

JISC DEVELOPMENT PROGRAMMES

CD-LOR Extended Use Cases

Project

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Partner Institutions	University of Strathclyde and Intrallect Ltd.		
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Document

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Document History

Version	Date	Comments
V1.0	24 Jan 07	First collation of completed use cases.

The CD-LOR Project collected 24 Use Cases representing from its associate partners in Spring 2006. These use cases represent descriptions of new repository functionality and behaviour. The draft use cases were discussed by project associates and those deemed most useful chosen for development and implementation. Of the original 24 use cases, three (02, 03 and 12) were chosen for development without any amendment. Elements from a further nine use cases (06, 09, 10, 11, 13, 14, 17, 18, 24) were combined into a further four new use cases (25-28) and these too were developed and implemented. Further work was done with one more use case (07: Training users of repositories) but this did not require any implementation and so the use case itself was not developed further.

This document brings together these final seven use cases further developed by the project. They are:

- CDLOR 02:** Bulk Upload of Resources
- CDLOR 03:** Disaggregating Complex Resources
- CDLOR 12:** Community Support for Learning Object Adaptation
- CDLOR 25:** Informing Users of New Resources
- CDLOR 26:** Web based Public Search of Repository
- CDLOR 27:** Managing Access to content
- CDLOR 28:** Reflective Practice When Uploading Learning Objects

The original 24 use cases are available from:
<http://www.academy.gcal.ac.uk/projects/CD-LOR/CD-LOR-scenarios-final.doc>

Use Case CDLOR 02

Bulk upload of resources

Authors

Sarah McConnell

Use Case Summary

A Teacher has a collection of 250 objects which they would like to put into a repository as quickly as possible

Primary Actor (and goal)

Teacher	To upload many (250) learning objects (gif, pdf, word files, content packages) into a repository at the same time.
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Other Actors (and goals)

Repository Workers	To process(add metadata, catalogue, validate) resources as quickly and accurately as possible
Repository	

Stakeholders and Interests

Repository Manager	To have a robust and efficient system for putting resources into intraLibrary and ultimately open it to new communities.
University Management	To encourage staff to put as many objects as possible into the repository

Prerequisites

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| <ul style="list-style-type: none"> - Repository has a workflow or set of workflows⁴ - Repository have different groups¹ and individuals within these groups have access to different stages³ of different workflows⁴ |
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Main Success Scenario

1	Teacher transfers 250 learning objects into a “holding area” ²
2	Teacher can see details (title, file type, name of contributor) of all learning objects in the “holding area” and can select one or more of them.
3	Teacher chooses where the objects should go so that the appropriate people can add metadata and rights (i.e. choose a stage ³ of the workflow ⁴)
4	Teacher clicks on button to move the selected objects to the chosen stage in the workflow

¹ A group is a defined set of users.

² The “holding area” is an area in the repository where objects are put before uploading in to the repository.

³ A “stage” is a point in a workflow where a set of people can perform actions on the object such as adding metadata.

⁴ In this case a “workflow” is a sequence of different activities which are performed by different actors in order to move objects

5	Repository Workers (e.g. cataloguers, rights holders) complete metadata, rights, cataloguing and then publish the objects.
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Extensions

2a	Teacher may wish to put objects in holding area and then someone else deals with them
2a1	May need to have different holding areas which can be accessed by different groups of people.
2b	The objects are so large that moving the objects from the Teacher's computer to the repository takes a large amount of time.
2b1	The file space for the "holding area" is located on the same disk space as the repository so all 250 files are transferred from the local disk to the repository server at the same time.
2c	The objects are too large to go into the file space allocated for the "holding area"
2c1	Repository does not upload files and sends error message to Teacher
3a	Teacher can also choose a metadata template ⁵ which will be applied to the resources which are being uploaded
5a	It may be the case that the Teacher is the only person working on the resources

⁵ A metadata template is a set of predefined values for metadata fields which can be added to an object on upload.

Use Case CDLOR 03

Disaggregating complex resources

Authors

Sarah McConnell

Use Case Summary

A lecturer finds a learning object (an IMS content package). The lecturer takes part of the learning object to use in his own teaching. This part of the learning object could be an asset or a content package in its own right.

