



# Making RSS newsfeeds work for your department/college

Barry Cornelius  
Computing Services  
University of Oxford

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## 1 Welcome

### 1.1 Welcome to this workshop







- This document is available at <http://www.oucs.ox.ac.uk/oxitems/presentations/itss2006/>
- I'm Barry Cornelius.
- I work for Computing Services (OUCS).
- I spend half of my time working for the Information Services team of OUCS ...
- ... and the other half working for OSS Watch, the national advisory service for UK HE and FE institutions on free and open source software.
- I've been at Oxford for about 15 months, and was previously at the University of Durham.

## 2 Newsfeeds

### 2.1 Newsfeeds: what are newsfeeds?

- Establishing newsfeeds is a relatively new mechanism for delivering information.
- Essentially, a newsfeed is a collection of related items.
- Many web sites are providing newsfeeds.
- For example, the BBC has several newsfeeds, one for UK News, one for World News, ... .
- The web page <http://news.bbc.co.uk/1/hi/help/3223484.stm> provides links to some of the BBC's newsfeeds.

### 2.2 Newsfeeds: how can I detect them?

- There are several icons that indicate a newsfeed is available from a web site, e.g. ,  and .
- If you click on a  or a , you will often be taken to a web page containing the code of the newsfeed.
- For example, click on the  icon in the *Events* section of <http://www.oss-watch.ac.uk/>
- From the output, you can see that newsfeeds are coded using a markup language.
- Hidden away in all this markup is a list of items.
- **You do not need to understand this markup.**
- In the Location textbox of your browser, you will find the URL of this newsfeed (often ending in `.rss` or `.xml`).
- For the OSS Watch Events newsfeed, it is: <http://www.oss-watch.ac.uk/rss/events.rss>
- The URL will be useful if you want to subscribe to the newsfeed (as we will see later).

### 3 Reading a newsfeed

#### 3.1 Reading a newsfeed: overview

- There are many ways in which you can read a newsfeed.
- Usually it is a two stage process.
- First, you tell a newsfeed reader which newsfeeds you want to read.
- Then the newsfeed reader will do the hard work of getting the items of the newsfeeds and delivering the information to you.
- From time to time, the newsfeed reader will get new items.
- Although newsfeed readers work in different ways, the crucial idea is: when you wish to see the latest news, you do not have to visit each of the websites.

#### 3.2 Reading a newsfeed: from a Google page

- There are web sites where you can subscribe to newsfeeds, e.g., Google, Bloglines, Yahoo!
- First go to <http://www.google.co.uk/>
- Then use the link labelled *Personalised Home*.
- If you are not logged in, use the link labelled *Sign in*.
- You will need a Google account: you can use a Google Mail e-mail address or some other e-mail address.
- You can subscribe to a newsfeed by using the *Add Content* link.

#### 3.3 Reading a newsfeed: using Bloglines

- Besides Google, there are other places where you can subscribe to newsfeeds.
- Another one that I've used is <http://www.bloglines.com/>
- Once again, you have to register using an e-mail address.

#### 3.4 Reading a newsfeed: other ways

- There are many other ways of reading a newsfeed:
  - Some web browsers (e.g., Firefox) allow you to establish a *live bookmark* to the URL of a newsfeed.
  - Although currently Internet Explorer does not have this facility, something similar will be in IE 7.
  - Some email clients (e.g., Opera Mail and Thunderbird) allow you to get the items of a newsfeed delivered into the email client like ordinary messages.
  - You can install a feedreader program, e.g., Awasu, NewsGator, NewzCrawler
  - If you know how to create web pages, you could provide one that displays the contents of a newsfeed.
  - If you can create resources in WebLearn, you can set up a resource that is a *news feed display*.

#### 3.5 Reading a newsfeed: using Firefox

- Some web browsers (e.g., Firefox) allow you to establish a *live bookmark* to the URL of a newsfeed.

#### 3.6 Reading a newsfeed: using Thunderbird

- Some email clients (e.g., Thunderbird) allow you to get the items of a newsfeed delivered into the email client like ordinary messages.

