	211,466	211,467	211,467	634,400
NT	73,920	88,400	88,400	88,400	265,200
ACT	130,900	143,867	143,866	143,867	431,600
NZ*	1,252,833	1,157,832	1,157,832	1,157,832	3,473,496
<b>TOTAL</b>	<b>16,652,833</b>	<b>18,491,165</b>	<b>18,491,165</b>	<b>18,491,165</b>	<b>55,473,495</b>

\* Figure based on proportion required in 2001–2006. Final figure to be negotiated.

## 14. Governance

*The Le@rning Federation is an initiative of governments of Australia and New Zealand and governance structures for the 2006 – 2008 investment will use existing MCEETYA structures as determined by AESOC in its consideration of strategic priorities. Governance processes take into account the need for checks and balances, probity, value for money, public accountability and the building of capacity in the schooling sector.<sup>4</sup>*

The key elements of governance as they relate to Phase Three were agreed by AESOC at its meetings of August 2005 and March 2006 and are outlined below.

### 14.1. Key Elements

- Curriculum Corporation will manage the implementation of the Le@rning Federation Initiative with operational oversight and monitoring of deliverables by Curriculum Corporation Board
- Policy issues arising from, and of wider application than The Le@rning Federation, will be initially progressed through the MCEETYA ICT in Schools Taskforce.
- An AESOC Le@rning Federation Policy Sub-group made up of the Chairs of AESOC, the ICT in Schools Taskforce and Curriculum Corporation Board, a Commonwealth AESOC attendee and the AESOC nominee to the **education.au limited** Board will meet briefly before each AESOC meeting from July 2006 to June 2009 to elevate any policy issues related to the Initiative. The terms of reference for the AESOC Le@rning Federation Policy Sub-group will be to:
  - monitor the need or opportunity to accelerate any policy issues arising from The Le@rning Federation, particularly those which affect the achievement of The Le@rning Federation objectives
  - accelerate policy issues as required, through, for example, reference to MCEETYA taskforce/s or an existing working party, initiating a consultancy, development of a paper and AESOC discussion
  - provide a channel for AESOC to accelerate and ensure consistency in the broader MCEETYA agenda through Le@rning Federation activity
  - provide guidance or a 'fall back' position if the ICT in Schools Taskforce is not in a position to provide advice, and
  - audit delivery performance and management of conflicts of interest as required by AESOC.

The Policy Sub-Group will be supported by the TLF Secretariat, which will become part of the MCEETYA Secretariat. New Zealand will be given the opportunity to participate.

<sup>4</sup> Hickey, V, The Learning Federation: Governance Advice for 2006–2008, Luma Corporate Governance Consulting, Adelaide, October 2005

## 14.2. Assumptions

The following assumptions underpin the governance agreements.

- Governance can be usefully described in terms of the roles of AESOC (purchaser) and Curriculum Corporation (provider).
- AESOC's responsibilities for the most part will be executed through the existing MCEETYA support structures, that is, existing taskforces and working groups with their existing accountability mechanisms.
- The ICT in Schools Taskforce is the taskforce most likely to take up issues arising from The Le@rning Federation. As a representative body with Executive level expertise it is well placed to do this. The taskforce will decide which issues to progress to AESOC and will progress those issues collaboratively.
- In order to align with MCEETYA priorities (indigenous education, assessment, national curriculum consistency) and structures, The Le@rning Federation work will increasingly need to intersect with work of other MCEETYA taskforces and working parties (for example, the Working Party on Indigenous Education and the Performance Measurement and Reporting Taskforce). This intersection will be achieved through the usual practices of negotiation.

The AESOC Le@rning Federation Policy Sub-group is a small group to deal with any policy coordination, facilitate links to the broad MCEETYA agenda and monitor the interests of the purchasers. It is an efficiency mechanism for AESOC, similar to an audit committee.

The Le@rning Federation has always worked within existing MCEETYA structures for policy advice and has not set up its own policy level groups. This practice will continue.

The following explanatory tables provided the background for the AESOC decisions.

