Incorporating quality assurance criteria for OER and Social Networking in the E-xcellence QA methodology

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Incorporating quality assurance criteria for OER and Social Networking in the E-xcellence QA methodology.

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Abstract: The E-xcellence QA methodology for e-learning (www.e-xcellenceqs.eadtu.eu) is securing wide recognition by European and international agencies. The methodology presents principles of good practice in six domains of e-learning. It can be applied to the design and delivery of e-learning in distance learning and blended learning contexts. It is supported by exemplars of good practice which were current at the time of its launch in 2006. The project team are currently engaged in a programme of revision and updating to address recent developments, in particular i) development and use of Open Education Resources (OERs) ii) the application of social networking tools.

The authors present a review of current approaches in relation to developments in Social Networking and Open Educational Resources (OERs) and discuss the consultation exercise currently underway with users of the current methodology. They will outline their proposals for the updated and revised methodology that will be tested in beta version from 10/2011-05/2012

Development of the E-xcellence project 2005-present

The E-xcellence project has been funded by the EU Lifelong Learning programme and managed by European Association of Distance Teaching Universities (EADTU). The objectives of the initial phase of the project, 2005-2006, were to develop and trial a methodology, associated handbook and resource materials for the quality assurance of e-learning at HE level. A project team drawn from EADTU’s member institutions together with representatives of NVAO (the HE accreditation agency for Netherlands and Flanders) developed a structure of six activity domains associated with the development and delivery of e-learning:

- 1 Strategic Management
- 3 Course Design
- 5 Student Support
- 2 Curriculum Design
- 4 Course Delivery
- 6 Staff Support

Within each of these domains there was a further elaboration of key activities resulting in a total of 33 benchmark statements. The project team identified key performance criteria and prepared a commentary that is presented in the associated Handbook and Guidance for Assessors.

The project team adopted a very broad definition of e-learning that is consistent the emerging usage of the term “technology enhanced learning” that
embraces the application of IT and other technological tools to the creation and support of student learning. Thus, though led from the distance education sector, the objective was to develop criteria that would be applicable across the whole of the HE sector and be independent of the primary mode of institutional operation. The resulting materials are available under Creative Commons license at  (http://www.eadtu.nl/e-xcellencelabel/)

It was envisaged that the criteria could be deployed in a number of ways to support programmes of formal accreditation and review by external agencies or processes of internal review or improvement. Amongst the tools available at the site is an online “Quickscan” evaluation questionnaire http://www.eadtu.nl/e-xcellencelabel/default.asp?mMid=3&sMid=9 that is designed to enable users to undertake an initial overview evaluation of their institutional policies and practice. Our user feedback to date indicates that this tool is highly valued as a mechanism for focusing attention on the relationships and interdependencies between departments and individuals that are inherent in the effective design development and delivery of e-learning programmes.

Further funding from EU enabled the E-xcellence plus project to undertake dissemination activities in the period 2008-2009. Collaboration with the European Association for Quality Assurance in Higher Education (ENQA www.ENQA.eu) provided the opportunity for more significant engagement with those responsible for accreditation and quality assurance.

In 2009 EADTU worked with European Centre for Strategic Management of Universities (ESMU www.ESMU.be) in undertaking a benchmarking exercise involving nine European Universities. The detailed outcomes were confidential to the participating institutions but information on the framework of the activity is available at http://www.esmu.be/projects/94-benchmarking-elearning.html.

Quality Assurance of e-learning programmes continues to attract the attention of Quality Assurance Agencies. The E-xcellence methodology and resources were considered, alongside other European initiatives, at an ENQA symposium held in October 2009. Chapters 4 and 5 of the workshop report provide direct user perspectives on the E-xcellence methodology and its application to specific contexts:

- Chapter 4: The Challenges for Quality Assurance Agencies - The Case of NVAO by Fred Mulder (NVAO)
- Chapter 5: Benchmarking e-learning in Higher Education Findings from EADTU’s E-xcellence+ project and ESMU’s benchmarking exercise in eLearning by Ebba Ossianilson (Lund University).

