

The Democratisation of Information – Learning Objects

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What is a Learning Object?

What does the democratisation of information mean?

- “Learning objects” is a clumsy, abstract name for a heterogeneous group of materials.

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Next Generation Learning “d-generation”

- Increase availability
of information
- Lower access
barriers
- Allow learners
to participate
- Democratic learning
environment

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Learning Objects

Reusable

Durable

Affordable

Searchable

Retrievable

Stored for others to use

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What are learning objects

John

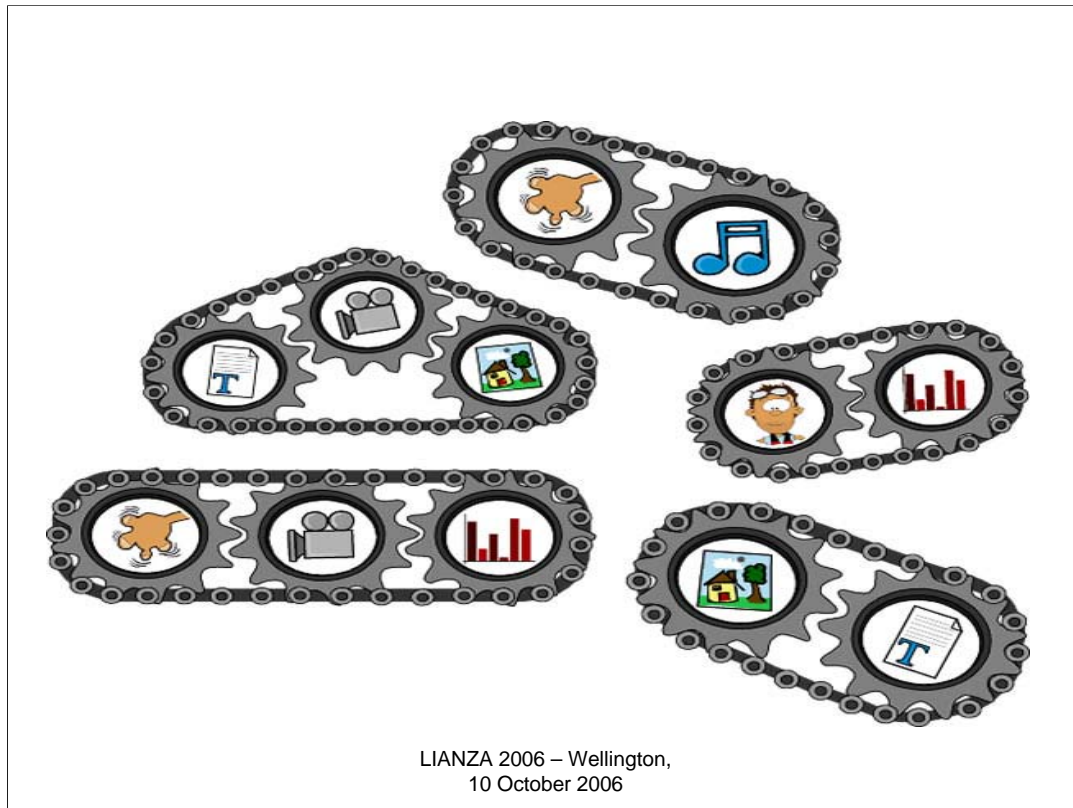


Assets and Granules

In learning educationalists constantly use "pieces" of content to enhance learning and to engage students. For example a map of New Zealand could be used as resource to indicate the physical relationships of a student's location with other towns or city's. Often these pieces of content are used in more than one activity. For example the map used in the previous activity could be re-used to indicate the location of rivers, streams and lakes or alternatively be used to describe geographical features such as wet lands, plains, hill country and mountains. Because the map described is a reusable resource we can call this resource a teaching **asset**.

However, is the map (the asset) on its own a "learning object"? I think we would all agree the map should, indeed must, be associated with other pieces of content, for example a key, to make it useful. In short the map it is only one piece or **granule** of the total content used.

