Case Study of iTunes U Deployment: University of Nottingham

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Introduction

The Open Educational Resources movement is often traced to 2001 when Massachusetts Institute of Technology announced it would begin publishing its entire course catalog free on the internet. (Perkins, 2010) UNESCO announced its support for open educational resources in 2002 in its study into the impact of open courseware on higher education in the developing world (UNESCO, 2011). Finally the Cape Town Declaration in 2007 encouraged all governments to subsidise the creation and publication of open educational resources (Cape Town Meeting Participants, 2007). Also in 2007, iTunes U was launched by Apple Inc. as a channel for universities to publish free multimedia learning materials, quite separate from the OER movement. And yet it quickly was seen to be a possible channel of real OER. While many OER projects were launched through infusions of special project money such as from the Hewlett Foundation (which supported UNESCO and the Open University's OpenLearn), iTunes U sprang up as cooperation between Apple and several universities. (Acosta, 2008) This report examines the iTunes U implementation of the University of Nottingham and will be of interest to educators, managers, and technologists considering launching an iTunes U site or who wishes to know more about open educational resource issues.

This report is an output of a SCORE project with Shared Solutions of the UK Open University, entitled SPIDER: Sharing Practice with iTunes U Digital Educational Resources, from November 2010 through October 2011. Information presented is from a number of sources, including an online survey advertised worldwide through social media, capture and analysis of Twitter tweets containing the keyword itunesu, articles, reports, books, and interviews.
University of Nottingham: Background and Open Educational Interests

The University of Nottingham was established in 1881 as a University of London constituent college. In 1948 the University gained Royal Charter for university status and today is the third most popular university in the UK in terms of applications. In 2011, its enrollment was approximately 40,000, with campuses based around Nottingham, United Kingdom, as well as internationally in Ningbo, China and Kuala Lumpur, Malaysia. In 2009, the Times newspaper referred to the University of Nottingham as "the nearest Britain has to a truly global university" and "a prime alternative to Oxbridge" (Times, 2011).

The University of Nottingham has a long-standing engagement with technology-enhanced learning, beginning in the 1990s. In 2007 Nottingham launched U-Now, one of the UK's first OER repositories, building on Nottingham's commitment to innovation, widening participation and openness. U-Now's creation should be seen in the context of the JISC funded SHERPA project (on open access institutional repositories, led by Nottingham and begun in 2002) and other developments such as YouTube Edu (YouTube, 2011), XPERT (UniversityofNottingham, 2011a), OpenCAST (OpenCAST, 2011) and the Open Courseware Consortium (OCW, 2011) in all of which Nottingham has been involved. The University of Nottingham was one of the first universities outside of North America to launch a YouTube.edu channel. These projects have now been brought together under the umbrella initiative Open Nottingham. The University of Nottingham established links with OER Africa to further develop its open content work.

In November 2006, the University of Nottingham launched Podcasting @ Nottingham, in which academic staff were encouraged and assisted to record audio podcasts of lectures and other academic events. Staff were given 'podcasting kits' and the uploading process was simplified to encourage increased participation. These podcasts were made available on the university website, and were intended for both internal and external users. While the programme was felt to be a success, it was also felt that discoverability of these podcasts should be enhanced (Beggan, 2010).

Figure 1. University of Nottingham iTunes U home page

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Investigation of iTunes U and its benefits

The U-Now team had already been making their podcasts available within iTunes through RSS feed (available in the 'Podcast' section of iTunes). In 2008, iTunes U was opened to universities in Europe, and University of Nottingham considered it as a platform. At first, however, the university was not sure iTunes U was right for them. Did partnering with such a large corporation in this way imply being commercialised? How should a university view this issue?

In 2008, iTunes U was opened to universities in Europe. By 2009, the U-Now team and University of Nottingham could see that iTunes U potentially offered very substantial benefits to large numbers of users around the world, to the university producing the materials, and to individual academics producing the materials.

The U-Now team recognised the following positives offered by iTunes U:

