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Implementing electronic theses at the University of Glasgow: cultural challenges

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Abstract

Many UK university libraries are actively engaged in the process of introducing electronic theses to their institutions. This article describes the strategies that have been adopted by staff at Glasgow University Library in trying to implement electronic theses and the challenge that have been faced. The article concludes that a number of lessons have been learned from the experience and presents further strategies that have subsequently been developed. External developments which may help speed up the transition to electronic theses are also detailed.

Keywords: electronic theses, ETDs, DAEDALUS Project.

1. Introduction

The area of electronic theses is one which many universities in the UK are actively engaged in. Generally speaking progress towards online submission of theses has not been as swift in the UK as in other parts of the world. Most university libraries are very enthusiastic about electronic theses, but many that have undertaken work in this area have discovered that thesis supervisors and sometimes university administrators are less keen on the idea. In most cases it is necessary to change University regulations in order to require students to deposit an electronic copy of their thesis, and this can be a time-consuming and sometimes frustrating process.

Despite barriers to progress there have been a number of developments in the area of electronic theses within the UK over the last ten years. In their recent article Copland and Penman (2004) provide a detailed overview of developments and the current state of affairs. The current article is not an overview of electronic theses developments in

the UK, but rather a discussion of the specific challenges that have been faced at Glasgow University in trying to move towards an acceptance of electronic theses. As such, the article does not include details of software choices and technical issues. The article summarises the steps that have been taken to try and introduce electronic theses at Glasgow and the issues raised that have made progress difficult. In addition, the article considers recent developments that are likely to have an impact on further progress and details follow-up strategies currently ongoing.

2. Theses at Glasgow

2.1 Electronic theses and the DAEDALUS Project

The first moves towards introducing electronic theses at Glasgow University came about within the context of the DAEDALUS Project (Data Providers for Academic E-content and the Disclosure of Assets for Learning, Understanding and Scholarship) based within the University Library. DAEDALUS is a three year project funded by the JISC (Joint Information Systems Committee) under the FAIR Programme (Focus on Access to Institutional Resources). The project set out to develop institutional repositories for the University encompassing a wide range of different content types. These include published papers, conference proceedings, pre-prints, working papers and theses. Theses were therefore not tackled in isolation, but within a wider context.

The project aims relating to theses were fairly broad, and in essence specified that an OAI (Open Archives Initiative) compliant repository for PhD theses would be established. Exact details of how content would be obtained for this repository were not included within the plan.

In some respects dealing with theses as part of a wider project concerned with trying to make scholarly publications more widely accessible was useful, as this meant that theses could be discussed within the wider framework of open access. However, it is also true to say that in some ways it might have been more straightforward to deal with theses as a separate issue. It is likely that the Library would have taken on the challenge of moving towards electronic theses even if funding had not been awarded for the DAEDALUS Project.

2.2 Current thesis submission process

In order to understand the challenges being faced some background information about the current thesis submission process at Glasgow may be useful. The University was established in 1451 and in many ways is still a fairly traditional institution. Around 450 theses are submitted to the University of Glasgow each year. The University regulations governing the thesis submission process specify that students must deposit two bound printed copies of their thesis. At least one of these copies must be deposited in the Library. In many cases the second copy is also held by the Library, but some are deposited in departmental libraries. At Glasgow theses are kept within the Library's Special Collections Department on a closed access basis, and can only be used within the Special Collections Reading Room. Records for all theses are included in the Library's online catalogue (<http://eleanor.lib.gla.ac.uk>) and details of theses are also sent to the British Library and to the Index to Theses database. Requests for copies are received from the British Library and are sent there to be microfilmed.

Within the University as a whole theses are administered at Faculty level, generally by the graduate school or equivalent. The University consists of ten Faculties, each of which contain varying numbers of individual departments. Most Faculties have a graduate school which is responsible for all matters relating to postgraduate student and their supervision. The regulations governing the submission of theses are laid down by the University Senate, which oversees the regulation and superintendence of the teaching and the discipline of the University and the promotion of research. Any changes to these regulations must be approved by the relevant Senate committees.

