

## Repositories - local

### 1. Are there any formal mechanisms for sharing resources in your institution?

The only formal mechanisms in place at South Hunsley School to share resources is the network drives that are assigned to all users of the school network when they log on. Many departments have write access to their own folders within this network drive, and will manage the resources they upload there themselves. We have set up a staff only folder within department areas for about 50% of departments, so that they can share confidential material between members of the department. The issue in using network drives as the primary form of resource sharing is that they are not accessible from outside of the school network. We have put a virtual learning environment in place at school, that all staff and students can access from anywhere in the world via the Internet. The virtual learning environment is being used to share resources to staff and students that are in a finished state and are useful for students to be able to access from home. Departments all have a staff only area on the virtual learning environment too, which can be used to store confidential or unfinished resources. Each system has its benefits and weak points. The main benefit of the virtual learning environment, is that the materials can be accessed from home, and statistics of amounts of access to each resource are readily available to staff. The main benefit of the network drive solution is that the files can be worked on and saved in real time. For example, a department might want a spreadsheet for all members of staff in that department to record information about students progress. In the virtual learning environment model, members of staff would have to download the spreadsheet, make their amendments, then upload it to the VLE again. In the network drive environment, members of staff can open the spreadsheet from the drive, work on, save their changes then close the file.

### 2. Does your institution have a stated position on how it would like to see sharing of learning resources develop? (Look at the institution's teaching and learning strategy and/or elearning strategy.)

The school does not have a stated position on the sharing of learning resources. There is a push for all departments to utilise the virtual learning environment for their courses, and the Director of Key Stage Four, is making it a requirement that all KS4 subject areas have revision materials available to students before the Easter holiday. At the school we have recently moved away from shared log-ins to the network, and from departmental log-ins. Departmental log-ins used to be used for teachers to share resources within their home areas. The move away from this situation was a matter of security and traceability on the network. However when it was first introduced, it did cause concern for staff as to how they could continue sharing resources as before. To solve this situation I set up the staff only areas within the departments area on the network drive. This has proved successful, and allows staff to work on the same resources without sharing their log-in information. There is no e-learning strategy in place at the school, but it is part of my new role of Director of ICT

to develop these strategies in line with the school's Teaching and Learning strategy, and also too ensure that the school's ICT infrastructure can support these developments and requirements. There is a general push in the school towards embedding ICT into all areas of the curriculum, in line with the DfES's recommendations. The use of ICT is now a point that is assessed in all teachers in their performance management, and also assessed on a department level by Senior Leadership and OFSTED.

3. What informal sharing of resources occurs in your institution? (This might require you to ask around as by its nature it is likely to be invisible) Do your findings support or contradict the findings of the Report on Personal Management Strategies (Margaryan, 2006) which can I've uploaded to Blackboard?

There are some departments where a lot of resource sharing takes place. The most prolific departments for this at school are the mathematics department and the Science department. Incidentally, both of these departments have the most active areas on the VLE. In both of these departments there are members of staff developing various digital materials with a variety of software packages. For example, in the mathematics department, one member of staff has achieved a scholarship for his resources, and not only shares them within the institution, but also travels to other schools to show them the resources and share them with them too. In other departments where sharing of resources is not so commonplace, there often appears to be a large amount of duplication of resources. There is often a culture of keeping resources to yourself, as if sharing them would devalue the time and work that the individual had put into making them. This attitude does seem to be changing, but for some teachers, change is hard work and slow too. The use of ICT within subject areas is on the increase, but a lot of departments have only just got ICT access in their classes and a large number of department areas still have very limited access to projectors and interactive whiteboards. Those departments with the least access to ICT, are often the departments where the least resource sharing takes place. As the departments begin to use ICT more in their lessons, and begin to utilise the VLE at the school, the amount of resource sharing should increase. However there are some departments that do not fit into this model of ICT access and resource sharing. The ICT department at the school is one of the worst at sharing resources, and often each teacher will have a copy of the same or similar resources stored in their own home area on the network. This attitude and behaviour has developed over time, and from the perceived differences in teaching manner by the teachers of ICT at our school. This department was also one of the slowest to take advantage of the VLE at the school, and are still well behind an awful lot of the other departments at the school, in terms of access to their areas of the VLE and amount of resources uploaded. Interestingly, the ICT department probably has the highest average age of teacher out of all departments in the school.