#### 3.7 Reading a newsfeed: using a program

- You can install a feedreader program.
- Examples are:
  - **Linux:** Akregator, NewsFeed
  - **Macs:** NetNewsWire, Newsfire
  - **Windows:** Awasu, FeedDemon, Newz Crawler, RssReader

### 3.8 Reading a newsfeed: from a web page

- At the point in the web page where you want to output a newsfeed, include something like:

```
<script type="text/javascript"
src="http://rssxpress.ukoln.ac.uk/lite/viewer/?
rss=http://www.jobs.ac.uk/rss/disc/0700.xml">
</script>
```

where all the text between `src="` and `">` should be on one line (with no spaces). Replace the URL `http://www.jobs.ac.uk/rss/disc/0700.xml` by the URL of the newsfeed that interests you.

- This uses a facility provided by UKOLN that first goes off to the website containing the newsfeed and then displays the news items as a web page.
- Here is a link to a web page containing the above code:
- <http://www.oucs.ox.ac.uk/oxitems/presentations/itss2006/jobs.html>

### 3.9 Reading a newsfeed: from WebLearn

- If you have a WebLearn account, you can read a newsfeed from WebLearn.
- My area is <http://www.weblearn.ox.ac.uk/site/testarea/asuc/barry/>
- In WebLearn, to create a newsfeed resource, use the *Create a new resource here* link.
- Then use the *News Feed Display* link.
- Then enter some appropriate values in the *Name*, *Title* and *Description* boxes.
- In the *URL of Feed* box, you need to enter the URL of the newsfeed, e.g.:  
`http://www.jobs.ac.uk/rss/disc/0700.xml`
- Then use the *create now* button.
- That has created the resource.

### 3.10 Reading a newsfeed: from WebLearn

- The new resource can be viewed by using the *Back to menu of resources* link and then scrolling to the bottom of this screen.
- It is best to configure the resource to display the titles of each item as links.
- This can be done as follows.
  - Find the *Manage* link that is associated with the new resource.
  - Click on this link.
  - Then use the *Modify News Feed Display* link.
  - Ensure that the box to *display summary entries, if available* is checked.
  - Ensure that the box to *display the titles as links* is checked.
  - Ensure that the box to *display the title of each entry* is checked.
  - Click on *Save* and then revisit the menu of resources.

## 4 Formats

### 4.1 Newsfeed formats: numerous standards

- As has already been mentioned, newsfeeds are coded using a markup language.
- Unfortunately, there are several markup languages that are often used.
- They include: RSS 1.0, RSS 2.0, Atom 0.3, Atom 1.0.
- You can see examples of the first three by visiting the following:  
<http://ramble.oucs.ox.ac.uk/blog/stuart/rdf.xml>  
<http://ramble.oucs.ox.ac.uk/blog/stuart/rss.xml>  
<http://ramble.oucs.ox.ac.uk/blog/stuart/atom.xml>

## 4.2 Newsfeed formats: who will win?

- Atom 1.0 was released in August 2005.
- My view is that Atom 1.0 will become more dominant.
- Reasons are given at <http://www.oucs.ox.ac.uk/oxitems/formats/>

## 4.3 Newsfeed formats: does it matter?

- Does it matter that there are numerous formats?
- Although it is useful to know that there are different formats, in many respects it is irrelevant.
- This is because many readers will read most formats.

# 5 Introducing OXITEMS

## 5.1 What is OXITEMS?

- One aspect of the OUCS 5 year plan is to *establish and promote a service for creating, publishing and aggregating RSS news items across the university, including the description of event data ...*
- So OUCS has recently been producing a newsfeed system that members of the University can use to store news items.
- It is called *OXITEMS*.
- It assumes that any unit of the University may want to create news items.
- Here the word *unit* means any department, college, society, club or some other project.
- Work started on OXITEMS last August.
- It was first released last December.
- On 8th December, I gave a talk to ITSS and demonstrated what it could do.

## 5.2 Using OXITEMS to set up newsfeeds

- An OXITEMS newsfeed can be set up by someone that OXITEMS has been told is the *administrator* of the unit.
- Automatically, the main ITSS person of a unit is an OXITEMS administrator for that unit.
- That person (and any member of Computing Services) can add other people as administrators for that unit.
- An administrator can use OXITEMS to set up newsfeeds without any involvement of Computing Services.
- For example, the ITSS people of History, Materials and Zoology have set up the newsfeeds:  
`histfac/jobs`, `histfac/medieval`,  
`mat/news`, `mat/seminars`, `mat/jobs`,  
`zoo/seminars`, `zoo/studentships`.
- The Press and Information Office has set up:  
`offices/university-news`.