Primary Actor (and goal)

Lecturer	To export part of an existing learning object in order to use it either in their own teaching or to develop a new complex learning object.
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Other Actors (and goals)

Repository Management	To facilitate as much reuse of resources as possible
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Stakeholders and Interests

University Management	To encourage efficiency within their institution through reuse of resources
Resource creator	To design Los in a way that makes it easy to disaggregate them

Prerequisites

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| <ul style="list-style-type: none"> Repository can store standard content packages (IMS Content Packages, SCORM Packages) |
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Main Success Scenario

1	Lecturer searches for relevant resources in the repository
2	Lecturer finds a complex learning object (content package) and previews it
3	Lecturer identifies a small part of the content package that he would like to use.
4	Lecturer exports the part of the content package he wants to use
5	Lecturer uses the materials in his teaching

Extensions

2a	Lecturer does not find relevant resources (but they do exist)
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2a1	Repository Cataloguer needs to catalogue assets contained in a content package wherever possible.
3a	Lecturer can see what he would like to use but is unable to identify/select the relevant files
3a1	Digital repository shows the structure of the package which allows lecturer browse and identify the relevant asset/sub-packages
4a	The lecturer prefers to link to the materials in the repository rather than export them
4a1	The repository provides the lecturer with a URL which will link directly to the part of the content package he wants to use.
4b	The lecturer would like a choice in how to export the part of the package he wants. Specifically, he would like to either download the content as a standard content package or an asset (or collection of assets).
4b1	The repository provides the lecturer with the download options described in 4b
5a	The lecturer is unable to use the materials due to compatibility issues
5a1	Repository exports content in a standard format

Use Case CDLOR12

Community support for learning object adaptation

Authors

Neil Ballantyne, Ellen Daly

Use Case Summary

A lecturer wants to get an object modified for the benefit of themselves and the rest of the community. The lecturer and other lecturers make some comments and the resource is modified accordingly.

Primary Actor (and goal)

Lecturer	To get a learning object adapted for use by his/her community
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Other Actors (and goals)

Other lecturers	To get high quality resources for teaching with
Repository manager	To provide a service which meets the users needs
Object owner	To produce a high quality resource which is to be used by the community

Stakeholders and Interests

Community	To ensure high quality learning resources are made available to lecturers
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Preconditions

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| <ul style="list-style-type: none"> - There is a repository and/or a discussion board system which has the necessary functionality - There is a well-resourced repository support team |
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Main Success Scenario

1	Lecturer searches through a learning object repository
2	Lecturer finds a learning object which would be very useful for her and others if it were to be adapted
3	Lecturer writes some comments about the learning object
4	Other lecturers observe comments about the learning object and preview the Learning Object
5	Other lecturers make comments about the learning object
6	Repository manager observes the comments about the learning object
7	Repository manager sends notification to object owner (along with comments)

8	Object owner modifies resource and puts a new version into the repository
9	Object owner notifies the repository manager that the new resource is now available
10	Repository manager notifies the lecturers that the resource is now available

Extensions

2a	Lecturer wants to adapt the object themselves
2a1	Lecturer checks that they are allowed to adapt the object
2a1a	Lecturer is not allowed to adapt object, or the necessary rights information is not shown (fail)
2a2	Lecturer makes alterations to the object
2a3	Lecturer deposits the new object in the repository (success)
6a	Repository manager is not responsible for managing this process
6a1	Somebody else takes responsibility for all parts labelled Repository manager in this user case
7a	The Object Owner may not be the appropriate person to make modifications to the resource
7a1	Repository manager contacts somebody else (not object owner) who is responsible for making changes to learning objects.(success)
8a	Object owner has insufficient motivation or resources to adapt object (fail)
8b	Object owner suggests lecturer adapts object and gives necessary permissions
8b1	Lecturer gains credit for modifications (as in 2a)
9a	The deposit process of Repository system automatically notifies repository manager of new resource
10a	Lecturers finds the resource is not what is required
10a1	Lecturer writes further comments about the resource
10b	Lecturer does not want to be notified about the resource being made available
10b1	When lecturer makes comments in step 3 they have a choice about whether they want to know if new version of object is available

Use Case CD-LOR 25 (combined from CDLOR 09, 13)

Informing users of new resources

Authors

Neil Ballantyne, Ellen Daly, Mike Dodds & Catherine Fleming

Use Case Summary

A lecturer is keen to stay up to date with new materials in the Learning Object Repository relevant to his specific teaching area. The lecturer can subscribe to individual learning objects, particular taxonomy nodes, search criteria or specific collections. Every time an individual LO is updated, or a change occurs within a taxonomy node or collection, the system sends him a notification giving him the URL location of any updated or new LOs.

