

Opening up: Staff attitudes to open learning

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Abstract

BERLiN (Building Exchanges for Research and Learning in Nottingham), is a 12-month nationally funded project to enhance and expand Nottingham's existing open courseware initiative, U-Now, one of the first in the UK. The aim of the project is to progress the vision of sustainable open learning by making 360 credits of existing learning resources freely available online by April 2010. The Management Board at the University has a longstanding commitment to open access and we aim to build significantly on both this and the specific outcomes and experiences from BERLiN. The development of open learning and the wide distribution of open educational resources is a key strategic driver for The University.

As a first step, the BERLiN project team ran a series of staff focus groups to explore attitudes and any barriers preventing adoption at Nottingham, especially identification of the issues involved and developing strategies for overcoming them. The detailed results were illuminating though they did confirm our suspicions that anxieties lay in areas such as the fear of loss of control, legal or moral restrictions, time and effort required, quality controls and the extent to which the numerous forms of teaching can be represented in open learning. In particular, issues around copyright and appropriate attribution have led us to develop new workflows within our existing e-learning development tools.

In addition, The University of Nottingham is working with colleagues from OER Africa and seeking their input as end-users of open learning materials on the usability of materials provided, mechanisms for deployment and the limitations faced within the region.

The results of these investigations, strategies developed to overcome them and successes and failures experienced to date at

Nottingham will be discussed within this paper.

Keywords

ukoer, open learning, oer, open courseware, openNottingham, openAccess, openContent, HEAcademy, JISC, BERLiN

Introduction

"I've used other people's materials and some stuff you see is terrible and other things you think oh that's a good idea I'll do it like that. You pick and choose, mix it up with your own stuff and I find that an incredibly positive process."

BERLiN (Building Exchanges for Research and Learning in Nottingham) is a 12-month UK HE Academy/JISC-funded project to enhance and expand Nottingham's existing Open Educational Repository (OER), U-Now¹, one of the first OERs in the UK and a member of the international Open Courseware Consortium. The aim of the project is to progress the vision of sustainable OERs by making 360 credits of existing learning resources freely available online. The Management Board at the University has a longstanding commitment to open access² and we aim to build significantly on both this and on the specific outcomes and experiences from BERLiN. The development of an OER and the wide distribution of open learning resources is a key strategic driver for University, in particular supporting the University's international strategy ('knowledge without borders') and fostering interaction with prospective and existing students in order to complement their studies, as well as building connections with other HEIs nationally and internationally.

¹ <http://unow.nottingham.ac.uk/>

² <http://www.youtube.com/watch?v=E9MBkJr3ba8>



Figure 1: Screenshot of the U-Now website

From our own experience at Nottingham over the last three years, the major barriers to repository development are not technical, but cultural and managerial. The slow uptake of U-Now so far has been partly from a fear of loss of academic control, concerns over IPR, and insufficient internal and external promotion. The BERLiN project will reinvigorate this process through funding demonstrating the importance of this practice (both nationally and internationally) and supporting a programme of work all across the University. This programme will encourage both the routine use and the publication of learning resources for open distribution under a Creative Commons Licence. During the summer of 2009, the BERLiN project team explored the barriers preventing the adoption of OER at Nottingham and strategies for overcoming them. A series of academic focus groups were organized to investigate how the publication and re-use of open learning materials is perceived at Nottingham, as well as exploring feedback from external partners such as OER Africa³. The focus groups were separated into five group interviews with around 20 participating members of staff, at all academic levels and representing all faculties at the University. The detailed results were illuminating and discussed within this paper.

1 Why is Nottingham involved?

At Nottingham, three principal reasons for publishing open learning materials have been identified: social responsibility, promotional opportunities and cost efficiencies.

³ <http://www.oerafrica.org/>

1.1 Social responsibility

Social responsibility in this context can be described as providing high quality resources for students worldwide who would not normally be able to access a tertiary level education—sharing good practice, knowledge and supporting our international strategy of 'knowledge without borders.' Learners and teachers lie at the centre of this; it is essential to engage with end-users to determine what materials are required and what the format should be to maximise OER's benefits. To that end, Nottingham has been working with OER Africa to explore how OER sites such as U-Now can be improved for an external audience. Their feedback was helpful and illuminating (OER Africa Team, 2009)⁴.