## 5.3 Societies/clubs can also produce newsfeeds

- For societies and clubs, the username associated with the society/club is an OXITEMS administrator for that society/club.
- So a person who authenticates with that username can set up newsfeeds (without any involvement of Computing Services).
- He/she can also add other people as administrators for the society/club.
- For example, a person who has webauthed with the username `ouoc` has set up the newsfeeds:  
`clubs/ouoc/news`,  
`clubs/ouoc/socials`,  
`clubs/ouoc/training`.

## 5.4 OXITEMS uses three levels of authorisation

- It is appropriate for one or two people in a unit to control what newsfeeds can be set up.
- E.g., to ensure a sensible naming scheme is employed.
- The administrator can delegate the day-to-day running of a newsfeed to another person (called a *manager*).
- For example, the administrator could make the head of a research group the manager of a newsfeed.
- The latter can in turn allocate *authors*, people who add news items to the newsfeed.
- Although OXITEMS provides three roles (administrators, managers, authors), this need not be too much bureaucracy: ...
- ... when an administrator creates a new newsfeed, they can quickly establish the initial values of the manager and the authors.

## 6 An example of the use of OXITEMS

### 6.1 Example: setting up a new newsfeed

- Suppose some department (or college) has a web site.  
`http://www.oucs.ox.ac.uk/oxitems/demopages/zero.html`
- Suppose they want to produce a newsfeed.
- The main ITSS person of the department can do this.
- He/she needs to go to OXITEMS's web page which is  
`https://rss.oucs.ox.ac.uk/oxonly/oxitems/`
- As this is webauthed, it is available from anywhere.
- Then they select the *Add an ordinary newsfeed* link.
- They need to enter information such as the name of the newsfeed, its title, its description, who is going to manage the newsfeed, and so on.
- For example, if the person is in Medical Sciences, they could set up a newsfeed with a name like `medsci/news`.

### 6.2 Example: adding an item to the newsfeed

- Having set up the newsfeed, they will want to add an item to the newsfeed.
- Once again, this can be done from the OXITEMS's web page  
`https://rss.oucs.ox.ac.uk/oxonly/oxitems/`
- This time, use the *Add an item* link.
- Enter the news item, preview it and then add the news item to the newsfeed.

### 6.3 Example: reading the newsfeed

- There are two steps for displaying a newsfeed in a web page.
- First add the following to the head of the web page:  

```
<script type="text/javascript"
src="http://rss.oucs.ox.ac.uk/oxitems/
output_newsfeed.js"
language="JavaScript">
</script>
```
- And then, at the point in the web page where you want to output a newsfeed, include something like:  

```
<script type="text/javascript">
output_newsfeed("medsci/news", "1")
</script>
```
- The `, "1"` means only display the latest item: leave it out if you want all of the unexpired items.

## 6.4 Example: reading the newsfeed

- The University's Press and Information Office displays its news stories at:
- <http://www.ox.ac.uk/news/>
- These news stories come from the `offices/university-news` newsfeed.
- Suppose the department also wants to output some items of this newsfeed on its home page.
- Again, include something like:

```
<script type="text/javascript">
output_newsfeed("offices/university-news", "1")
</script>
```

- Here is a link to a new version of the home page:
- <http://www.oucs.ox.ac.uk/oxitems/demopages/two.html>

## 6.5 Example: coping with disabled JavaScript

- The above code assumes the visitor's browser has JavaScript enabled.
- We need to provide an alternative if JavaScript has been disabled.
- Here is some code that deals with both possibilities: enabled or disabled.

```
<script type="text/javascript">
output_newsfeed("offices/university-news", "1")
</script>
<noscript>
<p>JavaScript is not enabled.
Either enable it or use this link:
<a href="http://rss.oucs.ox.ac.uk/offices/unive
rsity-news/newsfeed.html">University News</a>.
</p>
</noscript>
```

## 6.6 Example: advertising the newsfeed

- You should add to the `<head>` element of the HTML page an element like the following:

```
<link href=
"http://rss.oucs.ox.ac.uk/oucs/news/rss10.xml"
rel="alternate" type="application/rss+xml"
title="OUCS News">
```

This causes some browsers to output an icon indicating that a newsfeed is available from this page.