### 14.3 THE LE@RNING FEDERATION 2006–2008 SUMMARY OF ROLES

AGENCY	ROLE SUMMARY
<b>MCEETYA</b>	<ul style="list-style-type: none"> <li>• Commission, indicate intent, direction, targets</li> <li>• Invest</li> <li>• Receive annual reports of progress and return on investment</li> </ul>
<b>AESOC</b> *Indicates relationship and progress	<ul style="list-style-type: none"> <li>• Establish management and governance structure</li> <li>• Contract a trusted Project Manager*</li> <li>• Ensure maximum strategic benefit from Ministers' investment**</li> <li>• Reach agreement on policies and parameters**</li> <li>• Monitor and audit**</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• *Curriculum Corporation contracted as trusted Project Manager</li> <li>• **AESOC Le@rning Federation Policy Sub-group, assisted by part-time secretariat, to be the mechanism.</li> </ul>
<b>Curriculum Corporation</b>	<ul style="list-style-type: none"> <li>• Manage the Initiative on behalf of Ministers</li> <li>• Develop Phase Three Plan and deliver within collaborative boundaries</li> <li>• Deliver on time and within budget</li> <li>• Identify and seek AESOC direction on issues with implications beyond the Initiative</li> <li>• Report progress and issues to AESOC/MCEETYA</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Board of Curriculum Corporation, with membership of all jurisdiction CEOs will receive progress reports, expert reports as required, monitor against annual deliverables and sign-off three times a year between MCEETYA meetings.</li> <li>• Board will monitor conflict of interest issues for its members in line with company law.</li> </ul>
<b>MCEETYA Secretariat</b>	<ul style="list-style-type: none"> <li>• Collect funds in a timely way from states and territories on behalf of Ministerial Council</li> <li>• Make first payment to Curriculum Corporation each year in July/August on the basis of AESOC acceptance of the release schedule and firmed-up deliverables for the coming year.</li> <li>• Make three further payments to Curriculum Corporation on receipt of Curriculum Corporation sign-off of completion of deliverables and, where required, receipt of expert report.</li> <li>• Service the meetings of the AESOC Le@rning Federation Policy Sub-group and host part-time secretariat for AESOC. Service the meetings of the AESOC Le@rning Federation Policy Sub-group and host its part-time secretariat</li> </ul>

<b>14.4 COMPARISON OF GOVERNANCE RESPONSIBILITIES PHASE TWO AND PHASE THREE</b>		
<b>RESPONSIBLE FOR</b>	<b>2001–2006</b>	<b>2006–2008</b>
<b>Commissioning the work</b>	<p><b>MCEETYA</b></p> <ul style="list-style-type: none"> <li>Decision to invest, assigned oversight to AESOC with a secretariat and involvement of two ministerial companies</li> </ul>	<p><b>MCEETYA</b></p> <p>Decision to continue investment within agreed parameters</p>
<b>Determining structures</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>Established an AESOC sub-group, The Le@rning Federation Steering Group</li> <li>Endorsed delivery by joint venture of the two companies</li> </ul>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>Established an AESOC Le@rning Federation Policy Sub-group</li> <li>Endorsed delivery by Curriculum Corporation, including delivery oversight by Curriculum Corporation Board</li> </ul>
<b>Determining deliverables</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>Proposed high level deliverables signed off in Phase Two Plan in line with Ministers’ intent</li> <li>Annual sign-off of refined deliverables for the following year</li> <li>Annual noting of proposed release dates</li> </ul>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>Proposed high level deliverables signed off in Phase Three Plan in line with Ministers’ intent</li> <li>Beyond the first year, noting of deliverables for the following year and proposed release dates</li> </ul>
<b>Agreements, directions and processes</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>Initial agreements and processes developed from scratch by AESOC Steering Group using Secretariat and recorded in Phase Two Plan</li> <li>Agreements continuously negotiated by joint venture using agreed processes</li> <li>Alignment with MCEETYA intent through AESOC Le@rning Federation Steering Group</li> </ul>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>Phase Two extended with agreements and processes recorded in Phase Three Plan</li> <li>Agreements continuously negotiated by Curriculum Corporation using agreed processes</li> <li>Alignment with MCEETYA intent through AESOC Le@rning Federation Policy Sub-Group</li> </ul>
<b>Monitoring deliverables’ achievement</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>The AESOC Le@rning Federation Steering Group meets quarterly, and three times a year formally signs-off status report, which includes external expert advice</li> </ul>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>Curriculum Corporation Board meets quarterly, and three times a year signs-off status report, which includes external expert reports as required</li> <li>COO reports to CEO Curriculum Corporation, and</li> </ul>