OER sites need to address multiple audiences at the same time: students and teaching staff; international, national and regional; low and high bandwidths; and so on. This can create challenges in how best to present the material on a single site. However, given that many OER materials are available from multiple repositories such as OER Commons, Open Courseware Consortium and OpenJorum, it should be possible for the same content to be aimed at multiple audiences simultaneously, assuming each OER has a different intended target audience. The use of RSS may be one such mechanism, a solution that has already enabled U-Now to publish OER content through a variety of OER search engines with no additional effort, for example the Open Courseware Consortium⁵, XPERT⁶, Discover Ed⁷, OER Commons⁸ and OER Recommender⁹.

Each OER item should display the intended level of use and target audience, a brief description, the licence, file size, technical information and publisher, and the downloading instructions.

OER sites should include several different approaches to navigation including browsing, filtering (under theme, subject, level and type of material), tag clouds and free text searching.

⁴ <http://tinyurl.com/oerafrica-u-now-feedback09>

⁵ <http://www.ocwconsortium.org/>

⁶ <http://xpert.nottingham.ac.uk/>

⁷ <http://discovered.creativecommons.org/search/>

⁸ <http://www.oercommons.org/>

⁹ <http://www.oerrecommender.org/>

OER materials should be presented to encourage use and repurpose: expect and encourage end-users to edit, adapt and recreate.

At Nottingham, staff feedback suggests that social responsibility can be an attractive reason to provide OER content; but focus groups were sceptical about the potential for realizing the potential benefits in developing nations, and raised concerns about the limited user feedback available, *"You have a vague notion that you're part of a community because you do get emails and you do get a sense that by making things freely available you are offering it to whoever wants it but it's not very tangible... It would be nice to see something going into developing scholarships or whatever. That would be a lot more obvious."* One of the key aims of our partnership with OER Africa is to explore opportunities to provide content for named projects across the African continent. To that end, discussions held between UKOER partners, UK Commission for UNESCO and OER Africa in Nottingham in November 2009 sought to establish mechanisms for circulating African HE requests for OER content more quickly within participating UKOER partners. It is hoped this mechanism will help establish further partnerships across Africa and provide valuable feedback on the usefulness of our OER content. Ultimately, we hope this end-user feedback will not only help improve the quality of our OER provisions but support more effective reuse locally.

For some loss of IPR remains a concern, *"there is a danger that some people might take our material, package it together and sell it to somebody"*; or the potential loss of commercial opportunities, *"there is the obvious public good of knowledge being in the open domain and people being able to access it. On the other hand we're a commercial institution and we need to protect our intellectual copyright and we need to get students who want to come here and there's an obvious tension between those two reasons for open access."*

Feedback also highlighted the challenges of localization, *"the grumpy person in me is saying what on earth does somebody from Africa want with a lecture of mine because of the nature of my subject... That wouldn't stop me from offering them the material but I think*

one needs to be understanding of what type of material goes where." As well as a degree of scepticism, *"as soon as universities [in the UK] started to charge fees, altruism went out the window. It's a changed environment. We are not educating people for a better society. We are educating people for money."* However, this is a view not shared by all, *"making it available is altruistic. We just have to be more open about it"* a view that resonates with the growing demand for more easily editable OER developed with openness in mind from the start.

Traditional OER sites often assume a producer-centric model of publishing: materials are provided with little opportunity for end-users to influence what becomes available. At Nottingham, we are exploring the potential of capturing the results from failed searches within our OER tools (XPert¹⁰) to provide a better understanding of what end-users are looking for and presenting this visually (perhaps in a tag cloud) as a 'wanted' list—however, early tests revealed that some user searches contained terms that may make an automated publication process undesirable.

