
Open content for management education – an innovative approach by OpenScout



Cecilia Loureiro-Koechlin
Research Assistant
School of Information Systems
Computing and Mathematics
Brunel University
+44 (0) 1895 265937

Email: cecilia.loureiro-koechlin@brunel.ac.uk



Uta Schwertel
Senior Research Manager
IMC Information Multimedia
Communication AG
Email: uta.schwertel@im-c.de

CONTEXT

Only a few years ago (in the 1990s), the creation of content over the internet was restricted to those who possessed the technical skills to program in HTML and similar. With the development of Web 2.0 non-technical users were given the tools to create and share their own electronic content easily. This kind of content is usually referred to as 'user-generated content' (UGC). In parallel, movements such as 'open content' and 'open access' have been evolving to encourage a new paradigm for content creation and use. In this new paradigm, access to information (particularly educational, academic and scientific) is unrestricted and with few constraints as to use and re-use.

With the growth in popularity of UGC millions if not billions of sources of content have been created. This content has been produced for different purposes and in different contexts. Nevertheless, the origins and quality of these resources is often questioned. In many cases it is the task of the reader to assess the quality of the content s/he is accessing. Institutions and groups of experts (i.e. higher education, online communities, etc.) have

latterly been working to resolve this by making sure that the content they provide is of sufficiently high quality. In addition, thanks to Web 2.0, quality control is exercised by communities of users through their comments, ratings and recommendations. These developments allow the creation of trusted sources of content such as institutional repositories, open access online journals and Wikipedia.

Efforts such as these are particularly important in the educational sector, where institutions, educators, librarians and software and content providers work together to provide good quality content to learners. For example, nowadays teachers and lecturers create digital learning material to be used in combination with online learning environments such as 'learning management systems' and 'course management systems'. This material can be in different forms, for example Word documents, PowerPoint presentations, video clips or simulations (games). With the propagation of new Web 2.0 tools in the education sector and with more educators joining the UGC movement, more of these sources are being developed all the time, and the need arises to provide some order and structure in this sea of content. It is essential to promote appropriate sharing and re-use of content, as well as to establish quality standards for learning materials.

Although educational content is more readily and easily available than before, users have difficulty finding the resources relevant to their immediate needs. By users we mean both educators and learners in traditional and non-traditional realms (for instance professional development). The problem arises mainly for two reasons. On the one hand, some of the material is stored in institutional repositories and cannot be accessed by common search engines. On the other hand, the material is abundant. Where should we look for teaching or learning materials? It is like looking for a needle in a haystack. To help users find their own 'needle', specialised ways of searching for open educational material are being developed worldwide. In addition, information about these educational resources (metadata) is also incorporated in the entries to facilitate searching.

OPENSCOUT

In this paper we present an account of the use of open educational resources (OER) in the fields of management and business education. This account is based on an initiative by the OpenScout project,¹ which is building the OpenScout portal

<http://learn.openscout.net>.² This portal is a federation of digital repositories for open management content. Through OpenScout, users can easily access content (also called learning objects) held in repositories across Europe and beyond. The OpenScout portal is free and can be used not only by learners and students directly, and by teachers and lecturers to enhance their courses with free materials, but also by librarians and documentation experts who identify, search and localise relevant information and who provide this service to teachers, lecturers and students.

OpenScout brings together accessible, high-quality and heterogeneous resources, creating a multi-cultural, multi-language, cross-disciplinary environment. The project constantly adds more resources in order to achieve significant coverage of open educational management content developed in Europe. For reputable content providers and educational institutions, OpenScout offers an interface that automatically displays their content in the OpenScout portal. Individual educators can share or upload their resources directly through a publishing form. With this, OpenScout expects to become a trusted, central and unique point of access for most relevant open content in the management and business fields.

The portal adds extra value to content by organising and implementing a consistent metadata system across all resources accessed. In this way content originating in different digital repositories will have a uniform appearance.

Moreover, OpenScout domain experts³ add additional metadata to the resources in order to help users find resources that meet their needs. These additional metadata include management-specific domain categories and competence information. Examples of domain categories are 'econom-

ics', 'project management', etc. Competences are the skills needed to accomplish tasks in specific occupations, for example 'being able to operate technology effectively'.

By building on this consistent metadata system, OpenScout provides a comprehensive search facility designed around the needs of educators and learners at school or at work. This comprises a simple search where users can search for content by entering keywords.⁴ The search engine will search either across all metadata fields or across only a selection, e.g. author. Additionally, a filtered search allows users to narrow down the search results according to various criteria such as language, domain and competence. The competence services that OpenScout is implementing are particularly important to support competence-based approaches in education. These approaches offer opportunities to develop flexible programmes tailored to the needs of learners, trainers and potential employers. Competence-based learning addresses directly the need of individuals to upgrade their knowledge, skills and competences in a particular discipline throughout their lives, as required, for lifelong competence development.