<b>14.4 COMPARISON OF GOVERNANCE RESPONSIBILITIES PHASE TWO AND PHASE THREE</b>		
<b>RESPONSIBLE FOR</b>	<b>2001–2006</b>	<b>2006–2008</b>
	<ul style="list-style-type: none"> <li>• COO reports to CEOs of both companies and liaises with Manager ICT in Schools Taskforce</li> <li>• Each company board monitors company performance</li> <li>• Director, Secretariat meets monthly with both COO and CEOs of companies</li> <li>• Steering Group reports progress to AESOC/MCEETYA annually</li> </ul>	<ul style="list-style-type: none"> <li>• Liaises with Executive Officer MCEETYA ICT in Schools Taskforce, MCEETYA Secretary etc</li> <li>• Curriculum Corporation Board monitors company performance</li> <li>• Secretary, AESOC Le@rning Federation Policy Sub-group meets as required with CEO Curriculum Corporation in relation to policy</li> <li>• Curriculum Corporation reports progress to AESOC/MCEETYA annually</li> </ul>
<b>Collection and Release of funds</b>	<p><b>MCEETYA Secretariat</b></p> <ul style="list-style-type: none"> <li>• Collection through specific Le@rning Federation invoices to Departments using information in Phase Two Plan</li> <li>• Release on (1) AESOC acceptance of projected refined annual deliverables (2) The AESOC Le@rning Federation Steering Group sign-off of completed deliverables three times per year</li> </ul> <p><b>The Australian and New Zealand Governments contracted directly with the companies rather than with the Secretariat with release of funds as above.</b></p>	<p><b>MCEETYA Secretariat</b></p> <ul style="list-style-type: none"> <li>• Collection as part of total MCEETYA dues invoice to Departments using information in Phase Three Plan</li> <li>• Release on receipt of (1) AESOC acceptance of projected refined annual deliverables (2) Curriculum Corporation Board sign-off of completed deliverables three times a year</li> </ul> <p><b>The Australian and New Zealand Governments contract with the company rather than with the MCEETYA secretariat with release of funds as above.</b></p>
<b>Development or modification of national agreements or policy arising from the work.</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• The Le@rning Federation COO raises issues through MCEETYA ICT in Schools Taskforce</li> <li>• The AESOC Le@rning Federation Steering Group monitors and commissions work</li> <li>• Chair of AESOC Le@rning Federation Steering Group raises issues with AESOC</li> </ul>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• CEO Curriculum Corporation raises issues through MCEETYA ICT in Schools Taskforce</li> <li>• The AESOC Le@rning Federation Policy Sub-group monitors and commissions work</li> <li>• Chair of AESOC Le@rning Federation Policy Sub-group raises issues at AESOC</li> </ul>
<b>Strategic linkage to MCEETYA directions and agenda</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• The AESOC Le@rning Federation Steering Group</li> </ul>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• The AESOC Le@rning Federation Policy</li> </ul>

<b>14.4 COMPARISON OF GOVERNANCE RESPONSIBILITIES PHASE TWO AND PHASE THREE</b>		
<b>RESPONSIBLE FOR</b>	<b>2001–2006</b>	<b>2006–2008</b>
	<p>has undertaken</p> <ul style="list-style-type: none"> <li>• Networks of COO, Executive Officer ICT in Schools Taskforce, The Le@rning Federation Secretariat, Director Copyright Services, MCEETYA Secretariat</li> </ul>	<p>Committee will undertake</p> <ul style="list-style-type: none"> <li>• Networks of COO, Executive Officer, ICT in Schools Taskforce, Director Copyright Services, MCEETYA Secretariat, Policy sub-group secretary.</li> <li>• Curriculum Corporation work program</li> </ul>
<b>Identifying partnerships and leveraging opportunities</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• Via AESOC Le@rning Federation Steering Group</li> </ul> <p><b>Joint Venture Companies</b></p> <ul style="list-style-type: none"> <li>• COO</li> </ul>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• Via AESOC Le@rning Federation Policy Sub-group</li> </ul> <p><b>Curriculum Corporation</b></p> <ul style="list-style-type: none"> <li>• CEO</li> </ul>
<b>Managing conflicts of interest</b>	<p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• The AESOC Le@rning Federation Steering Group commissioned regular reports and governance advice</li> </ul> <p><b>Boards of joint venture companies</b></p> <ul style="list-style-type: none"> <li>• Company law</li> </ul>	<p><b>Curriculum Corporation Board</b></p> <ul style="list-style-type: none"> <li>• Monitor as part of company governance requirements and corporate law</li> </ul> <p><b>AESOC</b></p> <ul style="list-style-type: none"> <li>• The AESOC Le@rning Federation Policy Sub-group will monitor and audit as required</li> </ul>

