The Impact of Community Engagement in Teaching and Learning Repositories

March 2011

Patrick McSweeney[1] Charlie Hargood[1], Kate Borthwick[2], David Millard[1] and Yvonne Howard[1]

[1]School of Electronics and Computer Science, University of Southampton, UK [2]School of Humanities, University of Southampton, UK

Abstract

HumBox is a community repository for humanities-focused resources. It was created using a co-design process that revealed that for the repository to successfully support a community its users needed to have an identity in the repository, control of their own resources and lightweight communication tools. Now that HumBox has been running for over two years it is possible to reflect on these ideals and the tools that support them, and in this paper we present a survey of HumBox users that has discovered that the community tools were used to refine resources, encouraged engagement and led to a perceived improvement in pedagogic practices.

1   Introduction

HumBox is a community repository for humanities-focused Open Educational Resources (OER), reusable teaching and learning resources available under an open license (Caswell et al., 2008). HumBox has achieved wide success amongst the UK OER community and has successfully survived the ending of its initial funding through the continuing engagment and efforts of its community members.

The HumBox site has been running since June 2009 and has attracted nearly 1400 open educational resources. Any of the site's academic members can upload new resources, but a lightweight peer-review culture in the HumBox community has ensured that most resources are of a high quality. A resource can consist of as many files as its creator considers valuable, these are gathered together on a single page with in-line previews so that they can be read/heard/watched within the browser. Example content includes videos, transcripts and student exercises, and all content is Creative Commons licenced. The peer-review culture fostered by the original HumBox project has meant that often resources will have a rich discussion surrounding them, leading to their subsequent refinement.

In this paper we ask in what ways the tools and facilities of the HumBox site have provided value to the community of people using it. Using an online survey we have discovered that the value is in the form of more easily available resources for teaching humanities and that this has in turn led to improved pedagogical practices. These benefits are not from the technology itself but arise from the community that the software facilitates.

2   Community Focused Design

The HumBox is based on the EdShare platform (White et al., 2009) and was originally co-designed with stakeholders from the target community (humanties academics who were potential users), enabling them to identify tools that were appropriate for their discipline, and the ways in which they intended to use the system. The aim of the project was to establish an OER repository for the Humanties that encouraged enagement, reuse and the remixing

of resources (Lamb, 2004). User involvement in design brought the user community together at an earlier stage than would otherwise be possible and meant that it had longer to mature over the course of the project. It also forced the repository developers to focus on the community's needs from the beginning.

Three features were identified as essential to build a strong and successful community:

- Strong sense of user identity within the repository

- Complete control over the materials

- Mechanisms for communicating between repository users

These essentials were satisfied in the folllowing ways:

Identity: Each user has their own user profile with an internally facing page for feedback about how people are interacting with their resources. The profile also has an externally facing page which allows users to discover each other and contains a basic biography and information about their contributions to the repository.

Control: The repository is open edit and has no formal review or curation process because users wanted flexibility and control of their content throughout its life cycle. This means users can amend mistakes easily. They can also withdraw a resource at any time (for example, if they discover a problem with copyright or someone complains about the content of the resource).

Communication: Users have a lightweight mechanism for commenting on resources which have been uploaded. This allows them to discuss how they re-used the resources and suggest improvements to other users' resources. More complex communication mechanisms were discussed, but a comments system was familiar to users, and was felt to be less brittle than a more structured discussion system.

This resulted in a more lightweight and flexible approach than seen in traditional Learning Object repositories (Neven and Duval, 2002). During the design and build phase of the project the HumBox team ran workshops for project members and other potential users. The aims of the workshops were to get the users of HumBox talking to each other face-to-face and to build connections between them that would make the digital experience of using the HumBox more grounded. The workshops provided an excellent opportunity to discuss and share experiences of the practical problems associated with open content. They also provided an opportunity to give hands-on training and support to less confident users and increase awareness of copyright issues.

3   Methodolodgy and Aims

The HumBox repository has now been running for two years, one year longer than the initial funding period, and the community has continued to use the site, upload resources and comment on each other's contributions. We felt that this was the ideal opportunity to review exactly how users were contributing materials, to find out whether there were genuine pedagogical benefits and to examine which repository features and interactions encouraged engagement.

We conducted an online survey of the 400+ Humbox users to find out how using the repository had affected their teaching practices and received 55 responses. The survey was comprised of 22 questions of which 16 were multiple choice and 6 were open-ended. The survey was emailed to all registered HumBox users, circulated in the HumBox project network and advertised on the front of the repository and was open for 4 months. Participation in the survey was voluntary, which may lead to a sample bias of the more enthusiastic members of the community.

4   Survey Results

The full results of the survey including the questions asked can be found at http://eprints.ecs.soton.ac.uk/22063/. Below we present a brief summary.