In discussions on conceptions of learning objects the terms **assets and granules** are often **interchanged**. While there can be seen to be distinct differences in essence **assets or granules** can be seen to be the prime content **cogs** of learning objects.

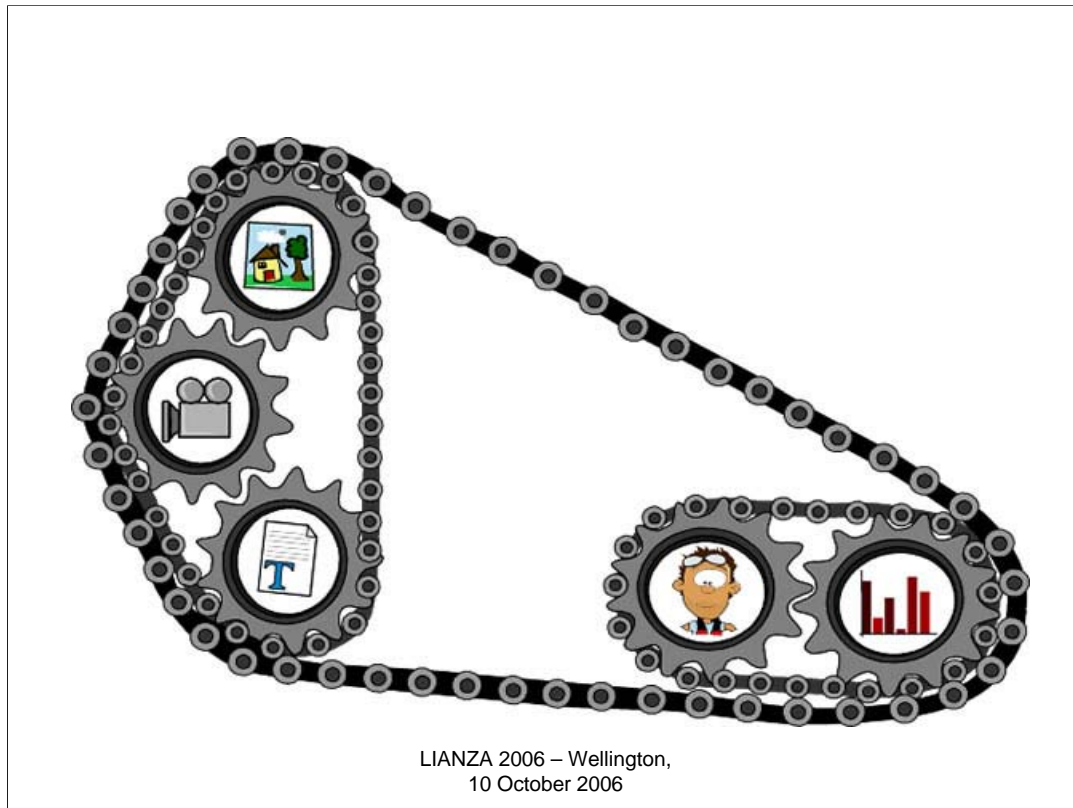


Knowledge Objects

In the previous section it was argued **assets and granules** were the prime content **cogs** of learning objects. Lets examine our map once again. By linking of one granule, a graduated key showing town and city population sizes, to a second granule, a map of New Zealand, we are creating content to illustrate population settlement patterns in New Zealand. Alternatively we could link one asset, a map of New Zealand with a second asset, a coloured key showing altidue. In this scenario we have created content that is design specifically to enhance student understanding of the physical features of New Zealand.

It can be argued in each scenario we have created content designed for a **specific purpose**. When we design content for a specific purpose we can be seen to be creating a **knowledge object**. In essence the resulting content created by the linking of two or more **granules or assets** to create content for a **specific purpose** is called a **knowledge object**.

However, is the map and associated key (knowledge object) on its own a learning object? I think we would all agree knowledge objects should, indeed must, be linked with specific student activities for them to be useful. For example in the scenario described above there might be included student activities such as identify the four largest urban areas in New Zealand. In short knowledge objects are designed for a specific purpose and on there own are incomplete. If assets and granules are the cogs of learning objects knowledge objects are the **links in a chain** that holds them together.

