

# OER (open educational resources): e-tips

*Based on a paper presented at the UKSG One-Day Conference: London, November 2015*

The University of the Highlands and Islands covers a very large area, with 14 widely scattered main campuses and many local learning centres. The University makes use of high technology to link with students and staff for learning, teaching and research. In this context, an investigation of the role of the University as the creator and publisher of e-textbooks and networked resources is a natural imperative. As part of a Jisc-funded project, two e-textbooks are currently being produced, their use evaluated and the whole development process documented for use by other higher education institutions. The books have a complementary open access website. The context of this project is described and the initial results presented.

To start with, it might be useful to have an understanding of my work location. My office is in a small college, on an offshore island, on the north-western perimeter of the European continent. To function as a component part of the UHI (University of the Highlands and Islands), my campus is networked with 12 other colleges and research centres to provide an integrated further and higher education service covering the entirety of north-west Scotland. To put this into perspective, this is a land area about the size of Belgium, equivalent to 25% of the land-mass of the UK. This network of 13 partner colleges and over 70 local learning centres is spread across a very wide geographic area, including 110 islands, and stretches more than 300 miles south to north. Even allowing for flights rather than road/ferry, to visit each of these campuses physically just once per month would take more than a year. A continuous tour of the network, allowing for one day of work at each campus, would take almost an entire month of travelling. The scale of the network can be realized when an outline of the UHI geographical area is laid over a map of England, and it then can be seen why digital and online resources are a necessary part of life for the institution. The alternative is a bit like saying to a student in Brighton on the south coast of England that the requested book *is* in the Library, when in fact it is actually in a building in Glasgow, or Oban, many miles away up in Scotland.

For these reasons, the UHI has a highly networked computer and communications structure, giving access to personal files and software from anywhere in the network. Naturally, the combined contents of all the campus libraries in the network can be consulted online, and books can be physically sent from one location to a student at another location. The important point, however, is that in addition to the physical libraries on each campus, the UHI maintains online library access to a wide range of journals, e-books and other digital artefacts, such as images, video clips and audio files.

From this viewpoint, it is probably easy to understand why my thoughts turned to online publishing of an e-book when I wanted to release my first novel. I have written several books, but never a novel, and I wanted to try this genre. When I looked for a publisher, however, all I got back were rejection slips. Publishers said that they liked the book (a sequel to Rudyard Kipling's *Kim* – an unusual venture, perhaps) but that it did not fit with their back-catalogue, or their other publishing priorities. The obvious immediate solution for me was to reformat the book and self-publish it on Amazon Kindle, where it



FRANK RENNIE

Professor of Sustainable Rural Development  
UHI and Assistant Principal, Lews Castle College UHI, UK

'UHI is spread across a very wide geographic area'

21 continues to sell. This process got me very interested in generating e-books for specialist and minority-interest subjects and for use in education.

At this point, Jisc invited tenders for a research programme to investigate the practicalities of the institutional publishing of e-textbooks for use in education. The UHI, together with colleagues at Edinburgh Napier University, tendered for the programme, and the e-tips project (e-textbook institutional publishing services) was one of four UK projects subsequently awarded funding.

'the e-tips project was one of four UK projects awarded funding'

## Launching the e-tips project

The objective of the project was to explore models and processes for universities to publish their scholarly products by publishing two e-textbooks and hosting companion websites with OER (open educational resources) to expand on points of detail. The reaction to and use of these e-textbooks and associated resources would then be evaluated. The two e-textbook topics selected were *How to write a research dissertation* and *How to get started on research*. Both books are published on Amazon Kindle for a nominal price, and the companion websites hosted by the University, which made the website resources free at the point of access. The hope is that other users and institutions will expand the companion websites by contributing additional OER. The companion websites are intended to supplement each e-textbook with additional resources which can expand and further explain the written textbook. These online resources can be quickly and easily updated when necessary, without requiring any alterations to the e-textbook. The website can be expanded over a period of time to include new ideas and new resources, enabling the relevance of the e-textbook to be refreshed and re-contextualized. An example might be that while the e-textbook explains the importance and relevance of the need for a proper system to reference evidence in academic writing, the website can provide numerous examples of how and when to use several different referencing styles such as Harvard, or Vancouver, or perhaps a specialist style for other disciplines.

In thinking of the intended readership, our rationale in the construction of the e-books was that the e-textbooks should give guidance on generic subjects for a wide range of student readers. This way, it is hoped that the e-textbooks will not age quickly and will have a longer 'shelf life'. The companion websites can be updated more easily than the e-textbook, and can also feature a diversity of approaches and opinions. The whole research process will be documented and made openly available online.

