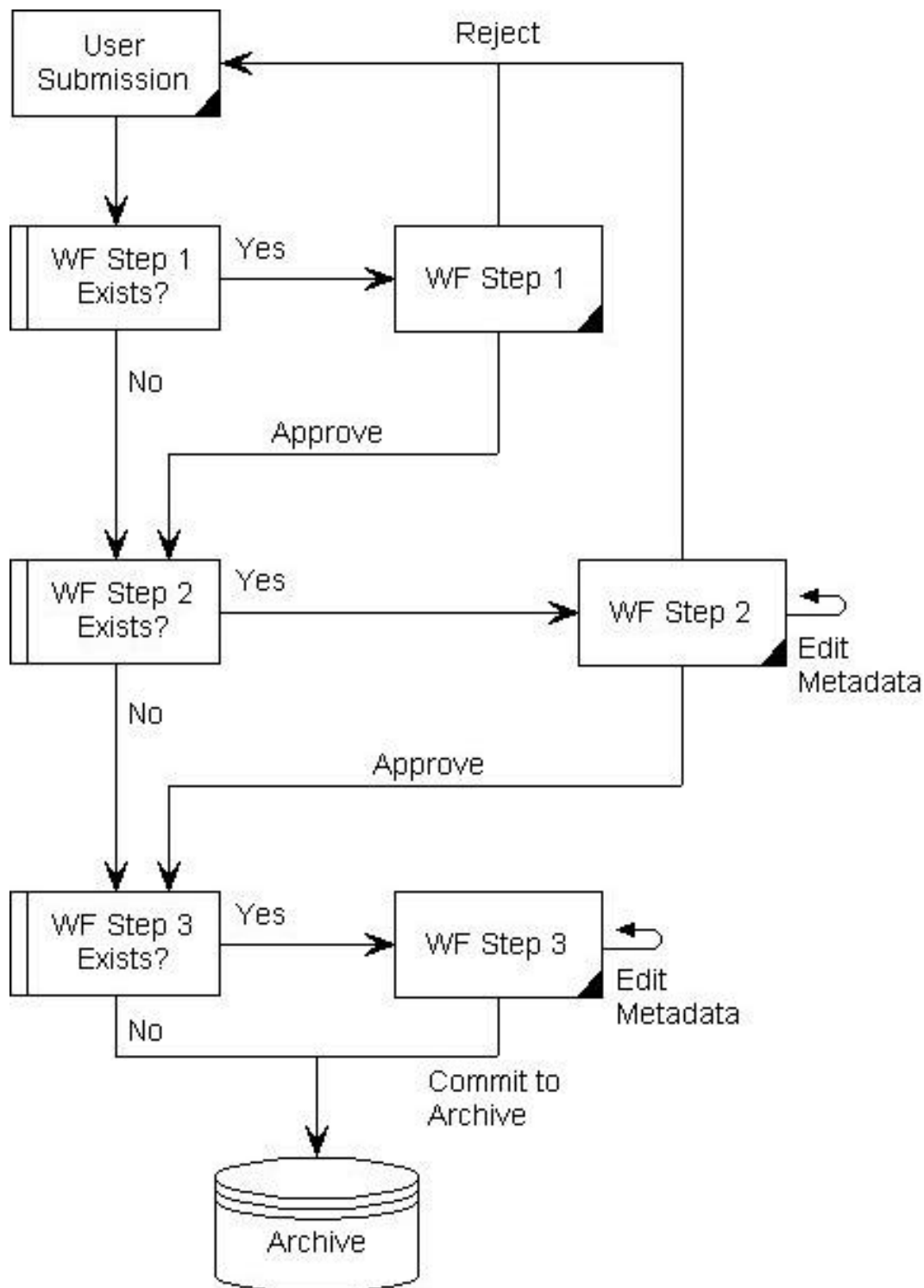


## Initial Proposal for DSpace Workflow Procedure for E-Theses

In order to provide a flexible workflow for the Theses Alive! project, which is applicable to most if not all submission systems, the following workflow is suggested, and ways of fitting it into the DSpace system are discussed.

