



Open eLearning Content Observatory Services

## Tutorial: SEARCH & FIND Open Educational Resources (OER)

December 2007

### About the tutorials:

Please note, that this tutorial (December 2007) is based upon web based information (<http://www.olcos.org/tutorials/>). It could be that the contents and links in this tutorial change, e. g. for technological changes. The latest version of the tutorial can be found on the Internet: [http://wikieducator.org/Open\\_Educational\\_Content](http://wikieducator.org/Open_Educational_Content)



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## Open Educational Content – Introduction and Tutorials

A collaborative development with the OLCOS project consortium ([www.olcos.org](http://www.olcos.org)).

The term **Open Educational Resources (OER)** stands for are educational materials and resources offered freely and openly for anyone to use. The OLCOS Tutorials intend to support students and teachers in the creation, re-use and sharing of eLearning material. Management staff will find information about how to implement open learning policies and activities in their institution.

### OLCOS (Open eLearning Content Observatory Services):

This tutorial is based on the work of people within the project OLCOS ([www.olcos.org](http://www.olcos.org)).

The project aims at building an (online) information and observation centre for promoting the concept, production and usage of open educational resources, in particular, open digital educational content (ODEC) in Europe. OLCOS was co-funded by the European Union under the eLearning Programme (Duration January 2006 - December 2007). Please feel free to contact [info@olcos.org](mailto:info@olcos.org) if you have suggestions for, or questions about the tutorials.

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### eLearning

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## Objectives:

This tutorial offers you practical information, advice, and guidance how to search and find open content.

- It will show you efficient ways of searching the Internet for relevant information, resources and Open Educational Resources (OER) that meet your needs.
- The tutorial will also provide you with some ideas on how to keep yourself up-to-date about resources you are interested in.

Depending on your prior knowledge it will take you less than an hour to work through the whole tutorial with all its assignments.

## 1. Introduction



*Apples from Koehler's Medicinal-Plants 1887. Public domain. Source: Wikipedia (<http://en.wikipedia.org/wiki/Image:Koeh-108.jpg>)*

In a project a group of students is working on a short presentation about pollination of apples. For that, they are trying to find materials that they can use for a project webpage. They do not only want to collect hyperlinks, but want to re-use the materials.

For that purpose, they need more information and help. Try to help them with the following information!

## 2. Searching Open Content with search engines

### Effective search with search engines

(If you are already familiar with different search engines and BOOLEAN search you can skip this section.)

Search engines belong to the web like the mother to the child. Without search engines and their indexing efforts, the web would be a pure chaos for its users. You can use the same methods and techniques like you use for a general search. Just enter one or more keywords or even better a phrase into the search box of your favorite search engine and get the results presented.

To improve your findings Boolean search is helpful. There are three Boolean operators (the following points are from Wikibooks, the open-content textbooks collection (Wiki How to search/Boolean Logic: [http://en.wikibooks.org/wiki/How\\_to\\_search/Boolean\\_Logic](http://en.wikibooks.org/wiki/How_to_search/Boolean_Logic); 2007-02-15):

- **AND:** Use the AND operator to retrieve a set in which each citation contains all the search terms. This operator places no condition on where the terms are found in relation to one another; the terms simply have to appear somewhere in the same citation.
- **OR:** Use the OR operator to retrieve documents that contain at least one of the specified search terms. Use OR when you want to pull together articles on similar subjects.
- **NOT:** Use the NOT operator to exclude the retrieval of terms from your search.

Nearly every search engine allows you to specify your request with this boolean operators. If you like to search for the fruit "apple" you should exclude all findings about computers and operating systems. For that, you should write a request like

***apple AND fruit NOT macintosh NOT mac NOT computer***

Every search engine uses an own request-language, but nearly all of the major search engines understand the following request.