Until the DAEDALUS Project Team began looking at the area of electronic theses there had been no previous moves towards asking students throughout the University to submit an electronic copy of their thesis. A small number of students have made copies available on their personal web sites, particularly if they have gone on to be a member of staff at Glasgow. Some have also deposited their theses in national repositories such as the Archaeology Data Service (<http://ads.ahds.ac.uk/>). Anecdotal evidence has revealed that at least a couple of faculties have started asking students to submit copies of their theses on CD-ROM. However, this is in addition to the regulation printed copies, and the faculties who have taken steps in this direction do not appear to have set up any systematic method of making these electronic copies available.

2.3 Initial attitudes to electronic theses amongst academics staff

Initial discussions with academics staff, including PhD supervisors, seemed to indicate that the majority of them were keen on the idea of electronic theses, and were in agreement that there were a number of advantages in making theses available

online. This was by way of contrast to some staff attitudes towards the idea of depositing published papers in an institutional repository. Initial impressions were therefore that theses would be an easier type of content to make progress with than some of the other material being investigated by the Project.

2.4 Desired outcome

The general consensus within the Project and amongst staff in the Library involved with theses was that the University should move towards a position whereby students are required to submit at least one electronic copy of their thesis. It was expected that for some time to come one printed copy would still be required to be submitted along with the electronic copy. Ultimately it may be possible to move to a position where students are only required to deposit an electronic copy, but this is likely to be some way off.

As well as the advantages for individual thesis authors and for the University as a whole of increased visibility and access there are also more practical advantages for the Library. Currently over 13,000 bound theses (including many second copies) are held in the Special Collections Department of the Library, thus occupying a large area of shelf space. Moves towards electronic deposit will ultimately mean that the space taken up by printed theses will not increase as fast as is currently the case.

3. Strategies

3.1 Securing existing content for the repository

In order to secure some initial content for the theses repository it was decided to target graduates who might be interested in making their completed theses more widely

available. It was hoped that this would provide content that could be used for demonstration purposes. A small number of graduates were approached via supervisors who had expressed interest in the DAEDALUS Project and who had been willing to provide project staff with up to date contact details for their former students. Following on from this a short news item was placed in the University's alumni magazine, *Avenue*. This encouraged interested graduates to get in touch with the Project. This news item attracted interest from a number of graduates over a period of several months.

As well as being a useful method of gathering content to populate the repository, some of the theses offered raised interesting questions. For example, one thesis offered was a 'thesis by publication'. The thesis consisted, in the main, of articles from peer-reviewed journals. The author was only willing for it to be made available in the repository if the relevant permissions were obtained from publishers. This raised the issue of whether or not thesis authors rather than project staff should be expected to clear rights for third party copyright material included within theses. Another author was willing to seek permission retrospectively on her own behalf, but wanted advice on which third party material she needed to seek permission for.

The author of the thesis by publication also wanted to include new text providing information on developments with his research since the thesis had been published. This proved problematic, as the decision had been taken early on by project staff that the copy of the thesis we wanted to include in the repository was to be the copy as passed by the examiners, and not subsequently amended. However, it was concluded

that it might be possible for such information to be included as a separate file linked to the record for the thesis.

Other graduates were very keen for their thesis to be included, but only if it could be scanned. Unfortunately project resources did not extend to scanning theses, so this was not a service that could be offered.

Dealing with these theses provided useful experience in highlighting some of the challenges that would arise when current students started to deposit. It was clear that these issues would need to be resolved before academic staff would be willing to accept mandatory deposit.

3.2 Advocacy activities relating to theses in progress

When deciding how to go about raising the issue of electronic theses within the University an initial approach was made to the University authority concerned with the regulations governing theses – at Glasgow, the Senate Office. However, approaches to staff there did not meet with huge enthusiasm, and project staff were advised that changes to the regulations would only be considered if the issue was raised by staff within the Faculties. With this in mind the decision was therefore taken to concentrate advocacy efforts on those staff in the Faculties concerned with the thesis submission process. This consisted mainly of Graduate School Directors (academic staff) and a variety of Faculty administrative staff. Rather than giving individual presentations to each Faculty a University wide event on electronic theses was organised and invitations were sent to the relevant staff from each Faculty. This event took the form of an afternoon session consisting of an introduction from the

Director of Library Services, a presentation on general electronic theses issues by a colleague from the Edinburgh based Theses Alive! Project (helping to reinforce the message that this was not just a local issue), a demonstration of the pilot theses repository developed by project staff and a question and answer session. By the end of the session it was hoped to have identified possible areas of concern, but also to have gained some sort of mandate to move forwards.