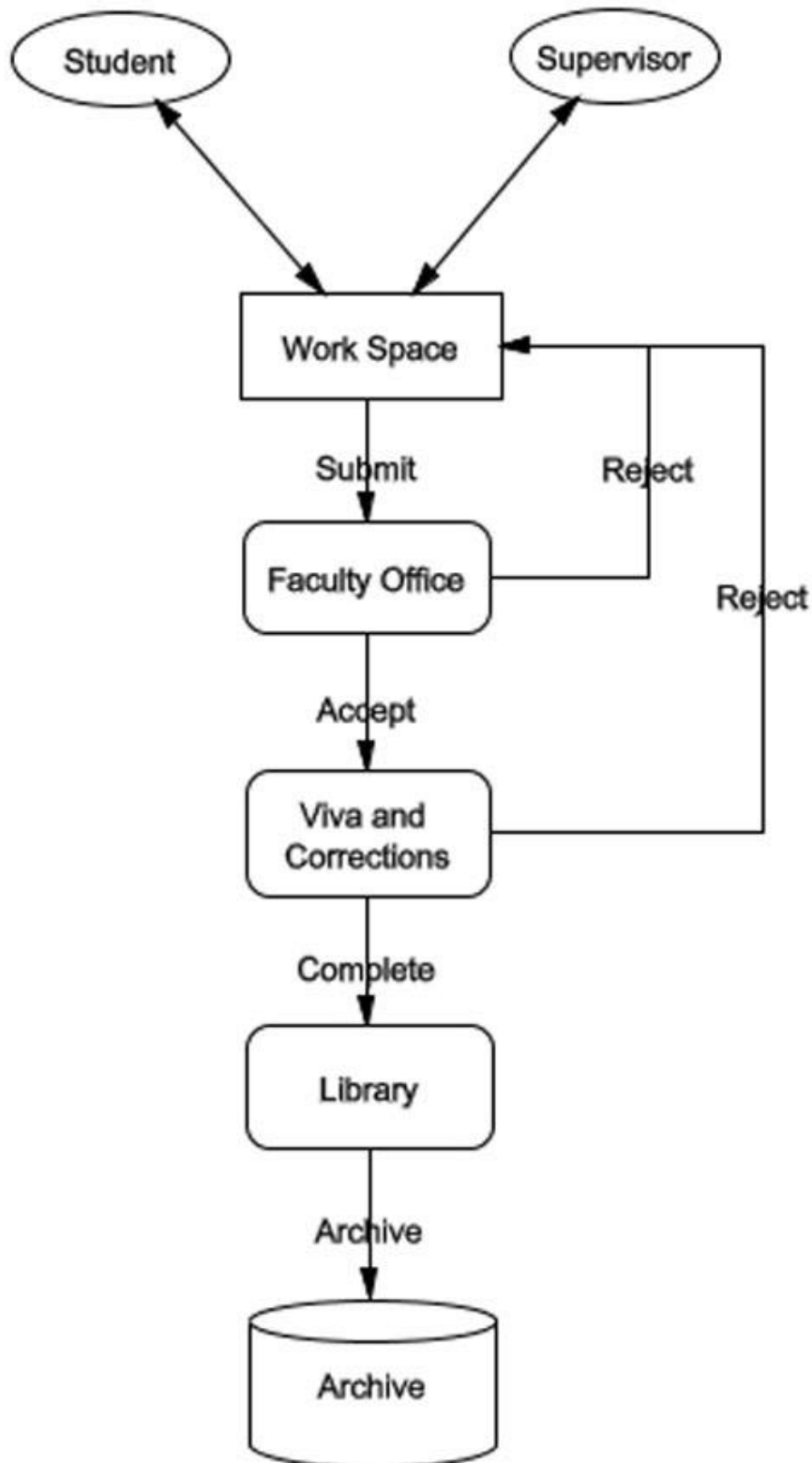
### Overall Workflow

The current workflow template that is built into DSpace looks like this:



We analyse each step within the workflow to see if there is any way to fit the procedures laid out within Edinburgh University for thesis submission into the template, with minimal modification.