- Alongside the output of the newsfeed, you should display a button providing access to the newsfeed's URL:

```
<a href=
"http://rss.oucs.ox.ac.uk/oucs/news/rss10.xml">
<img src=
"http://www.oucs.ox.ac.uk/images/rss.png" />
</a>
```

## 6.7 Example: using an events newsfeed

- Besides ordinary newsfeeds, OXITEMS has *events newsfeeds* that are better at handling events.
- If you add an item to an events newsfeed, OXITEMS will ask you for lots of information about the event.
- The RSS/Atom formats do not have elements for describing events.
- One could augment the RSS/Atom with XML describing an event. However, would feedreaders understand whatever XML you supplied?
- It is better to include HTML describing the event in the `description` element of an RSS feed or the `content` element of an Atom feed.
- The feedreader can use this HTML to render details about the event.

## 6.8 Example: outputting an events newsfeed

- As with ordinary newsfeeds, `output_newsfeed` can be used to output an events newsfeed:

```
<script type="text/javascript">
output_newsfeed("running/events-demo", "",
"", "", "", "Astartdate");
</script>
```
- Because people will want to output different things and in a different order, you can give OXITEMS a template for the HTML produced by `output_newsfeed`.
- If you do not provide a template, a default is used.
- The above call of `output_newsfeed` is used at:
  - <http://www.oucs.ox.ac.uk/oxitems/pages/events-demo.html>
  - Use this link to see an example of the output.

## 6.9 Example: more about templates

- Go to <http://rss.oucs.ox.ac.uk/oxitems/templates/events-default.tpl> to see the code of the default template.
- We decided not to use one of the recognised templating languages, such as Smarty (from <http://smarty.php.net/>), because it allows people to do too many things.
- Instead we have invented our own templating language.
- It just has variable substitution and choose statements.

## 6.10 Example: conforming to hCalendar

- It is best if the HTML conforms to the *hCalendar* specification (<http://microformats.org/wiki/hcalendar>).
- It is then possible for others to *scrape* the RSS/Atom to produce an *iCalendar* file (<http://en.wikipedia.org/wiki/ICalendar>).
- iCalendar files enable event information to be imported into calendaring programs, such as Apple iCal, Google Calendar, Lotus Notes, Microsoft Outlook, Oracle Calendar or WebCalendar.
- As the output from <http://www.oucs.ox.ac.uk/oxitems/pages/events-demo.html> shows, OXITEMS provides two ways of producing iCalendar files from its newsfeeds.

## 6.11 Example: another events newsfeed

- Another example of the use of events is at <http://www.oucs.ox.ac.uk/rts/talks/>
- This page displays the events of the events newsfeeds `oucs/rts-talks`.
- The first table extracts future events from the newsfeed and displays them using the template:
  - <http://www.oucs.ox.ac.uk/rts/talks/next.tpl>
- The second table extracts previous events and displays them using the template:
  - <http://www.oucs.ox.ac.uk/rts/talks/prev.tpl>
- If you use one of the *Abstract* links, you will be taken to a page displaying all of the items.
- This uses the template <http://www.oucs.ox.ac.uk/rts/talks/abstracts.tpl>

## 7 Other issues

### 7.1 Other issues: adding categories

- When an author is adding an item, OXITEMS allows the author to *categorise* the item.
- For example, if you are providing news items for a department which has several research groups, you might wish to add a category to each item to say that it is about a particular research group.
- Having categorised each item of a newsfeed, it is possible for people to obtain from your newsfeed those items referring to a particular category.
- For example, the University's Press and Information Office add the category `research` to any news stories that are about *research*.
- So research items can be obtained using:

```
<script type="text/javascript">
output_newsfeed("research@offices/university-news")
</script>
```
- As both RSS 2.0 and Atom 1.0 have a `category` element, the appropriate category elements will be provided when someone requests a newsfeed in either of these formats.

### 7.2 Other issues: automatic email of news items

- When you set up a newsfeed, you can associate an email address with the newsfeed.
- Typically, this would be the email address of a mailing list.
- Every time an item is added to the newsfeed, details of the item are also sent to the email address.
- If the newsfeed is an events newsfeed, the message has an attachment giving the details of the event in the *iCalendar* format.
- The message is sent from the person who added the item to the newsfeed.