1.2 Promotional opportunities

Promotional opportunities in this context mean both for individual academics and at a school or institutional level. In the focus groups, Nottingham academic staff recognised the promotional benefits for the institution *"I fought quite hard for the materials to be made more widely available than just within the University for a number of reasons. It adds to the reputation of the Centre, it attracts good tutors; it's got lots of knock-on effects that are very positive. I've got blogs and wikis and various other things that I make freely available. You notice if the number of hits you get a month on particular websites is very high so you know you are attracting wider interest."* Whilst others point out, *"I get the sense for example that in Australia and in the States the better universities do make a lot of stuff available... so you get a sense of - well it's obviously not doing them any harm."*

Potential damage to reputation however is a concern, *"you might get the A.N.Other HEI putting up this lecture saying 'Look what Nottingham is doing, they are way behind the times!'"* However, sharing and reusing open

¹⁰ <http://www.nottingham.ac.uk/xpert/>

learning content has the potential benefit of allaying these academic fears, through exposure to a wide variety of peer-produced content and reducing any unfounded fears over quality. Other academic concerns include, *"you would have to put up one of your example 1st year student lectures which would be 'noddy' material and if you make it really simple so they understand it they'll think you are a good lecturer but you are not actually conveying university level material."* Clearly, the addition of intended educational level and target audience within OER materials is important for end-users and contributors alike.

Quality control is another concern, for example the impact of association with poorer quality materials, *"the flip side of Nottingham University having our intellectual property. Does it want to be identified with some things?"* Fears were also raised regarding impact on reputations—should misleading information—due to lack of context—be published, *"...in a lecture you might say something that's not quite what you intended in the heat of the moment. I'm not saying you say something that's wrong but it doesn't come out quite right. So to have the words that you were saying recorded for someone to take out of context"* or worse, recording gaffs, *"you could also be exposing your weaknesses to a wider audience. The big concern people have is the YouTube thing, recording lectures. Something funny happens where you fall and your trousers fall down and that becomes worldwide. It's not the educational value it's the entertainment value."* Clearly editorial controls are important for reassurance within the publishing process, and at Nottingham clearance via an editorial board made up of PVC, Director of Teaching and Learning, IPR manager and senior staff provides this mechanism. In addition, as all materials released on U-Now is, or has been, in use with Nottingham students, therefore quality control mechanisms for the learning materials is already monitored by other mechanisms within the University before submission for OER publication.

Staff also enquired whether—in a research-intensive institution—promotion was available to academics publishing high quality open learning materials, citing the traditional research route as the only mechanism for promotion, *"I don't think it would make any difference to our reputation as teachers. The*

whole culture is research. All the promotions and everything are through research." Including biographical data with published OER materials could help enhance reputations of content providers; even so, concern was felt that academics could well gain an international teaching reputation but fall behind in their research field. This proved to be a major concern for Nottingham staff.

In addition, academics voiced concerns whether students would attend lectures if teaching materials were available publically, or worry that OER may make them replaceable, *"if we move to open access and we move to making more of these things available, there may be worries, especially in these credit crunch times, that if you have a full series of lectures captured, the University could make those available to students and you could get yourself out of a job."* At Nottingham we are not suggesting a wholesale publication of all learning materials across all modules, so this fear should be lessened. In addition, previous experience of web-based lecture capture technologies in Australia has revealed that attendance is not necessarily affected (Gosper, M., Green, G., McNeill, M., Phillips, R., Preston, G., & Woo, K. 2008)¹¹; results replicated locally *"a colleague in our school has done all of his lectures as vodcasts. He's done some podcasts and some vodcasts which were very popular with the students and weirdly it meant that they actually attended the lectures better."*

At an institutional level, HEI OER sites enable prospective students to explore a taught curriculum when selecting a course. Those in the Nottingham focus groups acknowledged the promotional potential for U-Now as a 'shop window', or an opportunity for the University to demonstrate teaching and learning excellence and encourage potential students to make informed decisions about the type of course or institution that interests them, *"One reason why our School has taken the decision that we do want the material to be on webpages generally accessible is so that potential UCAS students can see the sort of things that we do."* However, concerns were raised over whether a single institutional OER site was the best place to realise these benefits, *"if I wanted to find some lecture notes on a particular subject then I would look at the School page of whatever university it*

¹¹ <http://tinyurl.com/5pusva>

was." U-Now currently publishes an RSS feed for all content. Creating subject-specific RSS feeds for publication on school websites should encourage central deposit whilst offering widespread distribution opportunities.

