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Reuse and repurpose: the life story of an (open) educational resource

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Abstract

This paper relates the life story of a particular educational resource (and its lead author) that went from being closed to open and which exemplifies the value of reuse and reworking of educational resources in both arenas. It describes how the educational resource was itself a reworking of previous resources and has now been reworked and reused in a number of other settings, both closed and open. It also shows the amplification and networking effects of open educational resources.

Keywords

Open educational resource, reworking, reuse, networking, life story

Prologue

Once upon a time there was a Systems department created in 1972 at The Open University in the UK by the founding Dean of Technology. He was keen that a Technology Faculty should deal with both disciplines of analysis (such as materials, mechanical and electronic engineering) and disciplines of synthesis (design thinking and practice and systems thinking and practice). This Systems department then set about creating a number of undergraduate modules for students to study, but being part of a distance teaching institution this involved embodying much of the teaching within bespoke educational resources such as teaching texts, audio recordings and television broadcasts (Lane and Law, 2011). Now the teaching of systems thinking and practice involves many things but two aspects in particular were not as easy to teach at a distance as others – namely diagramming and group work. So the modules also had an associated residential summer school where students from all over the UK and even further afield would come together for a week of intensive activities that involved hands on diagramming and group work.

Over the years the staff in the Systems department updated or replaced these modules in response to feedback from the many thousands of students who studied them, through using new technologies such as video recorders and personal computers to enhance the teaching and learning process (Bell and Lane 1998), by reflecting developments in the discipline itself and through new ideas brought in by new members of staff, such as the author, who joined the department in 1983. The author also gradually worked his way up to being Head of the Systems department in 1998 whereupon he undertook a review of the systems curriculum and how it was being taught (Lane, 1999). One issue that this review identified was that some basic systems principles and practices were being taught differently across the various modules and since students might be studying a module either as a one off or as part of different degree courses that there needed to be some common educational resources that introduced these basic elements across all the modules. Thus the idea of a set of three study packs dealing with major systems concepts, systems diagramming and systems modelling respectively was proposed and implemented.

A study pack is born

Thus T551 *Systems Thinking and Practice: A Primer* came into being in 1999 as the first of these three study packs that acted as a ‘common’ educational resource to be used across a number of separate modules dealing with systems thinking and practice. The study pack included a number of different items – a teaching text (Lane, 2002), an audiocassette guide to some text material and a CD-ROM of video material. However, as a primer on the subject the learning outcomes of the teaching text and AV material had first been planned and designed by a team of academic staff and then created by the author by re-using educational material drawn from over 25 years of use and experience on previous modules dealing with systems thinking and practice. Thus T551 was largely a ‘mash-up’ of materials that had been developed and used with students by at least 10 staff members over many years, materials that had been truly tested out as useful, plus new linking or supplementary material. This model of creating modules through teamwork is common in The Open University and a likely feature of the future collaborative development of open educational resources (Lane, 2011) as well as being a ‘within institution’ example of significantly reworking and repurposing existing materials. In fact the whole exercise of module redevelopment, of which T551 was but one part was used as a case study in a book on reusing online resources (Littlejohn, 2003 p 110-111).

The study pack grows up: Reuse and repurposing behind closed doors

As this study pack was used on 3 separate modules for the next few years it was seen and studied by at least 7,000 students (note that a precise figure is hard to determine since the same student may have studied only 1 or all 3 modules).

In addition this study pack was available to buy from The Open University for use by other institutions or by individual learners, with sales having reached nearly 3000 since first being launched. On top of this the ‘host’ modules had also been licensed for use from The Open University by other. A good example of licensed use is by the Arab Open University, an international partner of The Open University, which has incorporated a version of a parent module to the T551 study pack, T205 *Systems Thinking: Principles and Practice* into a Business Studies degree and so has also used T551¹ with a few thousand students.