### 7.3 Other issues: aggregating newsfeeds

- You can ask OXITEMS to display the result of combining the items of two or more newsfeeds.
- You can do *aggregation* by using a comma-separated list for the name of the newsfeed. One example is:

```
<script type="text/javascript">
output_newsfeed("oucs/news,ict/ict-news")
</script>
<noscript>
<p>JavaScript is not enabled.
Either enable it or use this link:
<a href="http://rss.oucs.ox.ac.uk/oucs/news,ict/
ict-news/newsfeed.html">Aggregated Newsfeeds</a>.
</p>
</noscript>
```
- Another example is:

```
http://rss.oucs.ox.
ac.uk/oucs/news,ict/ict-news/rss10.xml
```



## 7.4 Other issues: feed validation

- It is tricky to ensure that a newsfeed system is generating RSS/Atom that is correct.
- The following web site provides you with the ability to get an RSS 1.0, RSS 2.0 or Atom 1.0 newsfeed validated  
<http://feedvalidator.org/>
- For example, the OXITEMS newsfeed for OUCS News is accessible at  
<http://rss.oucs.ox.ac.uk/oucs/news/rss10.xml>  
It can be validated by going to  
<http://feedvalidator.org/check.cgi?url=http://rss.oucs.ox.ac.uk/oucs/news/rss10.xml>

## 8 Real uses of OXITEMS

### 8.1 [www.ox.ac.uk](http://www.ox.ac.uk)

- The University's Press and Information Office produces news stories every day.
- Go to <http://www.ox.ac.uk/>
- The text at the top right underneath *Latest news* is produced by outputting the first item of an OXITEMS newsfeed (called `offices/university-news`).
- If you use the link labelled *More news stories*, you will be taken to the web page  
<http://www.ox.ac.uk/news/>
- All the items of the newsfeed are displayed on this page.

### 8.2 [www.history.ox.ac.uk](http://www.history.ox.ac.uk)

- Go to <http://www.history.ox.ac.uk/>
- Choose *Current Job Vacancies* from the *Staff* menu.
- That takes you to <http://www.history.ox.ac.uk/faculty/jobs/index.htm>
- The information on this page is generated from reading the OXITEMS newsfeed `histfac/news`.

### 8.3 [www.zoo.ox.ac.uk](http://www.zoo.ox.ac.uk)

- Go to <http://www.zoo.ox.ac.uk/>
- On the right hand side of the page under the headings *News*, *Seminars* and *Studentships*, three OXITEMS newsfeeds are output (`zoo/news`, `zoo/seminars` and `zoo/studentships`).

### 8.4 [www.ouls.ox.ac.uk/hcl](http://www.ouls.ox.ac.uk/hcl)

- The *Health Care Libraries* provides services to the staff and students of the University's Medical Sciences Division and to staff of local healthcare organisations and Trusts.
- It provides a main web page at <http://www.ouls.ox.ac.uk/hcl/>
- The area with the light blue background has been generated from the `medsci/hcl` newsfeed.

### 8.5 [www.materials.ox.ac.uk](http://www.materials.ox.ac.uk)

- Go to <http://www.materials.ox.ac.uk/>
- At the bottom left hand side of the page, use the *Information* link.
- The *info and news page* appears.
- In the menu on the right hand side, use the *Recent News RSS* link.
- The *Newsfeeds* page at <http://www.materials.ox.ac.uk/infoandnews/newsfeeds.html> appears.
- On this page, three newsfeeds are output:  
`mat/news`, `mat/seminars` and `mat/jobs`.

## 9 And finally

### 9.1 Some conclusions

- Many web sites of departments/colleges already provide news and/or events on their web pages.
- The advantages of using some newsfeed system such as OXITEMS are:
  - If you currently provide news/events by editing web pages, then this system is a lot easier to use as the information is provided by filling in a form.
  - It is possible to allocate other people to enter items of news/events.
  - Although items expire, they are still retained: so you have a record of what's happening in your department/college.
  - The use of RSS/Atom allows consumers to choose how they get the information.

### 9.2 Questions

- It's time for your questions.

### 9.3 Thank you

- I would like to thank those units that were *early adopters* of OXITEMS.
- I would also like to thank those IT Support Staff who have contributed to the development of OXITEMS. Ideas triggered by people outside OUCS include:
  - items being automatically sent to a mailing list;
  - the ability to add categories to an item;
  - what information to store about an event;
  - using hCalendar when outputting an event.
- Metadata:
  - *Making RSS newsfeeds work for your department/college*
  - Barry Cornelius, Computing Services,  
University of Oxford
  - `barry.cornelius@oucs.ox.ac.uk`
  - `http://www.oucs.ox.ac.uk/oxitems/`