In relating my findings at South Hunsley School to the findings in the report on Personal Resource Management Strategies (Margaryan, 2006) I found a few areas that support the

reports findings, but a lot more areas that contradicted the report. For example, the results on where people stored and backed up their work matched in our institution, however the report found that the most common resource type was PowerPoint presentations but at our school, Word documents are by far the most common resource type. The results of the report that VLE's are the most used place to deliver content to students, is also true in our institution. I agree with the reports findings that repositories and VLE's need to be linked. However I feel that staff may feel that having to put work on both the VLE and a repository was asking them to do even more work. The results of this report were very skewed by the audience that was targeted for the questionnaire, had the target audience been secondary teachers, I think we would have seen very different results. **There are a lot less national repositories for secondary education, and certainly none that I could find that were as developed as NLN or Jorum. Most staff in secondary education are only starting to fully embrace e-learning and the idea of distance learning at secondary level is certainly a lot more alien than it is at HE and FE levels. This may account for the lack of national repositories for secondary education.**

#### **Repositories – national such as Jorum and NLN materials**

Explore a national repository and make an assessment of it in terms of

4. its size,

I explored the National Learning Network's repository (NLN). It is a very large repository, and I do not think that I have been able to look through all of the materials it has to offer.

5. the range of subjects that it covers,

The repository is broken down into 18 main subject categories, and each of those categories may be broken down further. The repository covers a wide range of subjects, most of which are vocational subjects, like agriculture, business and catering. The repository is for FE and HE establishments, and as such is not usable by my institution.

6. the ease with which you can locate material

The repository is broken down into subject areas, as I mentioned earlier, which makes it easy to find resources that relate to your subject area. You are also given the option of a simple search box and an advanced search option. The advanced search gives the options of carrying out a full or partial text search and applying AND or OR Boolean search criteria. The combination of the directory structure and the search options available, make it very easy to locate resources.

## 7. the quality of the material

The material seems to be of very good quality, although not being a teacher of the subjects that are covered by the resources in this repository, make it hard to give an accurate assessment of their quality. The technical production level of all of the resources I looked at, was of a very high standard.

## 8. the style of the learning objects...are they similar in size and format?

There is a common feel to all of the resources presented in the NLN repository. They all have the same container and their navigation seems common across all resources. The time taken for each resource is also similar, each resource should last about thirty minutes. All of the resources are presented in Macromedia Shockwave / Flash format, which also gives them a very unified feel.

## 9. how effectively do the descriptions of the learning objects (meta data) describe the object?

As I could not download any of the resources available on this site, I could not view the meta data attached to them. However I did read the sites information on meta data. The meta data that they attach to their Learning Objects is based on the 1.1 IMS Metadata Spec. This specification should ensure that all LO's are fully indexed by their metadata alone.

## 10. who can send material to the repository? And how is the material quality controlled?

There are strict access rights to the material and only certain people from each college can download, let alone upload material onto the repository. The resources are developed by specifically commissioned developers. You can apply to become a developer for the next round of resource development, but there are no guarantees that you would be successful. The quality control of the resources is maintained, firstly by selecting only proven developers to make the content, and secondly by employing a team of Quality Assessors to check the resources before they are made available. You can apply to be a member of this team, but you have to be a tutor at a college, and be teaching one of the topics that they are currently developing resources for. The final level of quality control is that the resources are sent to trial colleges before they are fully released, give students a chance to feedback into the development process.

## 11. can you find examples of different pedagogical styles eg constructivist principles such as activity based learning objects, cognitive based eg with clear structure to the learning and initial diagnostic of student's knowledge, eg behaviourist with rewards for getting the answer correct.

There was a variety of pedagogical styles represented within the resources available. In the

documentation about submitting work to the repository, there is also information about their pedagogical criteria for resources submitted. The resources were wide ranging and I found LO's that were certainly made from a behaviourist and constructivist slant. There were resources that comprised of quizzes at the end of the information. If you answered the questions correctly, you were congratulated on your efforts. This type of resource is an example of behaviourist styles.

12. Material created for a particular context is often embedded in that context. For instance a PowerPoint file might have a final slide "Don't forget to hand in your assignment on 21<sup>st</sup> October" and this makes it unsuited for other people's context. What issues of embeddedness did you come across in creating and reusing learning objects?

Personally, I did not encounter too many problems with embeddedness in the resources I used. However, whilst searching for resources, I did find plenty that had various embedded content that would not be in context. With most resources, it is fairly easy to remove the embedded content, e.g. Delete or modify a slide in PowerPoint or edit the HTML of a web page. However with the resources that were being presented in the NLN repository, any embedded content would be a lot harder to remove, as all the resources were Shockwave presentations, that would have to be completely remade to change any of the content. I think that unsuitable embedded content would only be an issue if you were re-using a resource in the exact format you had found it. However most teachers I spoke with tend to adapt and modify a resource before they use, thus ensuring that any inappropriate embedded material is no longer present. There are some teachers that will just reuse a found resource without modifying it at all, embedded out-of context information would certainly be an issue for these teachers. One teacher commented to me, "There are two types of teacher; those who quote or use resources verbatim and those who re-appropriate them for their classes."

