



CARRICK INSTITUTE

Digital Rights Management Project Outline

Amendment History

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1 Introduction

The Carrick Exchange (the Exchange) project will provide an online environment supporting the discovery and exchange of ideas and resources by members of the Australian higher education sector.

The management of intellectual property rights (IPR) in the online environment – commonly referred to as Digital Rights Management (DRM) – is an important challenge that will need to be met for the Exchange to be recognised as sustainable and state-of-the-art.

DRM, particularly in the education and training sector, has been a controversial topic for at least the last five years. However, there are many initiatives that have informed – and can inform – mechanisms for its deployment. This Project aims to document these developments, identify issues, and make recommendations to the Carrick Institute for how to implement infrastructure that will accommodate the management of IPR.

The development of DRM infrastructure within the Exchange will need to:

- Meet certain legal requirements
- Be easy to understand and use
- Be consistent with emerging trends internationally
- Provide a means for interoperability with relevant higher education sector projects and resources
- Support the delivery of Exchange services.

1.1 Terms and Acronyms

For the purposes of this Project, the following definitions are used:

DRM: Digital Rights Management

Interoperability: the ability of two or more systems, or components to exchange information, and to use the information that has been exchanged. The ability to share metadata records via standard protocols

IPR: Intellectual Property Rights

REL: Rights Expression Language

TPM: Technology Protection Measure

2 Aims and objectives

The Exchange DRM investigation will aim to:

- Identify the Exchange's key IPR requirements based on the range of services in the Demonstrator (<http://rindemo.educationau.edu.au>);
- Undertake an investigation of current IPR policies and practices in both Australian Higher Education as well as internationally;
- Identify key projects both nationally and internationally that are relevant to the aims of the Carrick Exchange;
- Summarise IPR policies currently in place within the Australian Higher Education sector;
- Summarise the various Rights Expression Languages and any issues associated with their use;
- Identify issues relating to the implementation of Technology Protection Measures (TPM) in relation to managing IPR in Higher Education contexts;
- Investigate DRM systems that would enable the effective management and discovery of the Exchange's content;
- Identify a DRM framework for interoperability;
- Draft a set of recommendations and produce a Discussion Paper from which further consultation can proceed;
- Collaborate with experts and stakeholders within the Higher education sector;
- Establish a Carrick Exchange DRM Reference Group;
- Organise a face-to-face workshop to discuss the investigation findings and recommendations;
- Propose a model for rights attribution of teaching and learning content;
- Develop a Final Report based upon consultations focused on the Discussion Paper; and
- Provide recommendations for how DRM should be used and implemented to support the activities of the Exchange.

Following the Investigation, a strategy for implementation will be developed.

2.1 Issues for consideration in the investigation

- *Access*: teaching and learning resources reside in many different repositories and contexts; access to them are subject to a variety of protocols; *Access Management* infrastructure could feasibly be implemented in ways that minimise the use RELs;
- *Business*: developing a clear business case for the implementation of a DRM framework;
- *Conceptual*: teaching and learning can be described as complex adaptive systems; in digital networked environments the complexity is increased;
- *Content licensing*: development of content licensing regimes appropriate for both teaching and learning; this will need to consider a range of contexts from open access to proprietary or subscription based schemes;
- *Copyright*: determining the ownership of copyright of teaching and learning materials is not always clear and can become very complex depending upon the context in sourcing the materials (especially in some organisational settings);
- *Enforcement*: determining how best enforce IPR policies;
- *Interoperability Framework*: development of any proposed DRM framework for interoperability will be inter-dependent with the various components of the technical architecture plan (conceptual, functional, services, information, application, technical, security, and deployment);
- *IPR and metadata*: the creation of metadata will be important to the functioning of the Exchange but the question of who will create and maintain it will need to be determined;
- *Legal*: there are many laws that are relevant to the management of IPR in Australia and internationally and some very contentious patent issues that will require careful explanation; moreover, IPR laws are continually subject to revision; recommendations will need to take account of the DEST review of patents in relation to REL and DRM; DRM is plagued by lack of clarity and terse legal debate;
- *Policy*: The Carrick Institute will need to determine an IPR policy with sufficient breadth and flexibility; and,
- *Role of social tagging*: harnessing of user created tags to support discovery and social networking has IPR consequences.