The model that we have come up with looks as follows:



There are a number of important things to note:

First, we have introduced the concept of a *WorkSpace*. This is to allow the student and the supervisor to edit and observe the authoring of an ETD. This feature will have a number of properties which will be discussed in the section *WorkSpace*, in this document. Early suggestions are that this workspace will be attached to the system at the point in which DSpace handles “Unfinished” submissions. Modification of this feature to include a fully functional workspace should generate the least work of all the possibilities that exist, and will hopefully allow the feature to be “bolted on” to any DSpace install in the future. Feasibility of this is under investigation.

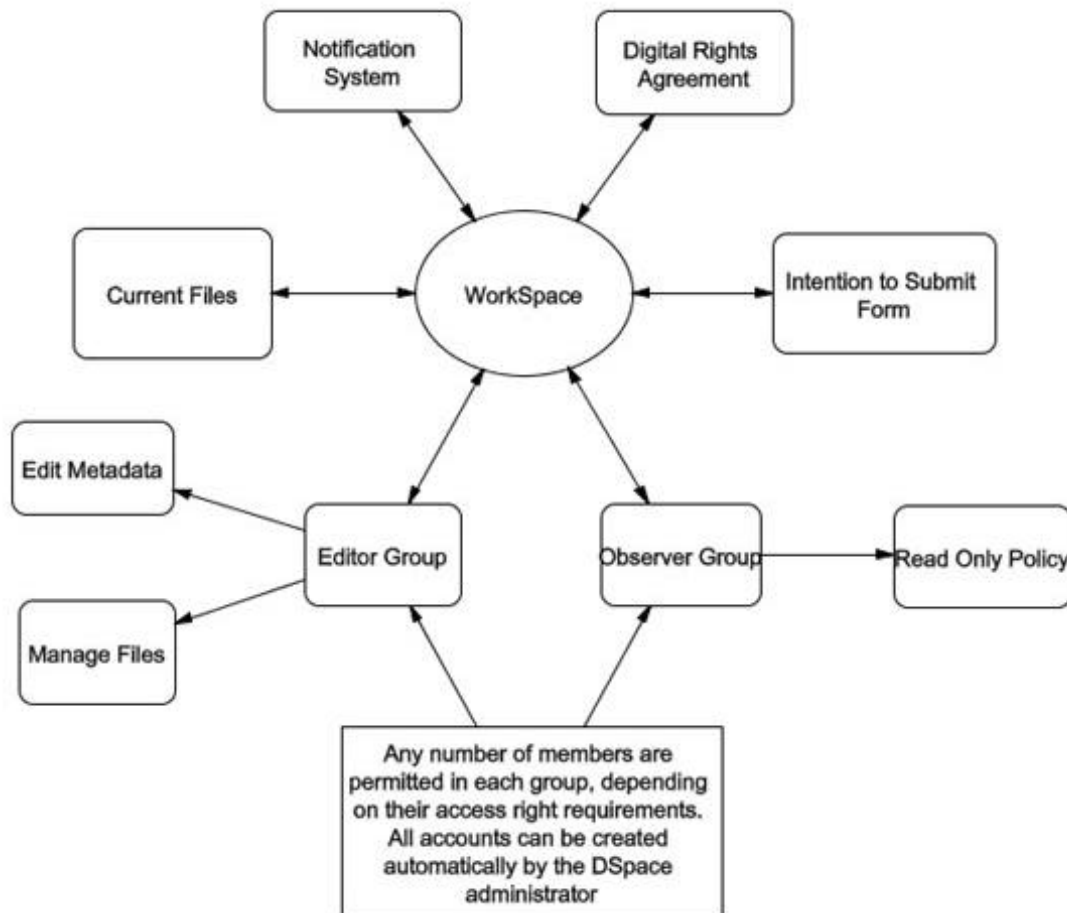
Second, we have replaced each workflow step with the name of the body or process that will be involved at each stage. For example, the Faculty Office, which traditionally takes the “soft bound copy” of the thesis occupies the position of Work Flow Step 1.