A number of issues were discussed around the end-users for OER. Understanding the target audience is essential and some academics expressed concerns over how their materials will be received by potential students, *"if it's a good lecture you're getting stuff back from them and you can't do that from just sending things out in one direction. You've no idea what the reader is thinking of it and they might get a totally different message from your material than you intended."* Or inadvertently supporting poor learning strategies, *"if it's out there what do you do with the first year students who actually do it all before they get here and then think they don't have to do anything."*

The time and effort involved in publishing OER materials is also a barrier for Nottingham staff, not only in development of materials but also IPR clearance, *"We put things in WebCT (institutional VLE) which is then available to our students but **only** to our students. They are the only ones who have access to it. And we've got almost set texts that we've got deals with the publisher, or agreements that it's fine for teaching and it can only be used for teaching purposes but there's no way they'd let that go out to everyone. You'd have to take out a lot of the key diagrams about mechanisms and things like that which would make it hard. You'd never do it."* Certainly, the BERLiN project team has enabled the University to meet this additional resource requirement for the duration of the project, but clearly mechanisms to ensure the appropriate use of open content at the start of the development process are required.

Given the additional effort to release OER, other academics called for tracking mechanisms to highlight use and value for the end-user, but this brings its own challenges, *"you can track it if it's on web pages but you don't know who's looking at them. You can do it from IP address but it would be very laborious to do so."* Currently, Nottingham's U-Now site tracks hits (currently around 2000 visitors per month) as well as downloads, but mechanisms to explore further use is needed, perhaps offering opportunities to allow repurposed materials (language conversion

for example) to be made available through a mutually effective mechanism. In addition, the opportunity to develop social learning opportunities by fostering communication and online communities through the addition of Web 2.0 functionality may help provide feedback mechanisms for providers and build connections between users of OER.

Questions were raised over whether freely offering OER materials devalues them, *"I have found with stuff I've done in the past is if you charge people for stuff – and it needn't be very much – they treat it better, if you are talking teaching packages and stuff. If they have to go through their internal finance and pay the University of Nottingham so much for the privilege – it may not be very much – they've got a kind of inbuilt respect for the thing."* However, open source as a model for use and repurpose has long existed within computer software, with multiple examples of high quality, high value materials in use worldwide under open licences.

1.3 Cost efficiencies

Finally cost efficiency benefits mean teaching staff can use and re-purpose existing high quality OER materials, reducing development timescales and sharing best practice. However, editing and re-purposing is often limited by the technical ability of the end-user—anything beyond plain text requiring increasingly sophisticated skills. As discussed, the time required to provide suitable content is a huge constraint for Nottingham academics, many citing the need to recreate their taught materials for open use, arguing their taught materials contain anecdotes, personal opinion or current research (which may be proven false or become out-of-date post publication) which they would never consider publishing formally, *"There's no way of taking stuff off. You do a Google search and you get all sorts of information that's 20 years old, 10 years old, 5 years old, 3 years old all equally up front and that's an issue"* suggesting that 'time stamping' date of production is important within the publishing process.

Loss of control and IPR infringement is a cause of considerable anxiety for staff at Nottingham, *"the thing I'd be wary of is the copyright issues because I'm sure we've all got things that could be copyright issues"*. In addition, there is a natural desire to repurpose OER materials to meet individual needs, *"I think even with colleagues when they share their lectures with*

you, you'll still make it your own, you won't just take it." Fears over possible IPR infringement suggest staff at Nottingham are already familiar with reusing other's content, but as discussed earlier there is a need for better guidance, repositories and search tools to enable staff to find and re-purpose open content at the start of the development process—a key aim of the UKOER programme.

Concerns were also raised around the subsequent additional cost in effort when preparing materials for open consumption, *"I think the worry would be that if it's all going to be much more widely available you need to do it to a higher standard and that's going to take a lot more time and we are not funded to do that. Where are the extra resources going to come from to do that?"* From Nottingham's experience, dedicated resource funded under the BERLiN project has helped to promote, organise and prepare materials for publishing on U-Now, required to provide sufficient impetus and move the project forward. However, careful consideration should be given to the format in which materials are published as OER. As discussed we should expect and encourage re-purpose, *"I've used other people's materials and some stuff you see is terrible and other things you think oh that's a good idea I'll do it like that. You pick and choose, mix it up with you own stuff and I find that an incredibly positive process."* Deciding to redevelop existing content as locale independent 'vanilla' OER comes with a considerable additional cost. Consequently, at Nottingham we have decided that it is impractical to go beyond IPR clearance, addition of metadata and packaging within an OER repository. Rather, we believe providing existing OER content as used within an institution with a clear textual description of context of use is possibly preferable, demonstrating use in context and potentially supporting judicious re-use and localised interpretation by a wider audience of end-users.