Fig. 1 is an example of how an OpenScout search works. We used 'decision making' as the search term and filtered for resources in the 'management information systems' domain and for competences in the area of 'technology management'. In this case after reading, listening or watching any of the listed learning objects (see fig. 2) the learner is expected to 'be able to manage a company's technological fundamentals', particularly those relating to decision making. It is also expected that the learner will acquire a competence at a level relating to the resource selected (e.g. basic, intermediate, advanced). The compe-

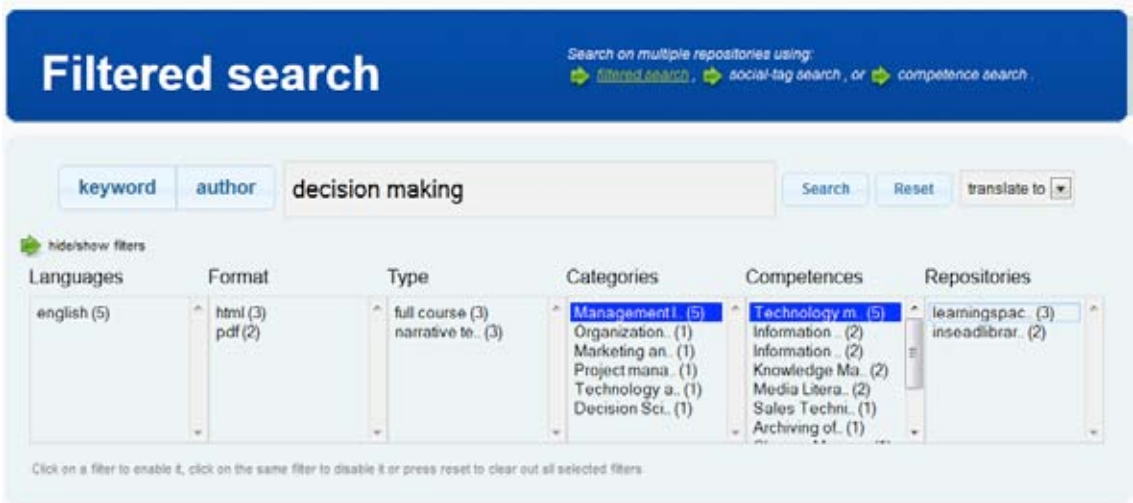


Fig 1 OpenScout filtered search

tence levels are shown when a user clicks 'find out more' on a particular learning object (see fig. 3).

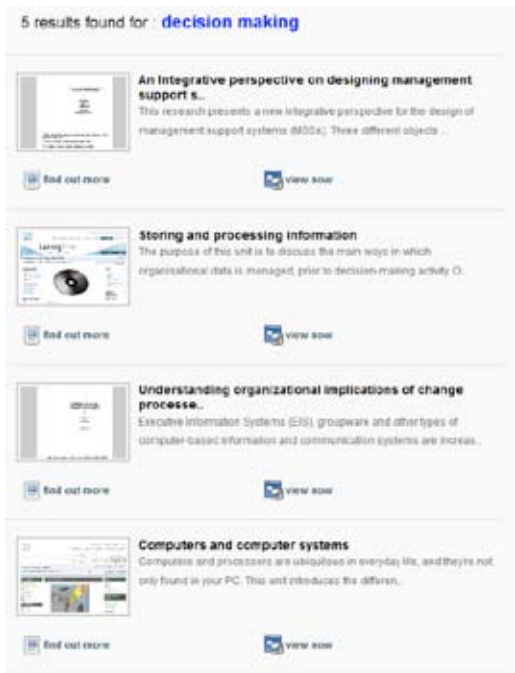


Fig. 2 Result: listing



Fig. 3 Content: detailed view

The OpenScout portal also provides users with a library of tools to create, adapt and re-publish open content.⁵ Users can collaborate in creating learning objects and interact (via social networks) or provide feedback to each other. In providing these resources and tools, OpenScout aims to foster an open-content community⁶ that advocates, among other things, the UGC, open content and open access philosophies.