The specific functions of each of the steps are discussed in this document under the headings, *Faculty Office*, *Viva and Corrections*, and *Library*.

The general functionality of this workflow proceeds as follows: The student and the supervisors collaborate on the ETD authoring in the *WorkSpace*, which persists until such time as the student decides (generally under advisement from the supervisor) that it is ready for submission. Then a “soft bound copy” is delivered to the workflow step of the *Faculty Office*, who ensure that all the requirements for submission are met, before forwarding it on to the workflow step for *Viva and Corrections*. At this stage, the internal and external examiners examine the thesis and conduct the viva. In general, the result of a viva will involve some corrections, which is equivalent to rejecting the thesis back to the *WorkSpace* (along with a notice explaining what needs to be done). The student and the supervisor may once again collaborate on the corrections, before resubmitting again to the *Faculty Office*. The *Faculty Office* once again ensure that all the submission requirements have been met, and forward the ETD on to the *Viva and Corrections* step again. The internal and external examiners then check to ensure that the corrections are sufficient, before approving the thesis (along with notes to relevant parties that the thesis has been approved). The ETD then goes to a library team who will be responsible for ensuring that all archiving requirements are met, before depositing the ETD in the repository.

## **WorkSpace**

The specification of the work space can be represented as follows:



The workspace consists of a number of processes that are accessible to the two groups that are permitted to access it (the Editor Group and the Observer Group). These processes include:

- A Notification System: this allows the members of both groups to send messages to the system – this will allow for things such as advice for students from supervisors, or notification to supervisors from students about work progress etc.
- A digital rights agreement: the student will be required to accept this before submission can proceed past the workspace. This feature is already in place in DSpace, and can be modified for our purposes.
- An Intention to Submit Form: The student will be required to fill this in prior to submission to the workflow system.
- Current Files: All group members will be able to see the current files, and members of the editor group will be able to modify them. This feature should draw on facilities in place within the DSpace API.

The fundamental difference between the Editor group and the Observer group is that in general, we would want only one person to be able to edit files, but a number of people to be able to observe the thesis authoring progress. No assumptions are made, though, as to who will belong in each group, and in an ideal situation both the members of each group and the policies attached to will be decided upon by the DSpace administrator. The basic suggestion is

that the student, and perhaps the primary supervisor will be in the Editor group, whilst the secondary supervisor and independent advisor will be in the Observer group (this is naturally subject to requirements).

It should be possible to draw on current DSpace facilities for policy administration to manage these groups easily, and the primary focus of working on this will involve setting up the workspace as an object which can have policies attached to it.

### **Faculty Office**

The role of the faculty office is not yet fully understood, and we will be meeting with relevant people who will be able to help us define the workflow role and thus requirements of the faculty office.