Once again the target audience for OER was raised as a potential issue, not only students but also teachers. In addition, cultural implications of re-use were discussed, *"sometimes you get American lecturers or something where they've stuck them in their equivalent of WebCT but it happens to be open access. Sometimes you can get good diagrams there, numbers and things like that. They are useful but a lot of it is rubbish*

because it's all in American." Again the need for re-purpose is vital for localisation. However, simply because teaching staff are welcome to re-purpose OER materials under an appropriate Creative Commons licence, in reality are they able to? Technological barriers can be a very real issue to open publishing and additional resources dedicated to content conversion may be required.

Nevertheless, the cost benefits of re-use and re-purpose of OER remain, especially where mechanisms to support re-purpose exist. Nottingham's open source e-learning development tool Xerte Online Toolkits is already empowering non-technical teaching staff worldwide to create highly interactive and accessible multimedia learning materials¹². Building on Xerte Online Toolkits, the Xerte project team at Nottingham has released XPert (beta)¹³. This is a JISC-funded rapid innovation project exploring the potential for delivering and supporting a distributed repository of e-learning resources created and seamlessly published through Xerte Online Toolkits. The aim of XPert is to progress the vision of a distributed architecture of e-learning resources for sharing and re-use. Creators of learning resources at Nottingham and beyond can contribute to XPert via RSS feeds created seamlessly through local installations of Xerte Online Toolkits. XPert has been fully integrated into Xerte Online Toolkits, enabling users to publish open content easily, but also, where permissions allow, to re-purpose interactive multimedia content easily too.

Some academics voiced concerns about distributing materials from other HEIs, *"I'd feel very strange handing out notes to my students written by somebody else in another university. I would feel I wasn't doing my job properly somehow. I'd still feel I'd want to rewrite them. If I was handing out some notes developed by someone who was doing the equivalent module in A.N.Other University, I'd think the students were thinking 'Well why didn't I go to A.N.Other then'."* Within research, it is unthinkable to consider publishing without referencing work that has gone before, building on collective knowledge and benefiting from sharing innovation and best practice. Arguably teaching and learning would benefit from a similar practice, *"you are*

¹² <http://www.nottingham.ac.uk/xerte>

¹³ <http://www.nottingham.ac.uk/xpert/>

sort of talking about a world or global university aren't you potentially where you can see there is inefficiency. Let's say there are 10 physiology departments in the country and each of those physiology lecturers will be pretty much doing something similar. So you say instead of doing all that we'll just use that one."

The potential impact on current practice was explored within the focus groups, *"when a colleague put his lectures up he discovered he had more students attending lectures and the way they listened completely changed. They didn't need to take notes in the lecture because when you are taking notes you don't listen. So they were actually listening in a very different way to his lecture."* With others embracing the new technologies, despite early hesitation *"I always thought recording lectures would make me terribly self-conscious but I did it once just as an experiment and after 90 seconds I had forgotten it was being recorded. As long as you have a portable microphone because anything that makes you be static is bad because that will keep interfering with your contact with the people in the room. As long as you can still interact with them and wander about then I found it fine."*

Use of OER across subject areas is also a potential benefit, *"I think for interdisciplinary offerings this might be quite handy. I can see that there might be a geographer doing a course on environmental protection who doesn't really want to know anything about China but wants to include it as a case, so one of our lectures that is all about the environment of China might be a handy thing for them to borrow without having the entire module."* The potential to share a wide cross section of views was highlighted, *"In my Department for example we have people who are very interested in the material condition of objects, other people are interested in the process of viewing the object, other people will be much more interested in the consumption so it goes off into sociology. So even in a Department of eight people you'll have eight different approaches which totally disagree. Our argument is it's good for the students to see different ways of approaching the same thing. A good open courseware project for us would be: one object, all eight of us, half an hour, go and see what eight people make of one object."*

Early developments with U-Now suffered from lack of relevant materials, due mainly to low numbers of materials available, *"I've taken an interested look at U-Now but there's nothing on there that is of any use or significance"* or prominence *"U-Now's lack of prominence is an issue but also there is a danger of it being quite fragmented in terms of content and that's why people wouldn't necessarily go and look at it."* We believe the slow uptake and visibility of U-Now has impacted growth to date, an issue the BERLiN project is targeted at addressing.