## Copy right

13. Creative commons what does it mean?

Creative Commons was born out of an ideology similar to that of the Open Source movement. The basis of the Creative Commons licence took its inspiration from the Free Software Foundation's GNU GPL licence. The underlying idea and drive behind the creative commons licence, is to provide creators and authors of any type of material, the ability to release their material into the public realm and still maintain some control over it. The creative commons organisation has set up a website, <http://creativecommons.org> where authors can choose the type of licence that best suits their requirements of copyright and distribution, then generate a legally binding copyright statement that can be distributed with that resource. This licence details the exact rights that the general public has over the resource, and what, if any, recognition must be made to the original author. The organisation is trying to help creators distribute their work freely to the general public,

whilst still allowing the author / creator to gain recognition for the work they produce.

14. Who owns the IPR, intellectual property rights, of material created by people in your institution?

All work produced at our school, remains the property of the school. However most teachers thought that they would hold the copyright for the work they produced. I have asked the Human Resources assistant to look into the issue of whether this is explicit in staff contracts or not.

15. Discuss how copyright affects the resource that for Part 1 of the assessment in this module. Does IPR prevent you from contributing this resource to a national repository?

The resource I have developed for part one of this unit, is unaffected by copyright, as it was downloaded from a freely available website, with no copyright constraints put in place. The resource did feature a link back to the website it was made available on, so I left this link intact at the bottom of the page on my remade resource. I also contacted the website owner to clarify their position on copyright, as it was not explicit on the website. The reply I received said that all resources posted on the web site were free for any purpose, and their stance was that any thing that enhanced education should not have a price attached to it. This is a very noble sentiment, however there is often the need to impose some level of constraints on the use and re-use of materials. This is, I feel, where the ideas of Creative Commons will really be of benefit in the education sphere; allowing teachers and educators to create high quality resources, distribute them freely amongst their colleagues, but still gain the recognition they deserve for the work put in.

## Standards

16. What are the common attributes of a learning object?

The common attributes of a learning object are the method in which it needs to be delivered, the format that it takes, the environment that it requires and the copyright concerns of the object.

17. Why is there a need for standards? What do IMS, SCORM, Dublin Core offer us?

Standards are important so that information and resources can be easily transferred between institutions and environments. Without standards, we could not be sure that a resource we had created would look the same, or worse still, even operate in another environment. IMS and SCORM are two attempts at standardising digital learning objects. They are both very successful and SCORM is now taken as the standard method to describe and construct cross platform DLO's. Most VLE's support SCORM packages, and by adopting

the SCORM model, a VLE can import resources built to this standard and ensure that the results of a student's attempts in a DLO will be correctly transferred to the VLE. Without this level of standardising, it would be nearly impossible to have resources that are usable in all VLE systems. Dublin Core is slightly different, in that it is a set of descriptive metadata rules that are intended to be used in describing all electronic information. They can be used as metadata to a simple web page, or could be metadata to describe a complex digital learning object. The recommendations of the Dublin Core project are far reaching, but as of yet have not been fully integrated into the standards of the W3 consortium. If such metadata standardisation was adopted, it would help with being able to effectively locate information on the Internet. The issue with searching, is that each search engine adopts their own algorithms to search the Internet, and guard these closely. With the current discussion about the semantic web and the development of human and machine readable web information, it may not be that long before such high level standardisation of metadata is incorporated into the W3's web standards.

#### 18. How should LOs be described? Why is this important?

Digital Learning Objects should be described with at least the following amount of information according to the recommendations set out by BECTA:

- title
- catalogue entry
- language
- description
- keywords
- aggregation level
- version
- status
- contributor
- format
- location
- requirements
- installation requirements
- platform considerations
- duration
- learning resource type
- interactivity level
- learning context
- difficulty
- typical learning time
- cost

- copyright
- purpose

This is a long list of requirements for metadata to contain, but if all DLO's conformed to this schema, then the ability to search and locate the resources required for a certain purpose would be a lot easier.

## General

19. In your view, what are technical, organisational and cultural barriers to getting up a repository in your institution. Discuss which of these are likely to be the main issues in your institution.

The main issue to getting a repository to work in our school would be the cultural issues of getting people to share their resources and also the view that it was creating even more work for the teacher. I am sure that would be some teachers who would adopt the system and make good use of it. However for every two teachers that did contribute to the system, I think there would be ten who would just use it to copy others resources, rather than contributing their own resources to it as well. This would then just increase the feeling in the staff who did contribute, that why should they do more work so other staff can do less. I do not perceive any technical issues in having a repository running at our school, as we already servers in place that easily run the software required. I can see no issue from within the organisation to having a repository running, as senior leadership take my recommendation on all technical developments in the school. So if I were to recommend that a repository would be a useful thing in our school, I am sure that I would get the clearance to implement one. The only opposition I can imagine may be from the Union heads, in terms of the teachers workforce reform agreements.

20. In your view what are technical, organisational and cultural barriers to use of national repositories by staff in your institution.

Again, I think that main issue to using national repositories in our school are cultural ones. That and the fact that there are hardly any secondary based national repositories available, and if there are, they not very well advertised or promoted. There are a few subject specific repositories available, and some of our staff do already use these.