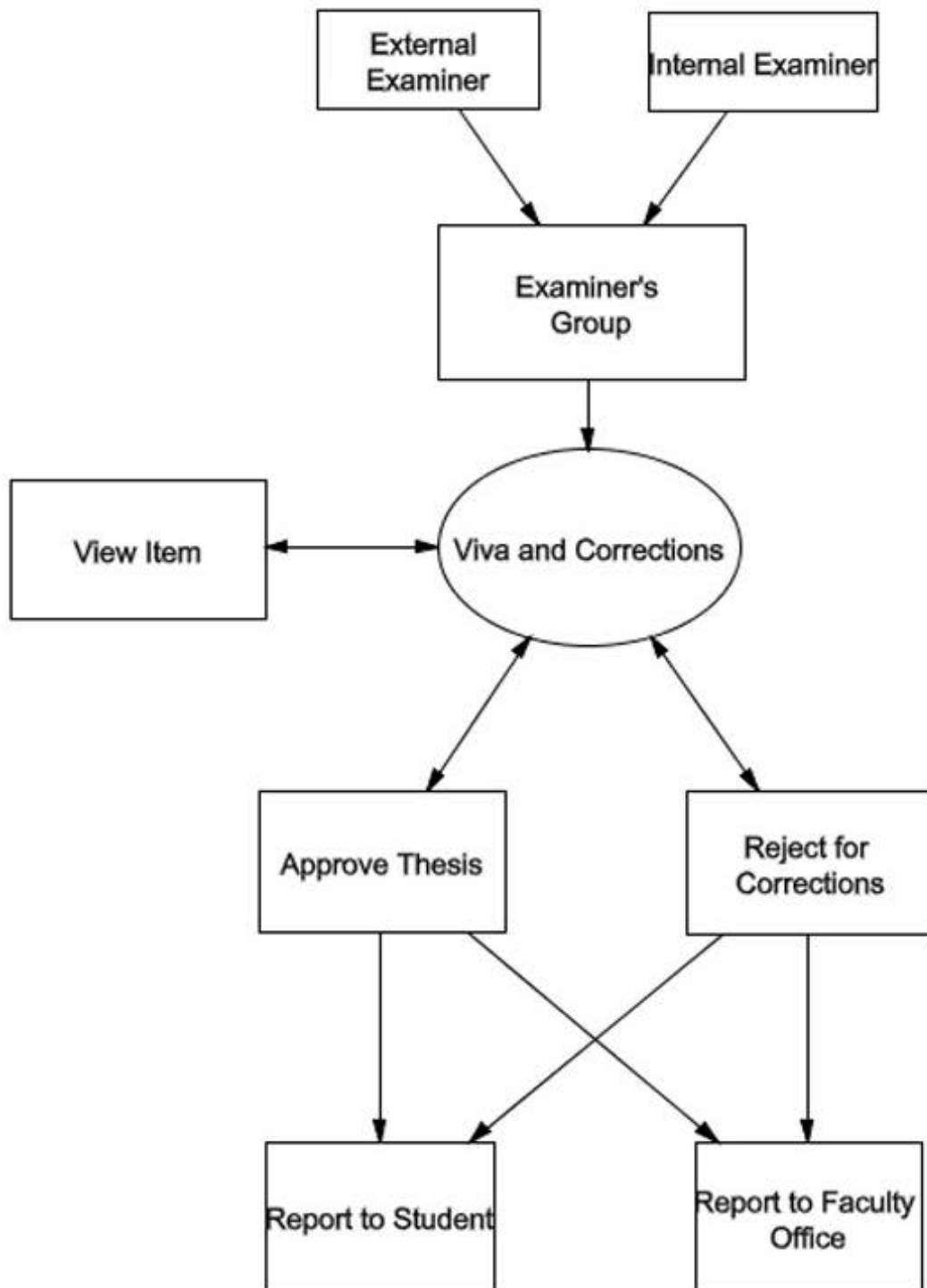
Currently, we understand that the faculty office requires: a signed copy of the thesis, and Intention to Submit form, and a number of copies of the abstract. It may be necessary for the faculty office to reject a thesis submission if their criteria for completeness are not met.

It will be necessary for the thesis to pass through the Faculty Office workflow step at least twice during any single ETD submission. This should not cause any problems, as there will be no editing work required, and provided that the submission criteria are met on both occasions then this stage should pass uneventfully.

What features would the faculty office need access to other than Reject or Approve?