A quarter of survey respondents said most materials uploaded to the HumBox had been previously used in teaching. Engagement with the HumBox community then further refines these resources. Although the resources are already of teaching quality when they are uploaded a fifth of survey respondents said they had changed a resource as the

result of a comment they received. The public way peer refinement is carried out in the Humbox community opens resources to a cross-institution academic audience increasing the scope for feedback. Fig 1 shows that this feedback is being used to improve the teaching materials. Respondents said they made a range of refinements to their resources from polishing up, to fixing broken hyperlinks, to republishing in different file formats. One respondent mentioned that they had won an award for one of the resources which they had refined.
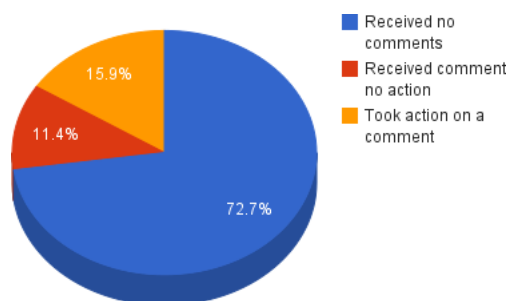

Fig. 1: Respondents reactions to comments

Commenting enables the community to refine their work but also to gives some measurable indication that their work is receiving attention. An analysis of Humbox usage data shows that users who receive comments contribute more to the community. There is a correlation between the comments a user receives and deposits that they make to the system (Pearsons correlation coefficient of 0.883 df=439). Users can also see their most viewed items and how often they have been viewed and there is also a demonstrated correlation between a users average views per item and the number of deposits they receive (Pearsons correlation coefficient of 0.407, df=439).

About 1/5 of respondents had reused another user's resource in their own teaching. A quarter of those respondents reuse the resource unchanged. Over half of the respondents which had reused also said they had modified the resource to suit their needs (see Fig. 2). These respondents remix existing resources to create new resources or remix their existing resources with other existing content.
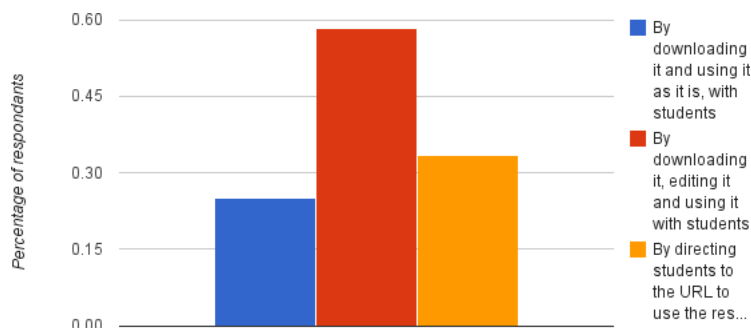

Fig. 2: How respondents reused resources

Some users are changing their pedagogic practices as a direct result of using HumBox. About a fifth of the respondents said that they had been inspired to change their pedagogic practices by a resource they had found in HumBox. Over half the respondents who reused a resource in their teaching had perceived a change in their pedagogic practice (see Fig. 3).

Respondents said their pedagogic practices improved in many ways. Examples include:

- Using methodologies from other resources in their own teaching

- Looking at open content for ideas and materials before writing their own materials

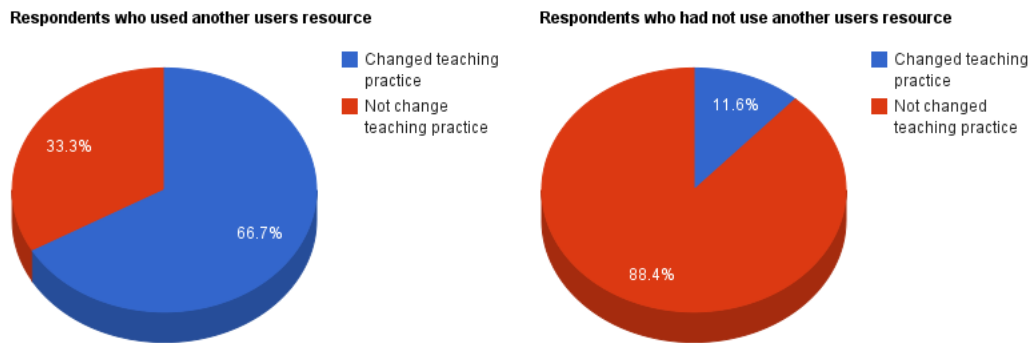- Experimenting with new types, styles and formats of teaching material

Fig. 3: Reusing the resourses of others

5   Conclusions

The HumBox is a repository of Open Educational Resources that has been live for over two years, with a small but active community (of more than 400 registered users). To build the community we brought users together in workshops and offered them tools to establish identity, control their resources and communicate with each other. The intention was that tools for communication would not only lead to refinement of resources but would also encourages users to engage with content and others in the community.

In this paper we have presented a survey investigating how engagement with the repository has impacted on users and their teaching. We have discovered that community interaction (such as downloads and commentary) encourages engagement and that enabling the reuse and community refinement of teaching materials has had a positive influence on the wider pedagogic practices of users, in particular those that have chosen to use open educational resources from the repository in their own teaching.

References

T. Caswell, S. Henson, M. Jensen, and D. Wiley. Open educational resources: Enabling universal education. *International Review of Research in Open and Distance Learning*, 9(1):1–4, 2008.

B. Lamb. Dr. Mashup or, Why Educators Should Learn to Stop Worrying and Love the Remix. *Educause review*, page 7, 2004. ISSN 1527-6619.

F. Neven and E. Duval. Reusable learning objects: a survey of LOM-based repositories. In *Proceedings of the tenth ACM international conference on Multimedia*, pages 291–294. ACM, 2002. ISBN 158113620X.

S. White, Y. Howard, J. Hey, D. Millard, D. Morris, L. Carr, and H. Davis. Bootstrapping a Culture of Sharing to Facilitate Open Educational Resources. *Learning Technologies IEEE Transactions on*, (99), 2009. ISSN 1939-1382.