2.2 Scope and boundaries

This investigation will identify the IPR requirements and DRM options available that need to be considered in development of the Exchange services.

In developing a DRM system to support the Exchange the following will be considered:

- *IPR Policies*: the range of IPR policies currently operating throughout the Australian Higher Education sector;
- *Rights Expression Languages*: for expressing copyright, contract and/or licensing arrangements, and for possible access control where appropriate;
- *Licensing*: what kinds of licenses will need to be in place in order to share and distribute teaching and learning resources?
- *Technologies*: the key technologies that should be considered in deployment of a DRM system, with particular emphasis upon interoperability; and
- *Related Projects*: a summary of related projects that can inform the direction of the Exchange.

It will *not* seek to address issues that require legal advice prior to any proposed implementation. However, it will identify these issues within the Discussion Paper and Final Report.

3 DRM investigation deliverables

3.1 Environmental scan/literature review

- An investigation of current IPR policies and practices in both Australian Higher Education as well as internationally;
- Identification of key projects both nationally and internationally that are relevant to the aims of the Carrick Exchange in terms of deployment of DRM systems;
- A summary of IPR policies currently in place within the Australian Higher Education sector;
- A summary of the various Rights Expression Languages and any issues associated with their use;
- Identification of issues relating to the implementation of Technology Protection Measures (TPM) in relation to managing IPR in Higher Education contexts;

- Investigation of DRM systems that would enable the effective management and discovery of the Exchange's content;
- Identification of a DRM framework for interoperability;
- Proposal of a model for rights attribution of teaching and learning content; and
- A Discussion Paper containing a draft a set of recommendations.

3.2 Establish Carrick Exchange Higher Education DRM Reference Group

- Identification of higher education sector practitioners with expertise in IPR who will be able to contribute and influence the direction of the Exchange's DRM requirements;
- Establishment of a Carrick Exchange DRM Reference Group;
- Develop terms of reference for the Group;
- Collaboration with experts and stakeholders within the Higher education sector (some of whom will be on the reference Group, some will not);
- Organise a face-to-face workshop to discuss the investigation findings and recommendations;
- Provide recommendations for how DRM should be used and implemented to support the activities of the Exchange; and
- Develop a Final Report based upon consultations focused on the Discussion Paper

3.2.1 Tasks of the Reference Group

- Meet fortnightly for the duration of the project;
- Attend a face-to-face meeting;
- Identify and/or confirm the IPR requirements of the Exchange project;
- Review the investigation findings and provide advice on the proposed recommendations;
- Identify candidate TPM and/or DRM systems for the management and discovery of Exchange resources; and
- Contribute to the documentation of the Exchange DRM system.

4 Summary of tasks and timelines

Task	Duration	Cost (ex GST)
Environmental scan Research and develop Discussion paper, consulting with experts and stakeholders <ul style="list-style-type: none"> ▪ First Draft ▪ Final 	19 March 2007 31.March 2007	
Carrick Exchange DRM Reference Group Activities <ul style="list-style-type: none"> ▪ Establish a Reference Group to collaboratively develop metadata requirements ▪ Invite participants ▪ Organise face-to-face meeting ▪ Write report of meeting outcomes ▪ Develop communications strategy and mechanisms to communicate with the group ▪ Plan and organise regular teleconferences, including agendas and discussion papers ▪ Comment on DRM Discussion Paper ▪ Consultation with experts in the sector ▪ Summarise issues arising ▪ Provide recommendations for Final Report 	Early April ¹	
Collaboration 8 -10 members from Higher Education sector (some from key projects) Travel and time spent in meeting and contributing to the work.	May	

¹ This activity is dependent on the completion of the investigation.

5 Standards

Work and publications by the following organisations utilising standards in the development of ICT infrastructure will be considered:

- AEShareNet
- Australian Flexible Learning Framework
- Creative Commons
- Dublin Core Metadata Initiative
- IEEE Learning Technology Standards Committee
- ISO and ISO/IEC
- JISC (UK)
- National Library of Australia
- National Higher Education Initiatives such as ARROW and APSR
- OASIS
- OeBF
- OMA
- Standards Australia
- *Others (to be identified)*

6 Budget

7 Deliverables

- Discussion paper
- Final Investigation Report