Our reflections on the current situation with respect to e-learning in higher education are that:

- There is a convergence in the methodologies and technologies used by distance teaching and face-to-face HE institutions.
- The majority of institutions deploy Virtual Learning Environments (VLEs) and provide their students with a blended learning experience.
The nature of blended learning varies with institutional/departmental context and mission.

Distance Learning institutions have strengths in the origination of learning materials.

Face-to-face institutions may focus on the student support aspects in their use of VLEs.

Institutions in both sectors face significant challenges in enabling their academic staff to fully exploit the potential offered by technology-enhanced learning.

It is against this background that the latest phase of the project e-xcellence next has been launched.

Current Activity

Since the launch of the project in 2005 there have been major innovations in both the general and educational use of online communication. The world of social interaction has been changed significantly by the widespread adoption of social networking services such as Facebook. In addition, the culture of open source software development has been extended into the educational world through the Open Educational Resource movement. The current versions of the E-xcellence criteria make oblique references to these as (in 2006) emerging trends, but clearly their growth and adoption warrant a more central and reasoned treatment in any set of e-learning Quality Assurance criteria.

The E-xcellence Next project is a full revision of the criteria and associated handbook and exemplars. In the project we have distilled the essence of best practice in e-learning without specific reference to particular technologies. It is our intention to extend this approach to coverage of social networking and Open Educational Resources. Is there a need for new criteria that specifically address aspects of the use of these facilities/resources or can we best serve the needs of the community by adaptation of existing criteria and good practice notes? We are reviewing current practice and consulting with the E-xcellence community on the use of Social Networking and Open Educational Resources. The analyses that follow were used as introductions to discussions at a European Seminar on QA in e-learning held at UNESCO Paris in June 2011. http://www.eadtu.eu/e-xcellencenext-meetings.html.

Social Networking

The educational use of forums, blogs and wikis was well established at the time the E-xcellence criteria were authored. Virtual learning environments (VLEs) provide these tools as part of the package of facilities offered. They features in criteria relating to student support and to staff support.

The adaptation and popularisation of social networking facilities has led to a focus on sites such as Facebook, Twitter, and LinkedIn, as representing the current public interpretation of what constitutes social networking.

Social networking has two primary purposes in education:
facilitating learning
building community

Currently exploration of social networking in education has tended to focus on the community aspects, which can be supported via openly accessible services such as Facebook and Twitter. These tools can facilitate connections among students and teachers, and provide vehicles for interaction. But what is the nature of educationally successful social networking interactions and how are they created and managed?

University education has its origins in the creation of communities of scholars free to exchange and develop ideas in an environment of trust and openness. Participation in an active online community of students and teachers should increase student motivation and progress, but to maximise benefits teachers need to do more than simply make available the social environment.

Learning activities designed to be facilitated and supported by social networking interactions should enhance learning. This can help redress criticisms of distance learning as a passive text-focused study experience that leads to acquisition of “inert knowledge” that students can reproduce but not use.

The underpinning tools that can be used to deliver these pedagogic capabilities include:

- Forums - to support discussion and debate.
- Wikis - to support co-creation of resources.
- Blogs - to support reflection, sharing and feedback.
- Social network sites - to support a sense of community.

Social networking services enable group work to be carried out a distance. In a world in which employers increasingly demand evidence of graduates’ capabilities to work effectively in teams, tools that support collaboration, peer assessment and assessment of an individual's contribution to group work are of vital importance. Distance education institutions have previously faced significant challenges in implementing assessed group work, but the tools and protocols of social networking are now being deployed for this purpose. The authors have experience of implementing assessed group work via online media in UK Open University modules (see, for example Kear, 2004, and Rosewell 2009).

Pedagogic design should address the use of both asynchronous and synchronous communication tools. Asynchronous tools such as blogs, wikis and forums capture the “story line” and incremental contributions to group development. Synchronous tools such as chat, instant messaging, web conferencing and virtual worlds emphasise that communication is between real people rather than machines. The relative emphasis on the use of these tools will vary with institutional and module/course context, hence Quality Assurance criteria should not be prescriptive on either particular technology or proportion of use.