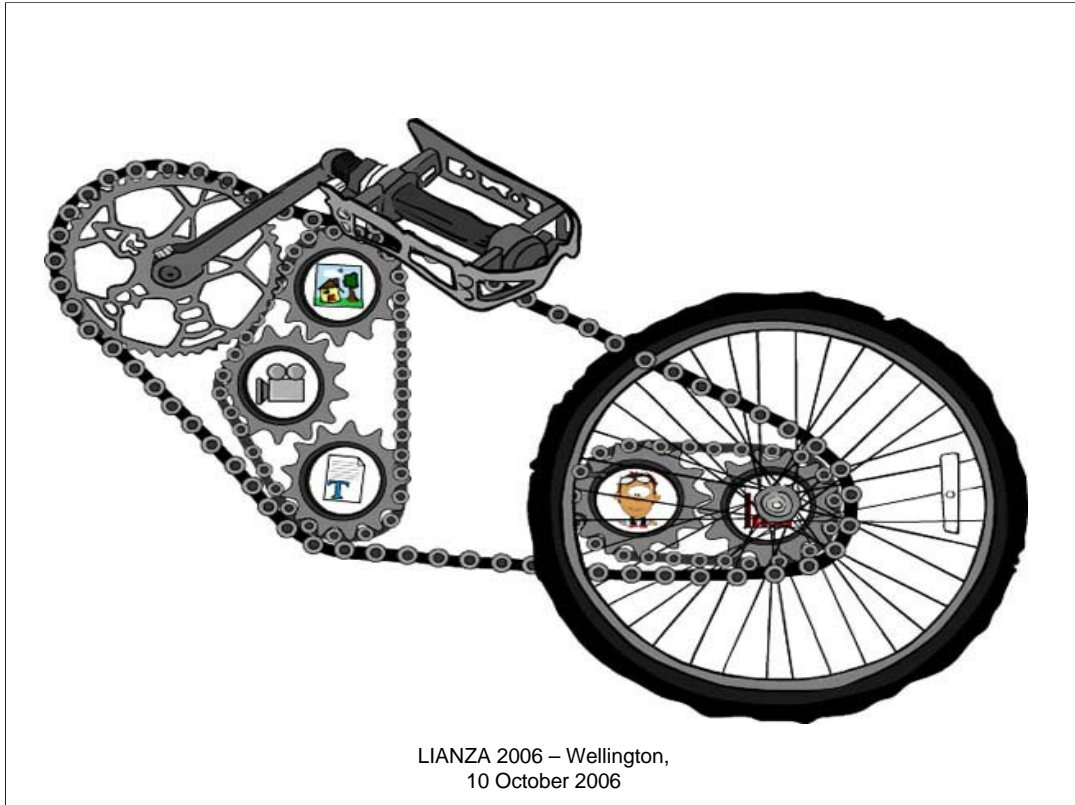


Information Objects

In the previous section it was argued **knowledge objects** were created for a specific purpose and they were the links in the chain to hold assets and granules together. Lets examine our map again. By linking one knowledge object, a combination of the granules map and key, with a second knowledge object, a combination of the assets a textual explanation using map keys and a list of student identification activities, we have created a learning event engaging students in **understanding** the principles of using maps and keys. Alternatively we could link one knowledge object, a combination of the granules map and key, with a second knowledge object, a combination of the asset a textual explanation of "urban and rural" and an asset of list of student interpretive activities, we have created a learning event **engaging** students in exploring the concept of poulation density.

In can be argued in each scenario we have created events designed engage students in **specific cognitive tasks**. In essence we are creating an activity to **inform** students of a specific principle, process, procedure or concept, we have created an **information object**. In essence the resulting **object** created by the combining of two or more **knowledge objects** to create learning event to **inform** studnents of a specific principle, process, procedure or concept, is called an **information object**.

Howevr, is the combination of two or more knowledge objects (information object) on its own a learning object? I think we would all agree information objects should, indeed must, be linked with specific student outcomes for them to be useful. For example in the scenario described above there might be included student assessment activities designed for tutors and teachers to monitor and report on student progress against a specific learning objective. If knowledge objects are the links in the chain of learning objects information objects are the **chain** driving understanding.