Primary Actor (and goal)

Lecturer	To be informed of relevant resources without having to constantly check the repository.
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Other Actors (and goals)

LOR	Notify the relevant users of new/updated resources
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Stakeholders and Interests

Subject CoP	Could use notification mechanism to inform community of new resources in that subject domain
LO contributors	They know that their resource can be disseminated very quickly
LOR curator	Knowledge of repository contents is better increasing the chances of materials being reused/repurposed.

Preconditions

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Main Success Scenario

1	The lecturer searches the learning object repository
2	The lecturer creates a news feed based on the criteria of the search
3	The lecturer subscribes to the news feed with a news feed reader*
4	The repository creates a new entry in the news feed when an object is added to the repository which meets the original search criteria
5	The lecturer sees from his news feed reader that an object he may be interested in has been added to the repository
6	The lecturer clicks on the link to see more information about the object

* This could be as simple as book-marking the news feed URL in a web browser

Extensions

1a	The lecturer browses the repository
1b	The lecturer views a collection
2a	The lecturer would prefer to be emailed when a new resource is added
2a1	The lecturer “subscribes” to the search they have made
2a2	The repository sends the lecturer an email when a relevant object is added to the repository. The email contains information about the object and a link to the object.
3a	The lecturer does not know how to use RSS/news feed technologies
3a1	Go to step 2a
4a	The repository will check for new objects which fit the search criteria a regular intervals (which can be set in the repository?)
6a	The lecturer does not have the necessary permission to access the object
6a1	The repository does not return results of objects that the user does not have access to

Use Case CDLOR 26 (combined from CDLOR 09, 24)

Web based Public Search of Repository

Authors

Jackie Proven, David Dripps, John Casey, Mike Dodds & Catherine Fleming

Use Case Summary

A tutor goes to a web site to learn more about a repository's contents by searching it based on keywords. The tutor is impressed enough to register for a login to the repository.

Primary Actor (and goal)

Tutor	To search repository without logging in to see if there is anything useful for him
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Other Actors (and goals)

Website	Get info about objects from repository and display to user
Repository	Provide results of search query

Stakeholders and Interests

Repository Curator	Wants to increase the number of users using the repository service. By exposing the contents of a repository publicly this will promote the use of the repository.
Content Creators	Promote use/reuse of content

Preconditions

It is assumed that the repository offers a search service which is a recognised standard/protocol (e.g. SRW) and search results are returned in a standard format (e.g. IMS LOM, Dublin Core, etc.)

Main Success Scenario

1	Tutor goes to website and submits a keyword*
2	Website sends search request to repository
3	Repository sends search results to website
4	Website displays search results
5	Tutor evaluates 'usefulness' of resources
6	Tutor registers for repository email

*Keyword means a word that you wish to search for, but doesn't imply that it will only search the metadata field "Keyword".

Extensions

1a	User submits more than one keyword
1a1	Website includes all keywords in search request
1a2	Repository returns info on objects containing all keywords first followed by objects with less than all of the keywords in the information
1b	The user does not submit keywords – they are predefined for that webpage Note: this is so projects can set up web pages displaying the 10 highest-rated objects or most recently submitted objects for a certain subject, etc.
1b1	The user goes to the website and the website automatically sends a predetermined search request to the repository
2a	The repository is not responding
2a1	The website displays an appropriate error message
3a	There are no objects meeting the search criteria
3a1	The repository returns what? An empty file? A no results message?
3a2	The website displays an appropriate message and allows the user to search again. This could include some advice to the user on how to improve their search.
4a	The search results are not easily read by the user due to formatting
4a1	The website applies style and formatting to the search results
4b	The information contained in the search results is not useful
4b1	The website can be configured to display certain metadata fields.
6	Tutor is not impressed by objects found in search so doesn't want in to the repository (fail)

Use Case CDLOR 27 (combined from CDLOR 11, 17)

Managing Access to Content

Authors

Neil Ballantyne, Ellen Daly, Iain Wallace

Use Case Summary

An agency based Child Protection trainer wishes to contribute a series of learning objects to a repository so that they can be used (solely) by agency based registered social workers.