Many educators are keen to use social networking sites with their students partly driven by the concept of the “digital native” argued by Prensky 2001. He
proposed that the generation of students born since the early 80s have highly developed skills in the use of communications technologies, and that this generation expects to deploy these skills in their education. Whilst more recent work by Jones 2010\textsuperscript{vi} counteracts the idea of a homogeneous generation of digital natives there is nevertheless the challenge that the majority of academics are less accomplished in the use of social networking media than their student body.

Whilst the core tools are available in VLE systems there are attractions in using public social networking sites, many students use them already and they are seen as more social, informal and flexible. However their use raises issues of privacy, lack of control and the blurring of the distinction between social and academic life. At the superficial level academics must guard against the risk of their use of Social Networking sites being the educational equivalent of “dad dancing” (Lovatt 2010 \url{http://dancedrdance.com/DadDancing.aspx}) but much more significant are the legal risks associated with breach of privacy and data protection.

Kear 2011 \textsuperscript{vii} provides a suite of case studies of the educational uses of social networking.

For distance education institutions there is the attraction of using Social Networking to replicate the social dimensions of campus life, coffee bar discussions etc. Our own institution pursues a dual track approach of fostering the integration of online community activity for pedagogic purposes and assessment through our MOODLE VLE system but also maintaining an Open University presence on Facebook, YouTube etc that can act as a focus for informal student activity. Additionally the OU is developing a social networking environment Sociallearn specifically tailored to meet the needs of networked learning communities \url{http://sociallearn.open.ac.uk/welcome/}.

The challenge is to capture the essence of the pedagogic uses of social networking in Quality Assurance criteria that are non prescriptive and do not favour particular technological solutions. It would be presumptuous to state that we need to capture the “eternal verity”, but equally the pace of development in QA of Higher Education is somewhat slower than that of the consumer-driven use of social networking systems An E-xcellence benchmark statement relevant to social networking, as published in 2006, together with its supporting text follows. Do recent developments in social networking render its content redundant?

\textbf{Benchmark Statement:}\n\textit{The expectations on students for their participation in the on-line community of learners are made clear both in general terms and in specific parts of their course or programme.}\n
\textbf{Commentary} Creation of on-line communities of students is important as it reduces the isolation that may be experienced by many on-line learners. Institutions must identify those "community centred" activities that are essential to the achievement of course objectives and those activities that are essentially social in nature\n
\textbf{Indicators}\n\textit{The institution is committed to enabling the establishment and proper functioning of communities of e-learning students via its VLE or other online communication tools.}\n
\textbf{At excellence level:}\n\textit{This functioning supports:}
1. Learning interaction between individuals and groups
2. Social interaction between students
3. Feedback on students' experiences of their programme.
   This makes use of synchronous (face-to-face, telephone or video conference, whiteboard, etc) and
   asynchronous (discussion forum, e-mail, etc) interactions as required.

Open Educational Resources

Open Educational Resources is a banner term for the emerging practices which are the educational counterpart of the open source software movement. One definition of OER comes from the OECD: ‘digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research’ (OECD 2007). Well-known institutional projects, such as MIT Open Courseware (ocw.mit.edu) and The Open University OpenLearn (www.open.ac.uk/openlearn), and collaborative projects such as Connexions (cnx.org) and Jorum (www.jorum.ac.uk) have formed the backbone of the OER movement and now provide large repositories of educational material. Beyond the focus on content implied by the OECD definitions and these well-known repositories, there is also an emerging culture of Open Educational Practice (see OPAL http://oer-quality.org/) which includes other ideas such as Web 2.0 technologies, social networking, and the co-construction of knowledge.

Such broad definitions of OER combine with a variety of use-cases (see Table 1 to impinge on many aspects of e-learning and thus on QA processes.