The OpenScout services and tools offer benefits to a wide range of users, including learners, training and education institutions, librarians and other content providers. It helps users easily to find, access, use and exchange open content for management education and training. To give an idea of why and how one could use OpenScout, the following is a list of case scenarios, one or more of which could apply to you:

- A librarian learns about OpenScout and assesses the possibility of making material available from their institutional repository via OpenScout. By contributing resources to OpenScout the local repository would acquire visibility at European level. At the same time lecturers can embed OpenScout learning objects in their university's personal learning environment (PLE) system. This should be relatively straightforward as lecturers already know how to do this with their own repository resources.
- A librarian is asked by a lecturer to compile a list of online, free-to-use resources available about management information systems that she can re-use for her course. The librarian first checks databases that the university subscribes to, but many of the relevant resources are not openly accessible. The librarian extends his search through OpenScout and can offer the lecturer a list of well-rated open educational resources. The lecturer re-uses the recommended material for her course. Therefore, for the next training about online search facilities the librarian includes the OpenScout portal as a useful tool for finding open learning materials in the area of business and management.
- An SME employee is applying for promotion. To obtain it she has to demonstrate that she can put into practice various financial analysis techniques. To acquire this new competence she looks for resources in OpenScout. She uses the filtered search to look for resources with accounting and control competences.
- An SME is implementing new management processes. In order to prepare their staff, HR designs training courses. To organise these courses they use material from OpenScout.
- A college lecturer is preparing a new course. He uses OpenScout to look for material. As the material he finds needs re-contextualising (e.g. change language, change pictures), he uses OpenScout tools to adapt the learning objects to his specific needs. He finally col-

lates a module based on the adapted material and uploads it back onto OpenScout.

- University lecturers in the economics department use OpenScout to store and disseminate their own teaching material. They link and embed material into their virtual learning environment where the students can access them.
- Students look for extra material in OpenScout to study for their final exams. When they find something useful they share the resources with their friends on Facebook and Twitter.
- University students ask the departmental librarian to help them look for material to prepare an assignment and presentation. The librarian teaches them how to use OpenScout.

CONCLUDING REMARKS

New developments in technology allow innovative and creative ways to deal with educational material. The OpenScout portal is in the vanguard of this movement, promoting the use and re-use of open content: by providing a single point of access to a wide range of European resources, by implementing competence services (metadata and search) and by offering a wide variety of authoring and collaboration tools. We believe that librarians and information specialists in the business and management fields will benefit from the solutions offered by OpenScout. In their interactions with teachers and students, OpenScout's services can be very helpful in identifying, searching and localising resources for learners. The content that is currently offered has its origin in trusted sources in the mentioned fields such as material from INSEAD, the world's leading and largest graduate business school, in the Open University UK LearningSpace, which offers high-quality free online courses, in selected YouTube Edu channels or in trusted websites such as Reference for Business and 12manage.⁷ Moreover, the content has been enriched with metadata to facilitate search and use. Competence information in particular helps the user to select appropriate resources as it can be matched with the purposes of use and the knowledge level of learners. Social metadata such as tags and ratings added by registered users help to indicate the quality and appropriateness of learning resources. In addition, content is not limited to traditional static documents (e.g. Word documents or spreadsheets) but includes interactive material such as simulations and serious games.

Higher education institutions are increasingly following open content trends by implementing policies and methods for accessing learning materi-

als in their repositories, for example through their learning management systems. However, a large majority of them are lagging behind in their use of technology. Unfortunately in these institutions the quantity and quality of the materials offered vary considerably. It is therefore of great importance for OpenScout to promote the implementation of technologies and policies to facilitate the creation and use of open content of good quality.

We believe that OpenScout can help to promote UGC in the management and business fields. It is expected that the OpenScout portal will be fully implemented by summer 2012. However, it is already operative with the functionality discussed in this paper. You are welcome to visit us and try our resources.

NOTES

- 1 The OpenScout project is co-funded by the European Commission as part of the *eContentPlus* programme as a targeted project, grant ECP 2008 EDU 428016 (see <http://www.openscout.net/>).
- 2 At the time of writing this article the building of the OpenScout portal is still work in progress.
- 3 OpenScout consults domain experts: teachers, trainers, instructors and students at masters level in universities and business schools who work or study in the area of business and management.
- 4 OpenScout does not search inside content, only in the metadata.
- 5 For more on OpenScout sustainability and adaptation tools, see U. Schwertel, J. Pawlowski, A. Mikroyannidis & H. Pirkkalainen, 'Sustainability of open educational resources. Providing tools and services for adaptation: the OpenScout experience', in *Learning and sustainability: the new ecosystem of innovation and knowledge*. Proceedings of EDEN Annual Conference 2011 (19-22 June 2011), Dublin (2011).
- 6 Content is consumed and produced as part of communities' everyday participation. See more in D. Boyd, 'Understanding socio-technical phenomena in a Web2.0 era', Microsoft Research New England Lab Opening, Cambridge MA, 22 September 2008, available at <http://www.danah.org/papers/talks/MSR-NE-2008.html>
- 7 A description of repositories currently integrated into OpenScout is available at <http://www.openscout.net/repositories/>.