# Oxford Talks Integration Proposal

There are several steps needed to launch Oxford Talks as an official University system. These come under three broad categories: setting up the website on NSMS hosting; setting up the event trawling and aggregation system; and working with departments to improve the breadth and quality of events data. The first two are vital, and the second highly recommended, to make Oxford Talks a successful part of Oxford University infrastructure.

The proposals here break down these categories, and give time required for each step.

None of these steps involve adding new features to the Oxford Talks website itself, however there are some improvements which could be made to Oxford Talks which are listed towards the end of this document.

## NSMS Hosting

1. Moving existing website source code into SVN/git central repository, so that it is widely accessible and maintainable in future (0.5 days)
2. Setting up and configuring Apache, MySQL and other necessary components to have the basic site running on http://talks.ox.ac.uk (4 days)
3. Setting up and configuring SSO (Single Sign On with kerberous support), LDAP and email so the site integrates well with other University Systems. This will be done in conjunction with OUCS (3 days)
4. Transferring the existing database (including old users, talks and lists) from the Linacre system to NSMS (1 day)

## Trawling and Aggregation Systems

The aggregation system is responsible for automatically populating Oxford Talks with a wide range of events from various University webpages and systems, and making sure that any changes to those events are reflected promptly on Oxford Talks.

The aggregation system consists of a range of trawlers, which regularly and automatically pull events from individual university systems (typically using iCal). These events are feed into a central aggregation system which attempts to remove duplicates and match the events with those listed on Oxford Talks already. Once this matching is completed, it issues create, update and delete instructions to Oxford Talks, so that the public events listed on the site match those on other University systems. This way Oxford Talks can be automatically populated with events from right across the University and keep them up to date.

The system runs independently of Oxford Talks. If Oxford Talks is redeveloped from scratch, the trawling and aggregation system would still work and be useful.

Here is a breakdown with estimated number of days of work for each step.

### Central Aggregation

1. Creating central infrastructure for cross matching events data from other University systems with the events on Oxford Talks. (3 days)

### Trawlers

1. Creating generic iCal trawler, and a method for easily adding new iCal links. This will involve adding support for images, speakers and lists, which iCal does not support out-of-the-box. Note, this will give us the ability to trawl any public Google Calendar events (used by some groups and societies around the University), and will also form the backbone of other, more sophisticated, trawlers. (1.5 days)
2. Working with Anne Bowtell to integrate events from the Medical Sciences Division into Oxford Talks. This will also require a few steps:
3. Focussing on those MSD events which are already available through iCal links, and integrating these into Oxford Talks (0.5 days, once the iCal trawler above is developed)
4. Developing a trawler for the OxItems system, where many other MSD events are stored. This will, as a by product, bring in many other events from other departments (1.5 days).
5. Possibly look at other events in MSD, stored in other formats. This will require further investigation before proposing a time frame.

## Other Departments

Oxford Talks becomes exponentially more useful as more events are added. Each department that chooses to add events to the system benefits students at all other departments, as well as their own. With more departments on board, Oxford Talks will clearly demonstrate the range of academic research and studies carried out at Oxford, creating an excellent advertisement (and fair representation) for what is available here for University members.

I propose working with other departments/divisions, with assistance from Anton to champion the site among academics, to integrate other seminar series into Oxford Talks. For each department, this would involve two steps: modifying existing departmental systems to export their events data in a standard format (I insisting strongly on iCal); and some minor additions to our trawling infrastructure to automatically pull the events data into Oxford Talks (typically just adding entries to the configuration).

For this process, I would budget 1-2 days per department on average, depending on how integrated their current seminar series systems are. This time would mostly be spent working with the department to export their events data. For departments with sophisticated events management systems (such as those in MSD) it would take much less time.

For reference, here are some estimates for popular departments that Oxford Talks has trawled events from in the past. The time required to integrate each department is estimated based upon the assumption that they buy-in to the idea, combined with an estimate of how sophisticated their current events management systems are. These estimates may be revised once more is known about their systems, and I'm happy to draw up further estimates of other departments.

1. Economics (<http://www.economics.ox.ac.uk/index.php/seminars>) 2 days
2. The Mathematical Institute (<http://www.maths.ox.ac.uk/events/seminars/upcoming/>) 1 day
3. The Oxford Man Institute (<http://www.oxford-man.ox.ac.uk/events/seminars>) 0.5 - 1 days
4. Department of Physics (<http://www2.physics.ox.ac.uk/research/seminars>) 2 days
5. Department of Chemistry (<http://www.chem.ox.ac.uk/faculty/colloquia.html>) 3 days
6. Department of Computer Science (<http://www.cs.ox.ac.uk/seminarsEvents.html>) 1 day
7. Department of Statistics (<http://www.stats.ox.ac.uk/news_and_events>) 3 days
8. Oxford Martin School (<http://www.oxfordmartin.ox.ac.uk/events/forthcoming>) 2 - 3 days

## Improvements to the Oxford Talks Site itself

The following suggestions are feature improvements, and not immediately vital for the success of Oxford Talks. However, they touch on areas that OUCS is very keen to see developed, so might be considered as medium as opposed to shorter term goals.

1. Better integration with Mobile Oxford. Currently Mobile Oxford pulls one list off of Oxford Talks. In future, it would be better to use Oxford Talks list system to categorise events by subject and by student type (graduate, undergraduate etc) to provide more specific events information on the limited screen space of the mobile.
2. Integration with the OUCS OxPoints system, so that the higher resolution geolocation data can be used to improve the quality of service for users. For example, the system could not only give you the address of an event, but the location of the precise lecture theatre within a college. This would also assist with the Mobile Oxford integration, as that platform would be able to recommend events near to your GPS location!

## Terminology

1. Apache: The webserver which runs Oxford Talks.
2. iCal: An open format, widely supported, for storing events data in a file. There are many software packages for creating iCal files, and they can downloaded via a link automatically. These files are the easiest method for getting events from a departmental system into Oxford Talks. For the technical specification, please see: <http://www.ietf.org/rfc/rfc2445.txt>
3. LDAP: Lightweight Directory Access Protocol, a network service for looking up members of the University, and identifying their department, college and other associations. This is used to recommend events to them.
4. MySQL: The database in which Oxford Talks stores its data.
5. Ruby (on Rails): The programming language and web framework which Oxford Talks is built upon.