However, this was not the only ‘closed’ reuse of this reworked and repurposed educational resource. It was also used on an internal Open University staff development programme on problem solving called PERSYST² and so has been used by several hundred Open University staff over a number of years.

The study pack leaves home: how it has fared in an open world

When the author became the founding Director of OpenLearn at The Open University in 2006 he chose part of T551, following the principles covered in Lane et al. (2009), as being suitable for open publishing under a Creative Commons license in 2007 (see Figure 1 and <http://openlearn.open.ac.uk/course/view.php?id=1289>). Since being published on OpenLearn’s LearningSpace this open educational resource has been regularly viewed in situ by 32,329 unique visitors as of January 2012 (in comparison, from 1 December 2011 to 8 January 2012 this figure was 4100 unique visitors, indicative of the fact that monthly visits have grown since the early days and a figure

¹ See http://e-class.ws/T205A_syllabus.pdf

² See <http://pharos.blogs.com/files/armson.pdf>

which also placed T551_1 as the 76th most popular study unit of 645 study units in total that were available that month).

Figure 1 a screenshot of the front page of the OpenLearn study unit



As well as viewings by browsing visitors the study unit has been downloaded in a variety of formats (Table 1) as well as being rated and reviewed by 13 and 11 users respectively on the site itself (with a rating of 5 stars and 45% being very satisfied with it and 91% finding it very interesting).

Table 1 The number of downloads since publication by format type for the OpenLearn Study Unit T551_1 Systems Thinking and Practice³

<i>Download format</i>	<i>Number of downloads</i>
Unit Content XML	80
Unit Content RSS	1147
Print	330
Common Cartridge	169
Content Package	66
Moodle Backup	80
Plain Zip	217
OXML	18
SCORM	31
Epub	32
Word document	90
MP3	0

³ NB Not all formats have been available for this whole period with the last 3 only available since mid 2011.

What is striking about the figures in Table 1 though is the relatively high download rate compared to the viewing rate and raises questions of what people are using those downloaded versions for.

However a feature of such openness in the way the open educational resource can be taken away is that it is very difficult to discover why and how these people might be viewing and/or downloading this study unit or what they think of it. One way to check is if it appears or is mentioned on another website which can be picked up by web searches. Nevertheless most mentions of the study pack on the web appear to come in referral sites such as the **learningexchange**⁴ or the systems wiki⁵ or learning for sustainability⁶. But the author has found one example where T551 has also been reviewed and accepted as well as referred to. This is on the Temoa website run by the Tecnologico de Monterrey in Mexico in 2008, where a member of staff decided to submit it for inclusion and review and subsequently the study unit has now seemingly been incorporated 'as-is' into 3 courses they offer (see Figure 2). And as part of that exercise there have been 96 reviews of it in Spanish (one of the highest number of reviews on the site with an overall rating of 4.5, which is also one of the highest ratings of open educational resources on the site.

Figure 2 Screenshots from the www.temoa.info website showing the overall rating and some individual reviews of Systems Thinking and Practice



Epilogue

An academic author is always pleased to see how well their educational materials are rated and how much they are used by others. In the case of this resource it can be seen that it was already the product of reuse, reworking and repurposing even when it was a closed resource, albeit at a University which teaches and reaches larger student audiences than most. However by making it open the resource is now being seen and valued by even more people all around the world who are hopefully reusing, reworking and repurposing it for new situations and contexts through diffusion and adoption processes (Van Dorp and Lane, 2011). Through this openness the open educational resource is providing new connections and networks between the creators and users (Lane, McAndrew and Santos, 2009) that they may want to exploit in some

⁴ See <http://lx.iriss.org.uk/content/systems-thinking-and-practice>

⁵ See http://www.systemswiki.org/index.php?title=Systems_Thinking

⁶ See http://learningforsustainability.net/social_learning/systems_thinking.php

way in future collaboratively or collectively (Lane, 2011). This process can also extend the life of good educational resources with some of the material in T551 dating back to the 1970s. So everyone is living openly ever after.

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