<table>
<thead>
<tr>
<th>OER USE CASES</th>
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<tbody>
<tr>
<td>Individual life-long learner finding material for self-study</td>
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<tr>
<td>Individual teacher obtains assets to use in own material</td>
</tr>
<tr>
<td>Course uses podcasts from iTunes U</td>
</tr>
<tr>
<td>Course uses a 10-hour unit from OpenLearn or similar repository</td>
</tr>
<tr>
<td>Entire 100-hour OER module reused, with new assessment</td>
</tr>
<tr>
<td>Course and assignments in OER; tutorial / marking / accreditation offered for fee by HE institution</td>
</tr>
<tr>
<td>Consortium develops material for own use but ‘frees’ it</td>
</tr>
</tbody>
</table>

Table 1 OER use-cases emerging from EADTU/ENQA/UNESCO workshop Paris June 2011

The E-xcellence project has focused on student experience of e-learning rather than the specifics of the technologies used. Arguably the same stance should be adopted with respect to learning materials, whether traditionally published or open sourced. However as there is still significant diversity in the routes through which OERs become available to potential users there remains a need to consider emergent OER QA systems.

Those contemplating the use of OER are most likely to consider resources available from an existing repository. Figure 1 presents how, in practice, quality measures arise in several ways around current repositories.
Figure 1: OER Repositories and quality measures

The repository may function analogously to conventional publishing, with peer review acting as a quality check on submission to the repository. In others, there may be no gatekeeper: anyone may upload material but user reviews and voting act as a recommendation system for other users. Additionally, the provenance of the material from individual author or institution carries with it an associated reputation or 'brand'. Thus a user of an item from an OER repository may form judgements on its quality from several avenues. Current practice varies by repository, some operate rigorous gatekeeper processes others are more liberal at acceptance stage and emphasise feedback from the user community.

The Use Cases illustrate the possible range from discretionary use by single academic to extensive institutional use of entire modules, the quality assurance process may vary with magnitude of intended use.

Some quality dimensions of individual OER items would be largely familiar to any educator: content (accuracy, currency, relevance...), pedagogical effectiveness (learning objectives, prerequisites, learning design, assessment...), ease of use (clarity, visual attractiveness, navigation...). However, OER resources have other specific technical dimensions that do not arise in conventional materials: those of reusability and openness (Table 2).

<table>
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<tr>
<th>Reusability &amp; openness:</th>
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<tr>
<td>Format: conformance to standards, file formats (e.g. use of XML or PDF)</td>
</tr>
<tr>
<td>Localisation: ease of adaptation to other languages, cultures, or contexts</td>
</tr>
<tr>
<td>Discoverability: metadata, tagging</td>
</tr>
<tr>
<td>Technological barriers: bandwidth, software requirements</td>
</tr>
<tr>
<td>Interoperability: ease of reuse in different software environments</td>
</tr>
<tr>
<td>Accessibility: to users with special needs</td>
</tr>
<tr>
<td>Digital preservation: likelihood of continuing access over the long-term</td>
</tr>
</tbody>
</table>

Table 2 Quality dimensions for reusability and openness

These dimensions would not be surfaced by an evaluation from a learner point of view but emerge when the OER item is considered as a reusable learning object. They thus are important for the creation of new OER material.
and advocate widespread institutional use. Which of these factors is it appropriate to include as indicators or benchmarks in the E-xcellence NEXT framework?

The underlying concept of OER is increased capability through interchange of resources and in such a system an institution can expect to be both an exporter and an importer of resources and its QA processes should cater for both. Work undertaken by the OPAL project group offers guidance to institutions and presents a maturity model that indicates performance levels associated with a progression from exploratory engagement with OER through to extensive usage supported as a matter of institutional policy. ix

OER and E-xcellence NEXT

The creation and use of OERs did not figure at all in the 2006 benchmarks and manual. Such is the pace of change that the Open Educational resource movement, by promoting the sharing and reuse of e-learning materials, now presents significant opportunities for the delivery of e-learning without the initial costs of developing bespoke materials. We expect that the quality assurance community will meet increasing use of OERs in the future.

The 2006 benchmarks did contain benchmarks, indicators and commentary related to collaborative ventures between institutions and it is perhaps in the collaborative domain that the transactions associated with mature institutional policy on OER are best addressed.