The event proved to be extremely successful. Staff from nearly all faculties attended. There appeared to be real interest in the issue, and also a willingness to discuss the matter further with Faculty committees. A number of anticipated issues were raised, and the general feeling amongst project staff was that most concerns had been successfully dealt with.

The most widely expressed concern related to the possible consequences of making theses freely available online immediately after acceptance in relation to possible patent applications or the intention to publish the thesis as a book or series of journal articles. This concern was addressed by the assurance that students would have the option of choosing an embargo period of one or three years (the options currently offered for printed theses). Reassurance was also provided that that majority of publishers do not consider making a thesis available online as 'prior publication'.

Related to this was a concern that students needed to safeguard their intellectual property rights, and give proper consideration to the implications of their thesis being available online. Some of those attending felt that when giving consent for their thesis

to be made available online students should be required to have the deposit form co-signed by their supervisor.

A deliberate decision was taken to present the option of an initial period of voluntary electronic deposit. It was felt that this would be a stepping stone on the way to mandatory deposit which would allow interested students to deposit, but would not force students to deposit. A successful voluntary deposit process would hopefully allow Faculty staff to see that the process could work and thus persuade them to go ahead with mandatory deposit.

3.3. Development of a draft deposit form

Following the event project staff developed a draft electronic thesis deposit form. Ultimately it was intended to move to a position of having a combined print and electronic deposit form. As a stepping stone on the way to this, the electronic deposit form was intended as a voluntary option, i.e. students could elect to deposit an electronic copy of their thesis over and above the required print copies, but this would not be compulsory. The form asked students to accept the following statements:

I hereby declare that I am the sole author of this thesis. I certify that the electronic version I am submitting is a verbatim copy of the successfully defended thesis as accepted by the University of Glasgow.

I agree that the thesis be placed in the thesis repository with the following status:

- Release the entire thesis immediately for access worldwide

I retain ownership rights to the copyright of my work. I retain the right to use all or part of this thesis in future works (such as books and articles).

I certify that where necessary I have obtained permission from the owners of third party copyrighted material to include this material in my thesis. I acknowledge that the University of Glasgow retains the right to withhold or withdraw the thesis from the repository if it becomes apparent that such permissions have not been secured.

I hereby grant to the University of Glasgow the non-exclusive right to archive and make accessible my thesis, in whole or in part in all forms of media. I agree that for purposes of preservation file format migration may be carried out should this be necessary.

Taking a lead from discussions at the theses event, students were required to obtain their supervisor's signature, thus ensuring that theses were not being deposited against the advice of supervisors. This was not a requirement for printed theses, and it was hoped that by introducing an element of consultation into the process this would address some of the concerns of supervisors.

As the deposit form was intended for voluntary deposit the option of an embargo period was not offered. This decision was based on the assumption that students would be choosing to deposit, and therefore would presumably choose not to deposit if for any reason they wanted to restrict access to their work.

The form was circulated to all staff who had attended the theses event, and comments and suggestions were sought. Some attendees replied with individual comments, but in most cases Faculties choose to discuss the form and the general issue of electronic theses at the most relevant Faculty committee. While this was an important step

forward it also had the effect of removing the discussions out of our control, as project staff were not invited to attend the meetings at which the matter was discussed. In retrospect it would have been wise to ask to attend the relevant meetings, as in several cases a variety of misunderstandings and misconceptions arose. Had project staff been in attendance at the meetings these could have been addressed on the spot, and further misunderstandings prevented.

The most commonly raised concern was the need for an embargo period. Initially it had been assumed that staff seemed not to have appreciated that deposit was to be voluntary, and were under the impression that they were discussing mandatory deposit. However, in some cases it seems that staff were alarmed at the prospect of students being given the go ahead to voluntarily deposit electronic copies of their theses without being presented with the option of an embargo period. With hindsight it would have been wise to include embargo options on the form even though common sense suggested that they should not be necessary for voluntary deposit. Particular concern was raised in faculties where students were carrying out research into sensitive areas, e.g. those concerning animal experimentation, or topics such as GM foods.