1.4 Conclusion

The growth of OER publication worldwide continues to add to the increasingly rich and varied open learning content available. The benefits for contributing institutions are varied and bring with them their own challenges. Mechanisms to encourage adoption and re-purpose within individual contexts are required to realize many of the benefits offered by OER. It is not always cost effective or desirable to make materials created for delivery within a blended context available openly without support mechanisms for use and re-purpose. To that end, it continues to be a careful balancing act to ensure the needs of both the content providers and end-users are met.

2 References

- Gosper, M., Green, G., McNeill, M., Phillips, R., Preston, G., & Woo, K. (2008). The Impact of Web-Based Lecture Technologies on Current and Future Practices in Learning and Teaching. <http://tinyurl.com/5pusva> Support for the original work was provided by The Carrick Institute for Learning and Teaching in Higher Education Ltd (now known as the Australian Learning and Teaching Council), an initiative of the Australian Government Department of Education, Employment and Workplace Relations. Last accessed 08/03/10
- OER Africa Team (2009). Survey of the University of Nottingham Website. <http://tinyurl.com/oerafrica-u-now-fee-dback09> . Last accessed 08/03/10.

3 Appendices: Focus group analysis

3.1 Overview

Grouping the comments broadly into one of the three themes identified, the focus group feedback reveals that promotional opportunities were discussed most frequently within the groups, followed by cost efficiencies, with only a few direct references to social responsibility. At this point, it appears that staff at Nottingham most readily recognizes the ability for OER to provide a marketing vehicle for the University.

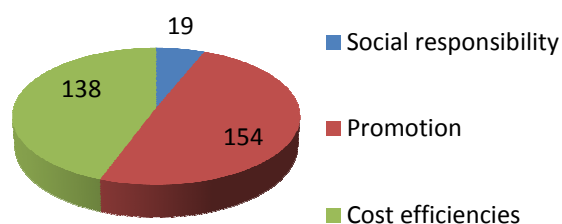


Figure 2: Distribution of focus group feedback into one of the three main themes

Next the focus group comments were grouped under topics within each of the three main themes, with the results tabled in Figure 3. From the feedback provided, the three main topics discussed were the potential *development costs* for OER, (possible negative or neutral) impact on *academic promotion* and the potential for providing a *University showcase*. *IPR* was discussed as an issue in all three themes, but not as frequently as anticipated. In publishing OER materials at Nottingham, IPR is proving to be one of the more challenging areas to navigate. Encouragingly, the potential to *change current practice* was seen as significant for both cost effectiveness and promotional opportunities. However, *academic concerns* around publishing OER within both promotion and cost efficiencies themes remain relevant for many.



Figure 3: Distribution of focus group feedback across topics discussed

Exploring the feedback further under each of the themes, grouping comments as positive, negative or neutral towards open learning, U-Now, or its aims, the following results are obtained.

3.2 Social responsibility focus group feedback

Under the theme of social responsibility, some comments were sceptical about the reasons behind OER and its potential to benefit developing nations; whereas the potential to support a University showcase or positively impact developing nations was more neutral in nature, albeit hopeful in part "It would be nice to see something going into developing scholarships or whatever. That would be a lot more obvious".



Figure 4: Distribution of focus group feedback under the theme of social responsibility

4.3 Promotional opportunities focus group feedback

Under the theme of promotion, the potential to provide a University showcase was more positively viewed and seen as the major benefit in this theme. However, concerns were raised regarding the potential to provide a route for academic promotion within a research-led institution, with the majority of the comments either negative or neutral. Interestingly, the comments received appear to suggest that there was a largely neutral perception of the potential impact on book sales because of the different natures of the content provided.