'The whole research process will be documented and made openly available online'

A key issue for the UHI is the need for geographical equivalence for students and staff. Making use of networked digital technologies can mean that students need not be co-located with the tutor, or with the educational resources in the various libraries. If students and staff can access high quality online resources, then it matters little whether they are in the middle of a city or on a small offshore island. Cost-saving could be a big benefit to the institution when resources are shared electronically rather than by physically moving stock around or needing to duplicate teaching resources at numerous localities. By making the resources open and/or available for a nominal charge, we hope to encourage the wider dissemination of the scholarly work of the University and open it up to new audiences who are not able to travel to one of our campuses to access the physical resources. The cost/benefit analysis will certainly consider the impacts upon the brand name and the reputation of the scholar and the University which might result from the increased visibility of these digital resources on the open internet. The expectation is that the continuous association of the University's name with high quality educational resources, made freely available, will function as a form of global promotion of the University at very little additional cost to normal working practices. This is also seen as a natural extension of the role of a university to have a public service function to provide educational benefits to society as a whole.

22 The e-textbooks produced by this project were published on Amazon Kindle, and this format was selected for a number of reasons. The primary reason is that as a major online distributor, Amazon Kindle places the e-textbook in a global marketplace, deals with visibility (promotion) of the e-textbook and automatically sets the international pricing structure. It also provides options for handling the international DRM (digital rights management). The tagging system employed by Amazon for products allows future publications to be identified with the same University brand and enables browsers to quickly locate other publications by the same authors or by the institution. As a marketing ploy, the first e-textbook was offered free for one week and received over 2,000 downloads globally.

## Implications of the 'attention economy'

The concept of the 'attention economy' has wide implications for our society but can also be applied to higher education. Conventional capitalist economics dictates that a higher financial value is attached to scarcer commodities. Conversely, more abundant commodities have a lower financial value. One idea is that information is now so abundant that consequently the worth of any particular piece of information has lessened in value. What has become scarcer, and thereby more valuable, is the ability of any particular piece of information to grab our attention from among the welter of competing bits of information. A classic example is the way that tabloid newspaper headlines seem to scream outrageous front-page headlines at us to distinguish themselves from the other newspapers available. In educational terms, we are almost swamped by alternative sources of information, some useful, others less so, and we use measures such as peer review or reputation to distinguish what should receive our attention. This is important for our e-textbooks because even though a piece of information may attract attention, it does not necessarily imply that it is important. It also means that important pieces of information, such as a discipline-changing academic monograph, or a novel PhD dissertation, might go unnoticed among the thousands of other titles, simply because they do not catch our attention.

'we use measures such as peer review or reputation to distinguish what should receive our attention'

There are a number of other observations on human behaviour that challenge the way that we think about these new, digital resources for education. We are seeing a blurring of work and non-work time. For instance, academics work additional hours for the pleasure of what they are doing, they take work home with them, they spend extra hours working on a journal paper or a book, despite the fact that the labour spent on these activities is not directly rewarded by financial incentives. In fact, many conventional academic journals completely rely upon this non-paid work by academics in order to be commercially viable. This blurring of work allows us to repurpose a piece of academic writing into an e-book at virtually no additional cost. Related to this is the apparent inability of the market to fix prices consistently for these new networked products. We see it in the huge variation in the prices of online travel tickets, or on hotel rooms, depending on where and when the booking is made. Related to this is the ability to add worth to a product through online collaboration and networked production. We see this in the rise of open source software, sharing the code and distributing it free, and in the popularity of new media services that mash up or blend digital components from various contributors – images, audio, music – to create new artefacts. Another issue is the growth of free digital materials that are either non-copyright or branded with Creative Commons licensing. Sharing images on sites like Flickr, Google images, or Wikimedia is often done by people who want no personal financial gain, or who may be prepared to offer free products as an incentive to promote their profile and offer other products for sale. Many of these free products are offered for no economic benefits to the contributor, simply as a contribution to social good – perhaps for personal ideological beliefs or simply for satisfaction, in a flashback to the principles of the attention economy.

'conventional academic journals ... rely upon non-paid work by academics in order to be commercially viable'

23 As a whole, the benefits of this networked attention economy accrue to society at large, as well as to the objects of attention. We now expect networked information as a public good. We look up train times and quotations on Google; we use our smartphones to store boarding passes and identify snatches of music; we expect to access our e-mail and our personal files from any place with an internet connection. In fact, we tend to get annoyed when a place has poor or non-existent WiFi, because we have come to regard connectivity in the same way that we expect water to come from the tap and electricity to flow at the flick of a switch. For generations, universities have sought to bring the scholarly works of its staff to the attention of learners and to the intellectual public. Their problem is twofold: firstly, good books get lost among the superabundance of other new books, which is why online vendors place such value in attracting readers' ratings, comments and good web analytics. Secondly, the market for a specialized academic publication, no matter how good the product, might be very small, and this works against our standard economies of scale. The last three academic books that I wrote retailed between £60 and £80 in hardback – well beyond the normal budget of the average student, particularly for purchasing information which is fast-moving and will certainly change over the next few years.