Current Benchmark Statement:

4. When e-learning involves collaborative provision the roles and responsibilities of each partner should be clearly defined through operational agreements and these responsibilities should be communicated to all participants.

Indicators:

All collaborative ventures are formalised through contractual relationships.
Service level agreements are in place for all collaborative arrangements.
- Clear reporting lines exist for all those employed in collaborative ventures.
- Contingency plans to protect student and institutional interests are in place for each collaborative arrangement.

At excellence level:

A risk analysis is conducted on each potential collaboration

Commentary:

The infrastructure and developmental costs of e-learning may create circumstances in which collaboration with other institutions provides an attractive route for the development and delivery of e-learning

The development of collaborative ventures, whether initiated through top-down or bottom-up processes should be formally agreed and ratified prior to the course design stage. Contractual arrangements between the collaborating partners should define the scope of the collaboration, the responsibilities of partners, financial arrangements and the relationships with third parties particularly students and teachers.
These can be generalised to take account of the new opportunities provided by OERs and social networking sites. Instead of a narrow focus on collaborative ventures, a more inclusive approach which covers all use of resources and services from outside the institution is proposed. The emphasis on contracts and service-level agreements has been downplayed since it is not appropriate to the open source world. However the need for risk analysis and contingency planning remain, whenever external services and resources are used. Conversely, the understanding and management of intellectual property rights, privacy, data protection, accessibility and other issues become of particular importance when e-learning straddles boundaries between one institution and other providers.

Revised Benchmark Statement:

6 When e-learning involves activities beyond the institution, the roles and responsibilities should be clearly defined and communicated to those concerned, and controlled by operational agreements where appropriate.

Indicators:
- Collaborative ventures are formalised through contractual relationships and service level agreements are in place for these.
- Any use of social media takes account of accessibility and privacy issues.
- The institution should have processes for managing rights in the development and use of OERs

At excellence level:
- A risk analysis is conducted on all initiatives involving third parties and contingency plans to protect student and institutional interests put in place.

Commentary:
The infrastructure and developmental costs of e-learning can be significant. This may be mitigated by collaboration with other institutions or by using external services and resources to develop and/or deliver e-learning.

Collaborative ventures between institutions should be formally agreed and ratified prior to the course design stage. Contractual arrangements between the collaborating partners should define the scope of the collaboration, the responsibilities of partners, financial arrangements and the relationships with third parties, particularly students and teachers. All collaborative ventures should be subject to risk analysis, and contingency planning should be in place in the event of the collaboration breaking down.

Another collaborative approach is the use and/or development of open educational Creative Commons licences are a widely understood rights framework for both provision and use of material or resources (OERs). Sharing and reuse of e-learning material in OER repositories can mitigate the cost of development. The institution needs to understand and manage digital rights in this context; the

Institutions can also use public social media, such as blogs, wikis and social networking sites, to support learning and build community. If this approach is adopted, issues which need to be considered include accessibility, privacy and the boundary between academic and social life.

We expect there to be other benchmarks and indicators in e-excellence NEXT that take account of the growing use of OER. We anticipate that these will impact particularly at the level of course design and possibly at the level of curriculum design, together with more tangential reference in other sections such as staff support. Our preferred approach is to retain the generality and
agnosticism’ of the current benchmarks, wherever possible casting them in a form which is neutral to the technologies used.

Future work

We are currently engaged in ongoing consultation with the e-xcellence community but equally invite input from others with interests in this field. Our objective is to prepare a beta version of the revised benchmark framework and commentary notes during the Autumn of 2011. Our project schedule allows for trialling of the revised framework with our partner institutions in E-xcellence NEXT culminating in a series of national workshops during Spring 2012 at which we will secure feedback from institutions and national agencies with interests in Quality Assurance of e-learning. It is anticipated that our final revised version will be published in late 2012.

Acknowledgements

We acknowledge the inputs of numerous colleagues associated with the e-xcellence project and at the Open University who have helped shape our analyses. Project is funded through the EC Lifelong Learning Programme.

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