Prerequisites

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| <ol style="list-style-type: none"> 1) The repository is set up so that a group⁶ of users has been defined which consists of agency based registered social workers only. 2) The authentication and authorisation system is robust enough to be trusted by people depositing materials 3) The authentication and authorisation system does not inhibit use of the repository 4) The repository has basic search, find, preview, download functionality, Users can also view metadata associated with resources 5) The repository administrator can assign users to one or more groups 6) Resources in the repository can be accessed by one or more of these groups. |
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Primary Actor (and goal)

Trainer	<ul style="list-style-type: none"> -Make a resource available to a specific community -Make sure that people outwith the community do not have access to the resource
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Other Actors (and goals)

Repository	
Agency based social worker	-To access resources from the repository
General repository user	-To access appropriate resources from the repository
Repository administrator	-To facilitate depositing and using resources from the repository

Stakeholders and Interests

Funders of Repository	<ul style="list-style-type: none"> -To ensure resources in repository are used as widely as possible -To avoid any complications which may emerge through making resources available (e.g. respecting copyright, individual privacy etc etc)
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⁶ A group is a defined set of users.

Resource Owners	-To ensure resources are not misused.
Resource Creators	- To share work in progress with collaborators before making publicly available
Repository Curator	- to store student-created work in a secure area so not having to worry about the standard of resources

Main Success Scenario

1	Trainer puts learning object into a repository
2	Trainer adds metadata to the object
3	Repository presents options for who will be allowed access to the resource
4	Trainer chooses to allow a group of users who are agency based social workers to have access to the resource (to other users the resource is invisible)
5	Trainer publishes resource
6	Agency based registered social worker can search, find, preview and download the resource and view metadata
7	User who is not an Agency based registered social worker can not search, find, preview and download the resource. In fact this user will not be aware that the resource is in the repository

Extensions

1a	Steps 1-4 could be done by different people if there are different people responsible for depositing resources, adding metadata, validating a resource etc.
1a1a	Trainer needs to associate access information with the resource when added to the repository
1a1b	Trainers needs to send information to the repository administrator stating the access constraints on the resource
3a	Trainer wants to have different options for different resources e.g some resources may be OK to be used by all repository users and some may not be
4a	Trainer may wish to allow limited access to the resource by people who are not agency based social workers. For example they may be allowed to search for and find a resource and see the resource metadata. However they might be restricted from previewing or downloading
4b	It may not be the trainer who gets decide who gets access to what. For example, the Repository Administrator may want to decide.

Use Case CDLOR28 (combined from CDLOR 06, 10, 14, 18)

Reflective Practice when embedding Learning Objects

Authors

Mike Dodds, Catherine Fleming, Neil Ballantyne, Ellen Daly, Jackie Proven, John Casey, David Dripps & Alan Masson

Use Case Summary

A lecturer discovers some content in the learning object repository which she would like to use. At download the repository asks the lecturer if she would like a reminder 1 week later to send feedback regarding her use of the object. She does and 1 week later she submits her experiences in embedding the learning object in her teaching.

Primary Actor (and goal)

Lecturer	To share her experiences regarding the use of a learning object
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Other Actors (and goals)

Repository	To remind the lecturer to submit her experiences to the repository.
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Stakeholders and Interests

Curator	To increase the value of the repository to the teaching community
Other lecturers	To benefit from peers' experiences in using learning objects

Preconditions

The lecturer has found some content they want to download

Main Success Scenario

1	The lecturer selects the option to download the learning object
2	The repository gives the lecturer the option to be sent a reminder 1 week later to give feedback regarding her use of the object
3	The lecturer selects this option
4	The repository allows the learning object to be downloaded
5	The lecturer embeds the learning object into her teaching
6	The repository sends the lecturer a reminder to give feedback about her experiences using the learning object
7	The lecturer clicks on the link provided which takes her to the repository (authentication needed)
8	The lecturer completes information about her use of the learning object in her teaching and submits it.

Extensions

2a	1 week may not be long enough for some users
2a1	Other options are presented for length of time before being reminded (fortnight, month)
3a	The lecturer doesn't want a reminder so continues without selecting this option (she is still able to download the object).
4a	For some reason the lecturer decides not to download the object
4a1	The repository will not send a reminder even though the lecturer requested this.
5a	The lecturer ends up not using the learning object
5a1	It may still be useful for the lecturer to give feedback about the learning object (e.g. What was the reason the object was no longer suitable? Level? Pedagogy?)
7a	An alternative would be to hold all the comments outside of the repository – perhaps in a communication tool for her community of practice
8a	The information is stored in the metadata of that object so if anyone were to export it the information could be kept with the object.*

*Some say that this information shouldn't be stored and exported with the object.