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<tr>
<th>Key iTunes U Benefit</th>
<th>Description of Benefit</th>
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<tr>
<td>Discoverability</td>
<td>Being a global RSS feed aggregator [800 Universities worldwide, 350,000 audio and video files, 600 million downloads from launch until September 2011], iTunes U would offer Nottingham's podcasts to the world in the way no website could.</td>
</tr>
<tr>
<td>Enforces metadata entry</td>
<td>Podcasting @ Nottingham podcasts had metadata, but iTunes U forces some metadata entry and provides a single portal which aids discoverability.</td>
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<tr>
<td>Profile</td>
<td>Arguably the most respected open learning repository in the world</td>
</tr>
<tr>
<td>Quality</td>
<td>Universities tend to put their best-quality multimedia in iTunes U, so iTunes U material is of a certain level of quality</td>
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<tr>
<td>Consistency of Categorisation</td>
<td>&quot;It's known as a place that people look for educational content with consistency of categorisation&quot;</td>
</tr>
<tr>
<td>Open Learning Agenda</td>
<td>University of Nottingham demonstrated their commitment to open learning with their Open Nottingham initiative. If a university is serious about providing open learning content, it should distribute through iTunes U.</td>
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<tr>
<td>Not blocked in China</td>
<td>While Nottingham was already using YouTube.edu, this channel is blocked in China where Nottingham has a campus. iTunes U is not blocked in any country.</td>
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Table 1. iTunes U benefits, leading to Nottingham's decision to join iTunes U (McGarvey, 2010)

Pre-Launch: the Team and the Process

The decision to join iTunes U was made and the project begun on 12 February 2010. Encouraged by enthusiastic leadership from the ProVC of Teaching and Learning, a team was formed (Figure 2) to prepare for the launch, which was scheduled for 15 June, 2010. It is notable that none of these positions represent new staff. All of these jobs were done by shifting priorities of existing staff.
Figure 3 details the steps taken to prepare files and post them to the university server. Because Nottingham already had many podcasts recorded and published on their website from the Podcasting@Nottingham project, there were many files almost ready for iTunes U. For these resources it was simply a matter of checking and choosing files rather than creating from scratch. In order to launch an iTunes U site, Apple requires 150 unique files to be ready, and recommends having 150 additional to that, held in reserve, so that the university can release some of those in the weeks immediately after launch. For detailed information from Apple regarding management of the iTunes U site, see their 'Using iTunes U Public Site Manager' (Apple, 2011). As for copyright and intellectual property rights issues, Nottingham took advice from JISC, which has now published a set of tools aiding preparation of open educational resources (JISC, 2011).
iTunes U Launch and immediate results

The University of Nottingham launched its iTunes U site on 15th June, 2010, with a gala event at Nottingham and live-streamed at the Chinese and Malaysian campuses. An e-learning seminar featured as part of the event, focusing on U-Now, Nottingham's open educational resource initiative of which iTunes U is part. A video recording of the Pro Vice Chancellor for Internationalisation and the Director of Teaching and Learning was played, promoted U-Now and the university's work with open educational resources. The recording was felt to be very good promotion of OER work both within and without the university, and is now posted on the Open Nottingham website (UniversityofNottingham, 2011b).

<table>
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<th>Statistics to September 2010 - the first 19 weeks</th>
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<tr>
<td>&gt;110,000 previews</td>
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<tr>
<td>&gt;44,000 downloads</td>
</tr>
<tr>
<td>&gt;9000 unique IP hits</td>
</tr>
<tr>
<td>67 albums with &gt;300 tracks</td>
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<tr>
<td>14GB of data</td>
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Table 2. University of Nottingham iTunes U site metrics up until the first 19 weeks after launch

Prior to the iTunes U launch, the University of Nottingham began to video-capturing lectures using the ECHO 360 system. As instructors experimented with video recording their lectures, they were invited to consider releasing some into iTunes U.

iTunes U Content Strategy

Content in the iTunes U site must be organised in such a way that a university's assets are highlighted and offered in a way which quickly makes sense to the user. Content provided by the University of Nottingham falls into three 'internal' categories -- the Nottingham iTunes U team identifies material as below, even though these categories are different from what is seen by the user on the site:

1. Educational - Including captured lectures and traditional teaching content
2. News and Documentaries - New discoveries, University news and activities
3. Quirkier Side - Fun educational content, to inform, entertain and inspire

On the Nottingham iTunes U site itself, content falls under three categories:

1. Just Arrived - newer material
2. About Us - roughly corresponds to 'News and Documentaries', 'marketing-type' content
3. Subjects - main subject categories for content
Case Studies of University of Nottingham Content on iTunes U

1. Periodic Videos, and a comparison of iTunes U with YouTube

Prior to the Nottingham iTunes U launch, Professor Martyn Poliakoff had established a successful blog and YouTube channel, Periodic Videos, at http://www.periodicvideos.com. The length and fun tone of the videos lend themselves perfectly to YouTube, and many viewers comment and discuss the videos on YouTube. In February 2011, Professor Poliakoff began to make some videos available on iTunes U, believing that 'only a handful' of viewers would consume them on iTunes U (Haran, 2011). Yet some of these videos climbed to the number 1 downloaded video on iTunes U during subsequent weeks.

This series of videos presents an interesting opportunity to compare iTunes U with YouTube as a multimedia open content channel. YouTube allows more discussion. iTunes U allows star ratings and comments, but not many people comment.