An additional reason for producing scholarly works is that the institution, and the authors, benefit from enhanced profile and reputation gained from browsers and potential readers. It is also beneficial that e-books and other digital resources can often be produced as 'extra' products on the back of work which is taking place for other reasons, such as the preparation of a talk, a journal paper, or a set of lecture notes. While there is a cost in generating the initial resource, the extra product can often be gained at minimal cost and, once generated, the cost of reproducing digital artefacts tends towards zero over time. Lastly, having contributed to OER, all other users, including the university, can potentially benefit when others contribute their own OER to the pool. This collaborative approach to the provision of educational resources can benefit a greater number of people than a closed-door approach where institutions only use resources which they themselves have invested in creating.

'the cost of reproducing digital artefacts tends towards zero over time'

## Challenges for the institution as e-textbook publisher

In terms of the institution becoming an e-textbook publisher of scholarly resources, some specific challenges have been identified during this research project. Firstly, for different reasons, a different management structure is needed for both the university and for external publishing companies. Within limitations, the pre-production processes of e-textbooks and printed books are similar, and both formats need to be carefully written, reviewed, proofread and correctly formatted for the intended readership. The university, unless it has an in-house publishing arm, does not generally deal with these issues at an institutional level, yet these tasks always need to be undertaken to ensure a quality product. From the position of both the university and an external publishing company, a different cost/benefit model needs agreement. Many academics feel that it is no longer acceptable for them to write journal papers, peer review other academics, perhaps edit a journal, all without payment, then for the journal publisher to impose copyright on the final product and charge them a fee to access the articles. For this reason, there is a growing movement to support online, open access, free-to-viewers, peer-reviewed academic journals which allow the authors to retain or share copyright. The publication of other academic and scholarly works, such as e-textbooks and monographs, must surely be the next development in this sphere.

A key challenge is to ensure that the institutional brand gets recognition (attention) for making these digital resources available. The university might decide to offer some free resources like e-textbooks or video clips in order to attract students to sign on for fee-paying courses or for assessment. Similarly, a commercial publisher could seek to draw attention to their brand by offering services which provide additional extras, such as access to a masterclass by an author, or links to further resources. Several

'A key challenge is to ensure that the institutional brand gets recognition'

24 possible models can be envisaged which might benefit in different ways the community, the author and the resource provider.

The main difference between printed and e-books is at the distribution stage. Both formats might have the same content, but their use, distribution, impact, storage and reward are very different. Previously, if any of the information contained in a printed book was inaccurate, the readership would need to wait for a reprint before the inaccuracy could be corrected. Rectifying any inaccuracy could be costly. Now e-textbooks can be updated on a fairly regular basis, and consequently there is a different dynamic in the relevancy of information and its social benefits. We no longer need to remember long phone numbers because we can enter the information onto our mobile phone. We no longer need to sit in the library and read the contents pages of each academic journal in order to learn what is new, because from our desk we can search dozens of journals online and download relevant articles for future reading. Most importantly, once we have information in a digital format, it is easy to reproduce very accurately and easy to repurpose in other digital formats. Moreover, once the content has been created, the costs of reproducing this fall towards zero and liberate the information to be used in a greater variety of circumstances. What we learn from this is that not only is the nature and abundance of information changing, but human behaviour is changing the way that we use information. Books which were previously stored in archives in case they might be needed can now be digitized and made freely available to anyone wishing to search their contents. There are concerns, of course, about the transience of digital data, and certainly the types of media, and their ease of use, are changing rapidly, but the challenge that we have as educators is how to obtain the greatest benefit for the maximum number of people, and currently open digital resources appear to offer big opportunities for global public education.

‘human behaviour is changing the way that we use information’

## Conclusion

What should the e-tips model explore next? Certainly, there are other forms of scholarly works which might be considered for publication as e-books, e.g. monographs, research dissertations, even extended essays. Many of these may not have any real commercial value in themselves, but their non-monetary value may be worth a considerable amount to the author(s), the student(s), and to the institution. An obvious direction to explore is to enhance the networking activities of the global academy. Already, several universities have sought common ground to make their OER available, and it seems likely that this networking will extend. Since this research project started, there have been developments in the POD (print-on-demand) sector, so it is now possible to see a future where e-textbooks are the default position, with readers requesting a POD paper copy if they really wish to have a hard copy. The reducing cost of production opens up the potential for very short and very specific e-texts, perhaps in minority languages or focusing on individual modules, or short courses, each of which might have a fast-changing dynamic, or a lifespan which is not conducive to the costs and production system of conventional printed publications. There are certainly emerging links to other OER which can be added to the companion websites as the use of these websites expands. Last, but not least, there is the capacity to use new search and discovery mechanisms in order to add value to digital texts and OER by giving them the attention that their merit deserves.

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### Competing interests

The author has declared no competing interests.

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Frank Rennie

Professor of Sustainable Rural Development, University of the Highlands and Islands and  
Assistant Principal (Research, Enterprise and Development), Lews Castle College UHI, University of the  
Highlands and Islands, Stornoway, Isle of Lewis HS2 OXR, Scotland, UK  
E-mail: Frank.Rennie@uhi.ac.uk

ORCID ID: <http://orcid.org/0000-0002-7935-9985>

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