It quickly became clear that staff did not perceive the idea of voluntary deposit as a less threatening stepping stone to mandatory deposit. The same concerns were raised regardless of the fact that students were not being required to deposit an electronic copy of their thesis. For this reason the omission of an embargo period option from our draft deposit form was a serious mistake, as staff were given the mistaken impression that we had not considered this matter.

Some faculties were particularly concerned at the potential loss of cutting edge research ideas to other universities. Rather than being keen for new ideas to be widely publicised some staff felt that by making theses widely available these ideas would be ‘stolen’, thus preventing them being developed further at Glasgow. This was a difficult issue to address, as this is indeed a possible consequence of making theses freely available online.

One of the most revealing outcomes of this consultation process was the extent to which supervisors feel that they should be involved in making the decision as to whether or not a student’s theses should be made available online. Despite the fact that students retain copyright of their thesis at Glasgow, supervisors indicated that they and other members of their department contributed sufficient intellectual input to merit an input into the decision. Also surprising were supervisor’s concerns that students would not consider the possible disadvantages of making their thesis available online, and would simply go ahead without regard for any possible negative consequences.

One Faculty indicated that they would only be willing for the ‘best’ theses to be made available in the repository, thus raising concerns about the quality of some theses. This was another sensitive issue, as project staff had assumed that theses worthy of being awarded a PhD would be of a sufficiently high standard to be made publicly available. This concern appeared to be in direct conflict with the advantage to the University of demonstrating the quality of its postgraduate research by making it available online.

Perhaps most depressing was the reaction from some supervisors that theses are not a significant element of the research literature and that it was not worth making them more widely available than is currently the case. This is not a view that can be easily changed. Statistics demonstrating high levels of use of electronic theses can be pointed out, but this will not necessarily counter such a negative viewpoint on the general worthiness of theses.

4. Moving forward

4.1 Lessons learned

Coming after such a successful event project staff were disappointed by the negative comments received in response to the circulation of the draft deposit form. It was clear that more work needed to be done in allaying fears and correcting misconceptions. The level of concern had obviously been underestimated, and such a hostile response had not been anticipated. For a time it was difficult to know how to move forward.

Given the fact that students at Glasgow retain the copyright of their thesis the issue of whether it would have been more productive to speak directly to students should be considered. It is likely that some students would be willing to go ahead and deposit their thesis in the repository, and in fact a small number of students have approached project staff and asked to deposit their thesis. Dealing directly with students would have been an easier way of securing participation on a voluntary basis and securing content for the repository. However, two major considerations meant that in the long term this might not be the best course of action. Firstly, theses were only one content

type being sought by the project. Project staff felt that it would be unwise to sidestep staff in the pursuit of theses, as it was necessary to develop and maintain good relationships with them in order to pursue published peer-reviewed material for our ePrints repository. Secondly, as the ultimate aim was mandatory electronic deposit of theses and this could only be achieved through the official channel of committees it was felt that it was best to take this approach from the beginning in order to demonstrate serious intent. However, there is definitely scope for talking to students about the issue of e theses, perhaps within the context of the Research Training Courses run by Library staff for postgraduate students.

On a more optimistic note a number of recent developments have brought the issue of electronic theses to the fore, and should help move matters forward.

4.2 Scottish Open Access Declaration

In October 2004 a meeting addressing the issue of open access was held for senior staff in the Scottish higher education and research communities. The meeting culminated in a Scottish Open Access Declaration (<http://scur1.ac.uk/WG/OATS/declaration.htm>) which all Scottish higher education institutions were encouraged to sign. Glasgow University was one of the first signatories. Significantly the declaration specifically mentions theses. One of the recommendations for universities and research institutions was to ‘Encourage, and where practical mandate, the deposit of PhD theses in an institutional repository’. As Glasgow has signed the declaration the institution is currently engaged in deciding what practical actions can be taken in support of it. The specific issue of electronic theses in the context of the declaration has been raised at the University Library

Committee, and representatives of each of the Faculties have been asked to discuss the issue again. This has resulted in renewed discussions on the topic and a recognition by Faculties that progress needs to be made.