In the previous section it was argued **information objects** were created to **inform** students of a specific principle, process, procedure or concept and they were the **chain** that drove understanding. Let's examine our map again. By linking one information object, informing students of the concept of population density, with an assessment activity, identification of major urban areas of New Zealand, to monitor student progress against an identified learning objective, students will understand the concept of population density and be able to identify four regions of high density, we have created a learning activity with a **specific outcome**.

It can be argued in this scenario we have created a learning activity designed to evaluate and report on student understanding measured against a **specific learning objective**, we have in fact created a **learning object**. In essence the object created by linking information objects with a specific learning objective, evaluation and assessment activities, is called a **learning object**.

The characteristics of learning objects are firstly, it is a learning activity with **strong internal cohesion** (it measures one and only one learning objective) and secondly, it is an independent entity with **weak coupling**, (the measurement of progress is not dependent on other learning activities). If information objects are the chain driving understanding learning objects are the **pedals and wheels** controlling progress.



In the previous section it was argued learning objects had two main characteristics firstly, a learning object it is a learning activity with **strong internal cohesion** (it measures one and only one learning objective) and secondly, a learning object is an independent entity with **weak coupling**, (the measurement of progress is not dependent other learning activities). However, no discussion on learning objects can be divorced from the method and context of delivery.

Let's take our example of the map again. When using a learning object focused on population density, our identification activity (identify 4 large urban areas) could, and possibly should, be different if our learners lived in the South or North Island. We would want to tailor the interpretive activities to meet the location of the learners. Alternatively, if our learners were studying at level above (or below) the level of assessment developed we would want to modify the assessments to meet the level of the learners engaging with the learning object. In each of the scenarios described a crucial element is the ability to **re-purpose** and / or **re-author** the learning objects to meet the needs of learners in different **contexts**. It is clear the **modification** of learning objects is critical for wide spread re-use.

The scope of this introductory course is to narrow to include a full definition of **re-purposing** and / or **re-authoring** and **modification**. However, in keeping in tune with the metaphor of the bike we regard this activity as the ability to **change gear**.



Does your repository look like this? (New Wintec logo)

Metadata – the key to democratising information

- <http://tekupenga.elearning.ac.nz/>

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Go through to MMS course – Module 8, OSFOR application profile. Hands-on activity which elements are necessary to describe LO – mandatory, optional

How can LOs be discovered and deployed?

<http://tekupenga.elearning.ac.nz/>

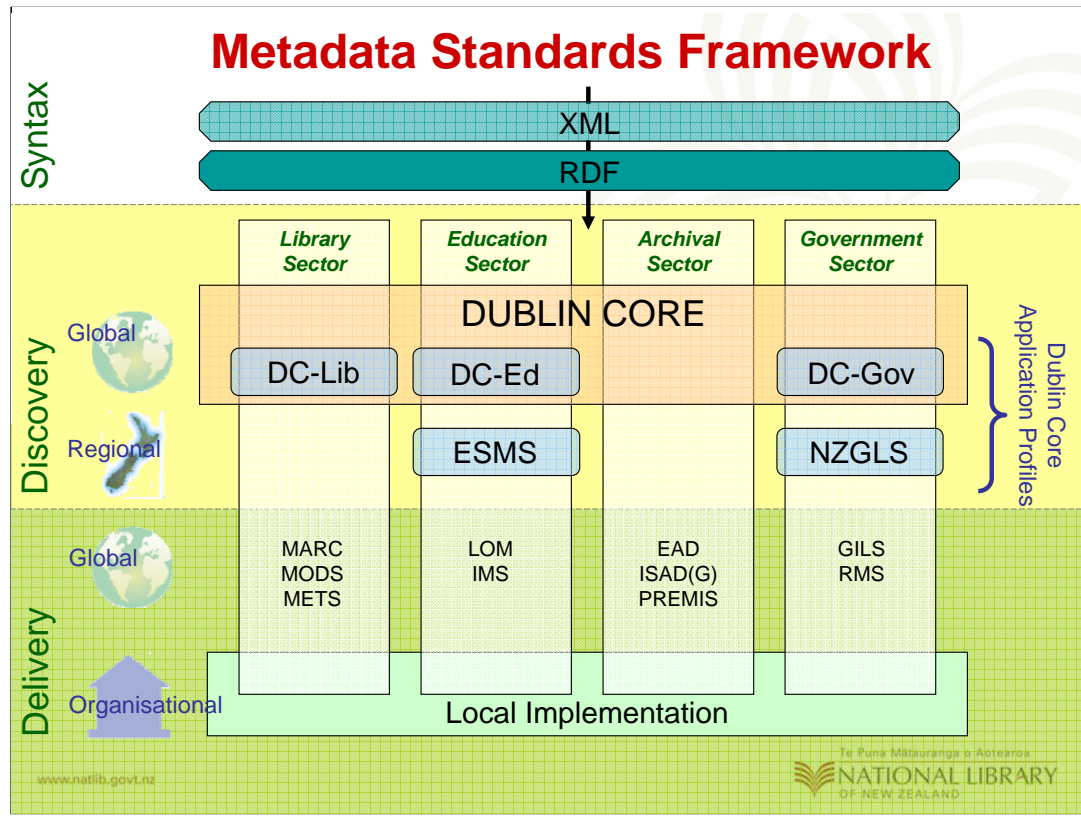
http://10.10.3.31/perl/set_lang?