## 15. Definition of Terms

<b>ACER</b>	Australian Council of Educational Research
<b>AESOC</b>	Australian Education Systems Officials Committee
<b>AICTEC</b>	Australian Information and Communications Technology in Education Committee
<b>CONTACT LIAISON OFFICERS</b>	Officers from jurisdictions who coordinate the interface between TLF and the jurisdiction and promote the effective use of TLF content
<b>COMPANY</b>	Curriculum Corporation
<b>CONTENT PROCUREMENT</b>	the acquisition of online curriculum content through the development of new online content, re-purposing of existing TLF content, purchase and exchange with other organisations
<b>CURRICULUM AREA REFERENCE GROUP</b>	representative group of content experts who provide advice on curriculum focus and scope of online content, and are consulted during the development process
<b>CRISP</b>	the digital rights management tool developed by the Initiative
<b>CURRICULUM CONTENT</b>	identifiable components of information or knowledge designed to be used within the bounds of a curriculum framework to achieve teaching and learning outcomes
<b>DEST</b>	Department of Education, Science and Training, Australian Government
<b>DIGITAL RESOURCE</b>	an item of digital content from the collection of a cultural institution or public organisation with associated metadata and educational value statement for use in teaching and learning
<b>E-LEARNING SYSTEM</b>	a fully integrated software package that creates a digital learning environment in which teachers and students can manage content, assignments, assessment, interactions, communication and student learning data
<b>EXCHANGE</b>	the information system that manages the content development processes and enables the online curriculum content to be distributed to jurisdictions
<b>IMS</b>	the Global Learning Consortium for developing standards for e-learning systems
<b>ICT in SCHOOLS TASKFORCE</b>	the information and communication technologies in schools taskforce of MCEETYA
<b>ICT</b>	information and communications technologies – the broad range of technologies used for accessing, gathering, manipulation and presentation or communication of information (Cuttance P and Stokes S 2000)
<b>INITIATIVE</b>	The Le@rning Federation initiative

<b>JURISDICTION</b>	The sphere of responsibility of an education authority; government and non-government education authority
<b>LE@RNING FEDERATION CONSULTATIVE COMMITTEE</b>	represents all jurisdictions and consults on content deployment, standards and infrastructure
<b>LEARNING OBJECT</b>	a component of online material that can be identified, tracked, referenced, used and reused for a variety of learning purposes. For example, a learning object could be a single file such as an animation, a video clip, a discrete piece of text or URL or it could be a collection of contextualised files that make up a complete learning activity
<b>MARKET</b>	trade and distribution of schools' online curriculum content
<b>MARKETPLACE</b>	an arena where buyers and sellers, users and creators of online curriculum content trade and distribute that content
<b>MCEETYA</b>	Ministerial Council on Education, Employment, Training and Youth Affairs (Australia and New Zealand)
<b>METADATA</b>	structured data about data, any form of 'tagging' or codified identification used to describe an item of data
<b>ONLINE CURRICULUM CONTENT</b>	identifiable components of information or knowledge designed to be used within the bounds of a curriculum framework to achieve teaching and learning outcomes that are, or can be, made available through the Internet. The term does not exclude delivery through other media such as cache, DVD or LAN
<b>ONLINE LEARNING SERVICE</b>	an environment, provided by education systems to schools, which may include e-learning systems, library systems, search and discovery tools, communications, caches and databases
<b>PHASES</b>	major components of the lifecycle of the Initiative
<b>POOL</b>	the collection of online curriculum content identified through the Initiative for use by Australian schools
<b>REPOSITORY</b>	database of information about applications software that includes author, data elements, inputs, processes, outputs and interrelationships
<b>RIGHTS MANAGEMENT</b>	the development of strategies and systems to acknowledge the creator and owner of intellectual property and to ensure appropriate licences are obtained
<b>SCHOOL</b>	a body registered by a state/territory authority for the delivery of education P–12
<b>SCORM 2004</b>	Sharable Courseware Object Reference Model (SCORM) 2004, a suite of technical standards that enable web-based learning systems to find, import, share, reuse, and export learning content in a standardised way

<b>SHAREHOLDERS</b>	the owners of the Initiative – Ministers of Education in Australia and New Zealand
<b>SECRETARIAT</b>	the officer or officers appointed by AESOC to support the Initiative
<b>SPECIFICATION</b>	a technical document providing implementation details for an application, often produced by communities of practice such as IMS, SCORM 2004, World Wide Web Consortium or The Le@rning Federation
<b>STAKEHOLDER</b>	specific groups, namely government school systems, non-government sectors, Boards of Study and Curriculum Councils, professional associations and the VTE and Higher Education sectors, with a strong professional interest in the Initiative
<b>STANDARD</b>	a specification produced by an accredited standards development organisation such as IEEE or ISO
<b>STEERING GROUP</b>	a subcommittee of AESOC with delegated responsibility for Phase Two of The Le@rning Federation Initiative
<b>THE LE@RNING FEDERATION</b>	a registered trademark of the Initiative
<b>USERS</b>	teachers and students who apply the online curriculum content in an education setting to achieve learning outcomes
<b>VTE</b>	Vocational and Technical Education

## 16. References

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