### **Viva and Corrections**

The structure of the Viva and Corrections workflow step is as follows:

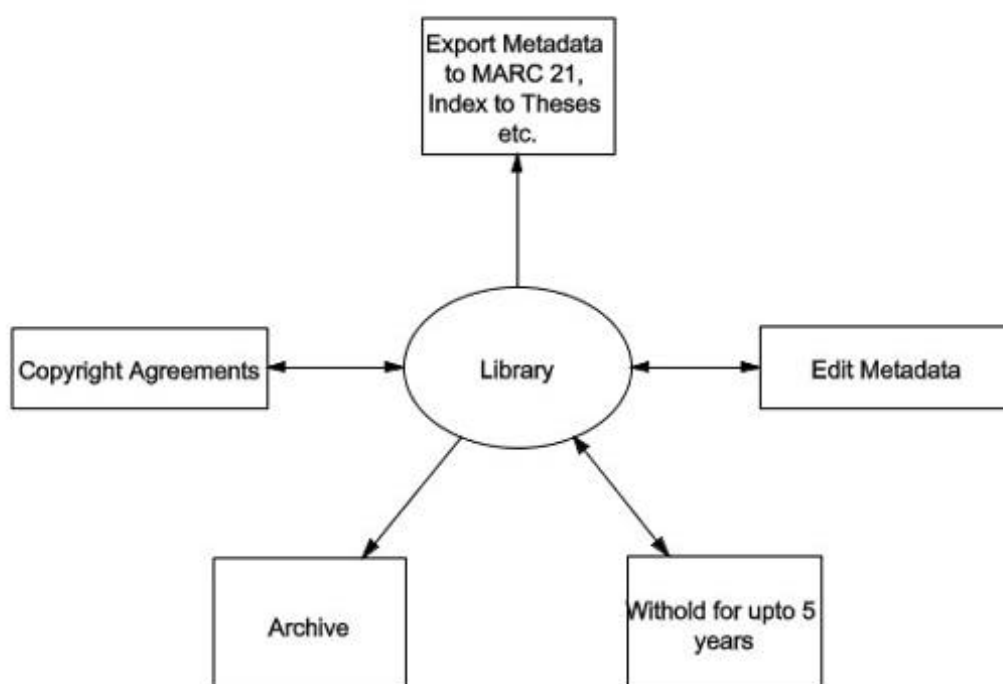


We require an Examiner's Group, which will form the basis of the workflow step. In this group both the internal and external examiner will be present, who will use this opportunity to read and appraise the thesis prior to the Viva. Once the Viva has taken place, the examiners may be asked to provide their feedback to the student and the Faculty Office online: to do this we would provide access to the notes module used in the *WorkSpace* (note, that I use "may" as we do not fully understand all the workings of this step yet).

The problems that we will encounter here are that we would like both examiners to have full access to the document while it is at this point, but DSpace requires a group member to “Accept” a task before they are given full rights to view the metadata (in an editable format). The result is that we must give some serious thought as to how to fix this step to do what we want, which will require the writing of a new type of workflow step template and possibly some modification to the way that DSpace allocates workflow and tasks.

## Library

The structure of the Library workflow step is as follows:



The library step will be performed by, in our case, Special Collections, who will perform the same operations on the ETDs as they would on the print version. They will check that the metadata is correctly formatted and filled in, and ensure that the copyright agreements are completed and signed (is there any way to do this electronically?).

Once the thesis is ready for inclusion in the archive, a number of other activities will be available: it will be possible to export the metadata into other formats, including MARC 21, and other XML formats specified by institutions who would be interested in having copies of our records. There must also be the option to withhold the thesis for up to 5 years at the author’s request, before deploying it into the archive.

In order to achieve this step, we will need to modify the standard DSpace workflow template to include the extra options. We will also need to custom

write all the XSLT required to transform our DC records into the relevant records required by other institutions. The withhold option on a thesis will need more thought as there is currently no way of storing a record in the database which cannot be accessed via the front end. A workaround would involve storing the document at this workflow step until such time as it is ready to be released.