In response to Professor Poliakoff's blog post announcing the high numbers of iTunes U downloads, one USA teacher commented, "Please put them all on iTunes. We can get iTunes at school, but YouTube is blocked." This reveals a negative aspect of YouTube - it is blocked in many schools (certainly UK schools block Youtube), as well as blocked in many countries.
Another commenter on the above-described blog post wrote, "Actually, I didn't even know you were on iTunes!!! I guess that's why. Most people go through Youtube. This is brilliant as I use your vids in class as well. I'm going to set up my own personal library on my laptop! Coool!" The commenter, identifying his/her location as France and apparently being a teacher as well, like Poliakoff states "Most people go through YouTube" but goes on to give at least one reason why iTunes will be more useful to him: one can set up a personal library of downloaded videos on one's computer or laptop, using iTunes which allows files to be downloaded and kept organised, and replayed even when there is no internet connection.

Figure 5. Dr Martyn Poliakoff and comments on his videos on iTunes (blue) and on his blog (black background)

2. Politics in Sixty Seconds

The School of Politics and International Studies creates a series of 'Politics in Sixty Seconds' in which political topics are discussed in slightly over sixty seconds. Topics include "Why is the right wing important?" and "Green politics." These videos are brief and entertaining, and consistently attract the highest number of downloads of any Nottingham iTunes U item. These fall into the "Quirkier Side" category discussed in the previous section, and often include 'blooper reel' videos.

3. Mathematical Analysis with Dr Joel Feinstein: motivation for sharing, and examination of the usefulness of recorded lectures
Dr Feinstein is unusual in that he makes most of his lecture files of current modules available on iTunes U. Therefore, both currently-registered students as well as anyone else in the world can access his current lectures. He also runs his own YouTube channel. Dr Feinstein claims on his website and blog that he enjoys figuring out ways to explain mathematical concepts in a way that students can understand.

I asked Feinstein (by posting on his blog) what was his motivation for giving away his lectures to both 'paying customers' (current students) and everyone else as well. His reply is that 1) he likes explaining things and it feels good to help others understand, especially others from around the world 2) he is happy to publicly represent both his teaching and his University 3) it's another way of increasing traffic to his blog, and 4) through the University's link with OER Africa, Feinstein could see the value his module materials could bring to another place with fewer resources (Feinstein, 2011).

Feinstein commented also that on YouTube it is easier to see who is viewing his material and from what country. To compare with iTunes U, Apple sends to each iTunes participant a weekly spreadsheet of downloads and from what country. On YouTube it is possible to see views and from where views are happening at any time.

Figure 6. Dr Joel Feinstein's Mathematical Analysis material on iTunes U. It is clear from the descriptions that these materials comprise a full lecture series for a module. Under Links, there is a link to Dr Feinstein's blog.

Feinstein wrote a blog post and generated much discussion on the question of whether recorded lectures actually help students to learn better (Callaway, 2009). He notes that students certainly like having the lectures recorded, and that good students make good use of the recordings. But it is possible that the availability of the podcasts leads some students to skip lectures and put off listening to the podcasts, and so
they never 'catch up' and do poorly on exams. Although it seems to contradict his own case studies, Feinstein acknowledges the work of McKinney, Dyck, and Luber, which found that students who only listened to a recorded lecture and took notes scored significantly higher on tests than students who only attended the live lecture and took notes (McKinney, Dyck, & Luber, 2009).

Seventeen months after their iTunes U launch, a member of the U-Now team wrote on their blog: "I've been looking at the stats for our iTunes U site recently, which launched in June 2010. It is really pleasing to see that 17 months on from the launch, views on the site plus downloads now total more than 1 million. The exact figure, as of this morning, was 1,045,486. The breakdown was 473,004 views on the site and 572,482 downloads… iTunes U sometimes comes in for criticism around the level of openness that it supports. In terms of satisfying a rigid definition of OER (if such a thing exits), it probably wouldn't make it into the club. What can't be criticised though is the high traffic nature of the platform, supported by the truly global nature of the iTunes brand" (Stapleton, 2011).

Conclusions

The University of Nottingham established its iTunes U presence against a backdrop of work in OER and experimentation with both podcasts and video-recorded lectures. The university's link with OER Africa lent additional context to this work and encouraged participation and motivation. Its iTunes U offerings include a variety of video and audio-only files, some for current live modules. Its very successful YouTube.edu channel provides a place for learners to post comments and discuss, but the iTunes U channel has higher numbers of downloads. Although no new people were hired to accomplish it, launching iTunes U required significant work. In Autumn 2011 the University of Nottingham will begin to track recruitment against its OER offerings, to see if providing OER results in actual student registrations.