4.3 EThOS Project

In 2004 a JISC Invitation to tender for A Project to Support e-theses for UK Higher Education was announced. A consortium bid was put together by a number of UK universities, including Glasgow, and the British Library. The bid was successful and the EThOS Project began in January 2005 with Glasgow as the lead institution. It is hoped that our involvement in a project of national significance will strengthen the argument that electronic theses can offer significant benefits to students and universities, and will help persuade staff involved with theses that action needs to be taken. The development of a UK wide electronic theses infrastructure will hopefully be an important factor in demonstrating to staff locally that many universities in the UK are moving towards implementing electronic theses.

4.4 Freedom of Information (Scotland) Act 2002

A third factor which may have some bearing on the matter is the Freedom of Information (Scotland) Act 2002 which came into force on 1st January 2005. The Act is intended to promote openness and accountability within all Scottish public authorities, including universities. As a result of the act, universities are required to make available to the public all recorded information they hold. Although theses are not specifically mentioned in the Act, and there is some uncertainty as to whether theses are a publication that are required to be disclosed under the Act, a number of UK universities have adopted the position that within the spirit of the act theses

should be made as easily accessible as possible. Offering theses in electronic format would obviously be a major benefit in this respect. Within the context of Freedom of Information discussions have also taken place with regard to the current embargo options offered to PhD students at Glasgow, and it is possible that students choosing the embargo period may now be asked to indicate why they have done so. It seems likely that many students in the past have simply chosen an embargo period without actually giving the issue much more consideration. If students are required to justify their choice this may make them less likely to choose to restrict access, and thereby help to make more theses available immediately.

4.5 Practical steps

Trying to introduce electronic theses on a University wide basis may have been too big a step. A better solution may be to introduce the idea on a smaller scale and then try to extend this further. Following discussions with a number of faculties, the Faculty of Biomedical and Life Sciences have now agreed to take part in an electronic theses pilot. While details of the pilot are still being developed the general idea is that students completing their PhDs within a particular period will be expected to deposit an electronic copy of their thesis. The pilot should enable project staff and faculty staff to work together to develop a system that satisfies the needs of all concerned. The Faculty of Biomedical and Life Sciences have a number of concerns relating to electronic theses, and it was felt that it would be most beneficial to work with a faculty which had demonstrated fairly significant opposition to the idea. If a model can be set up that is satisfactory to the Faculty of Biomedical and Life Sciences then hopefully this will also be satisfactory to other faculties within the University.

5 Conclusions

Trying to implement electronic theses at Glasgow has been a challenging process, and a number of lessons have been learned. Evidence from other institutions that have successfully introduced electronic theses suggests that the presence of a ‘champion’ within the senior management of the university can make a big difference. Such a champion can take the lead at the relevant committees and is likely to have the power to push through the necessary changes in the regulations. We did not have such a person in place to champion our cause.

Raising the issue across all faculties certainly helped to get staff talking about electronic theses, but the subsequent discussions at committees without the presence of project staff had a negative effect. Uninformed discussions led to confusion and in some cases hostility to the idea. Consequently the process of building up support within the faculties almost has to start again from scratch. However, this is always going to be a potential problem within a large institution with a plethora of committees.

Offering an initial system of voluntary deposit of electronic theses did not act as a gradual stepping stone towards mandatory deposit – staff had exactly the same concerns about voluntary deposit as they did about mandatory deposit.

In institutions which have previously offered the option of an embargo period for printed theses it is likely that this will also need to be offered for electronic theses. This issue has been by far the biggest stumbling block as a result of our failure to include embargo options on the draft deposit form for voluntary deposit. It is likely

that progress could have been made more quickly if we had not taken the decision. It was hard to correct misconceptions once staff had assumed that no embargo option was going to be offered, even for mandatory deposit.

The introduction of electronic theses at a traditional institution is likely to be a long and challenging process. Staff charged with persuading their institutions to adopt electronic theses need to be prepared to encounter negative attitudes and to be prepared both to make a case for the benefits to be gained from electronic theses and to counter arguments against them. A great deal of thought needs to be given to how best to raise the issue within the local institutional context and to what policies will need to be put in place in order to minimise concerns that electronic theses will have a detrimental rather than a positive impact.

References

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