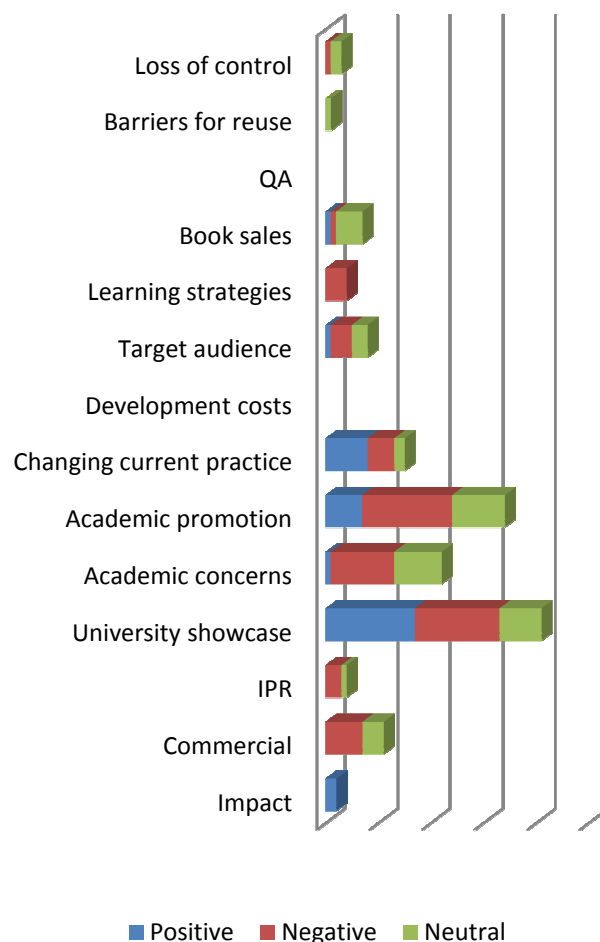


Figure 5: Distribution of focus group feedback under the theme of promotion

4.4 Cost efficiencies focus group feedback

Under the theme of cost efficiencies there was a mixed response to the development costs required to publish OER, with many questioning the support and effort required. Some comments recognized new tools (such as Xerte Online Toolkits) which supports the easy creation of online materials, whilst others discussed the benefits to them in repurposing high quality materials created by others, *"but in terms of teaching I'm sure we all teach things that we know less about and that might be the areas that we could gain from."* Encouragingly, the ability to *change current practice* was viewed more positively, *"people have different ideas; they have a different take and sometimes it just takes somebody moving round the room in a different way."* However concerns were raised over the potential to be associated with inaccurate or out-of-date information, *"the stuff you present in lectures tends to be ahead of what's in the public domain. You like to tell people what*

you've found out last week and then the week after you might find that it was wrong and if it's in the system, then that's a danger." Finally, loss of control, impact on commercial opportunities, encouraging poor learning strategies and possible IPR infringement continue to cause considerable anxiety for some staff.

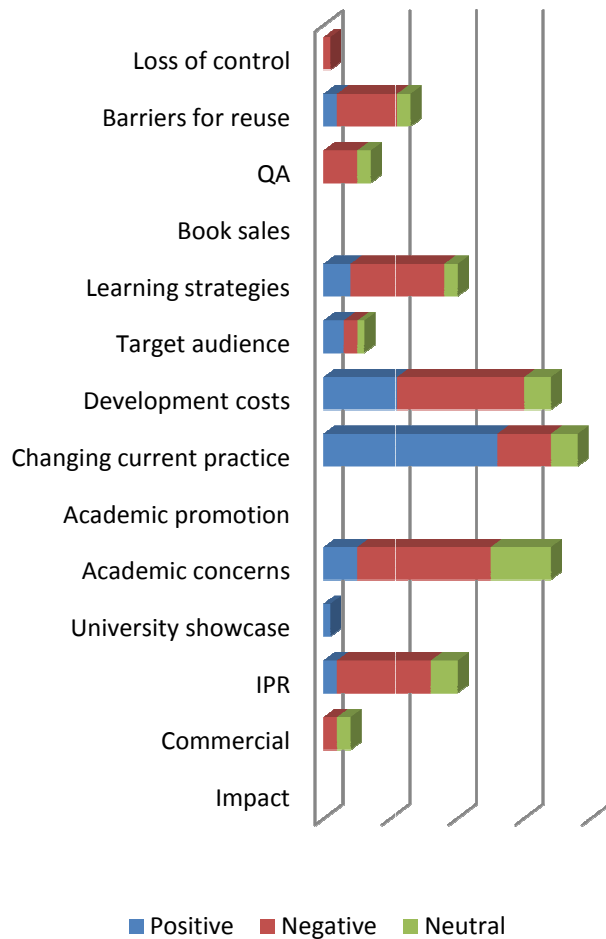


Figure 6: Distribution of focus group feedback under the theme of cost efficiencies