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- Where to from here
- John: Informed and Research Communities?
- Sarah-Jane: National Library and Global Initiatives?

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Metadata Standards Framework



Future Initiatives NZ

- [National Digital Strategy](#)
- [National Digital Forum](#)
- [Institutional Repositories for the Research Sector](#)
- [The Way Forward](#)

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THE NATIONAL DIGITAL FORUM

The National Digital Forum was established in 2002 to achieve the cooperative development, delivery, and preservation of high quality digital resources that reflect the natural and cultural heritage of Aotearoa New Zealand.

The purpose of the Forum is to encourage, support and promote a national, cooperative, bicultural and cross-sectoral approach to enhancing access to natural and cultural heritage resources online. The Forum seeks to foster best practice, and build expertise nationally and across all relevant sectors.

The strategic objectives of the National Digital Forum are:

- * To share information on digital projects, initiatives, and activities;
- * To identify, promote and advise on best practice in digitisation activity;
- * To promote the use of agreed standards to ensure 'interoperability' and effective resource discovery and retrieval, now and in the future;
- * To develop expertise in the regions and nationally in the area of digitisation;
- * To achieve collaborative and cost effective digitisation outcomes through the avoidance of duplication of effort and resources;
- * To promote the long-term storage and preservation of digital resources; and
- * To be a national voice for advocacy on digitisation initiatives;

To date the National Digital Forum has organised annual conferences, established the NDF website, established a register of digitisation activities; organised training opportunities in association with the annual conference, and initiated Matapihi.

All of these achievements have been made possible by the leadership and commitment of the 3 national cultural institutions Archives NZ; the National Library of New Zealand, and Te Papa, and many other institutions around New Zealand who have contributed significant time and expertise.

The Advisory Group of the National Digital Forum has recognised that if the Forum is to continue to achieve its strategic objectives, and keep pace with the needs and speed of change in this sector, then an ongoing project-focussed approach is required. As a result, a new Terms of Reference and governance structure has been agreed for the Forum. This is based on the support of Partner Organisations and an elected Project Management Group or Board, which will set direction and coordinate various sub-projects established to progress the work of the NDF. A copy of the Terms of Reference is available at the following link:

http://ndf.natlib.govt.nz/downloads/pmg_termsofreference.pdf

The purpose of this letter is to invite your organisation to register as a Partner Organisation of the National Digital Forum. In addition to supporting the strategic objectives above, being a partner organisation will entitle your organisation to the following benefits:

d-parture

- Every citizen has an inalienable right to make informed decisions
- Citizens can only make informed decisions through unimpeded access to information

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