***:apple +fruit -macintosh -mac -computer***

If you are looking for a phrase, you should set the phrase in quotation marks. If you are looking for a "big apple" plant and are not interested in New York - which is often called "big apple" you should write:

***:"big apple" -"New York"***



*Jacopo Pontormo: Cosimo de' Medici, 1518-1519. Public domain. Source: Wikipedia ([http://en.wikipedia.org/wiki/Image:Jacopo\\_Pontormo\\_055.jpg](http://en.wikipedia.org/wiki/Image:Jacopo_Pontormo_055.jpg))*

In an other project a group of students is working on a short presentation about the settings and circumstances of Cosimo de' Medici. For that, they are trying to find materials and resources, that they can use for a project webpage. They do not only want to collect to hyperlinks, but want to re-use the materials.

### **Assignment:**

Open your favourite search engine and search for websites about the "Medici Family". Then check the material you have retrieved on its copyright/license.

### **Web Resources:**

Search Engine Collossus Directory of international search engines (<http://www.searchenginecolossus.com/>)

Search Engine Watch A list of search engine tutorials (<http://searchenginewatch.com/showPage.html?page=2156611>)

Before using the content you have found, check if it provides under an open content license and how you can reuse the material. Often you will not find clear information regarding copyright. If you have found many resources without clear information regarding copyright it is likely that you cannot re-use or modify these resources. However, checking every single resource or document in terms of its license and reuse restrictions is very time-consuming.

Therefore it makes sense to use search tools that identify open content, e.g. Creative Commons licensed content anywhere on the Web. Besides the general search facility that search engines offer, some of them allow to search specifically for Open Content. The next part of this tutorial will introduce these search engines. It will show you how to use them to find content that you can reuse for your purposes.

## Open Content search

To save you checking every single resource you have found regarding copyrights and re-usability you can specify beforehand which type of resource you are looking for. Some of the available search engines allow to search for resources that are available under a Creative Commons License. For that, you normally have to select "usage rights" under "advanced search" or "preferences".

In the following sequences we will lead you through the search process

- using the Creative Commons Search (<http://www.olcos.org/english/Screencast-CCS-Search.html>)
- the Yahoo CC Search (<http://www.olcos.org/english/Yahoo-Search.html>)
- and the Google Search (<http://www.olcos.org/english/Google-Search.html>)

### Assignment:

You have got presented several ways of searching open content. Now just go and try: Search all three possibilities of searching open content for material that is free to use, share, modify or build upon, and compare the results you get for Medici Family.

- Which one is your favourite?
- Which search engine provides you the best results for your query?

## Web Resources:

Creative Commons Search (<http://search.creativecommons.org/>)

Yahoo Creative Commons search (<http://search.yahoo.com/cc/>)

### 3. Media specific search

If you are looking for a specific media type (images, animation, audio, video) you can also search for open content in media specific search facilities. This can be useful if you are planning to build new learning objects or units of learning and you don't want to reuse complete objects. The below listed search facilities offer you material licensed under Creative Commons.

Do you have a certain subject, course or presentation in mind? Use the following web resources to find a picture, an audio file or a video that could be useful for your new unit of learning.

- Flickr Creative Commons Search (<http://www.flickr.com/creativecommons/>): Flickr is a commercial company (owned by Yahoo) highly used to upload and organize images. These user-contributed images can be valuable resources for developing online learning units. Yet, only some of these images are licensed under an open content license (Creative Commons). Therefore it is important to know the Flickr Creative Commons Search. Using this search facility you can restrict your results to images that are licensed under a certain CC license. First decide what you want to do with the pictures and which license suits your needs. On this page (<http://www.flickr.com/creativecommons/>) you can then browse the latest contributions. If you click on "see more" you come to your license specific search engine. Another option is to use Flickr advanced search (<http://www.flickr.com/search/advanced/>) where you can specify at the bottom of the page if you are looking for Creative Commons licensed images.
- In the image repository at Wikimedia Commons ([http://commons.wikimedia.org/wiki/Main\\_Page](http://commons.wikimedia.org/wiki/Main_Page)) you can find images which are public domain, with a Creative Commons License and with the GNU Free Documentation license. You can search for images by topic categories, by type of media (e.g. maps), by fulltext search or by license.



- The Freesound Project (<http://freesound.iua.upf.edu/>) is a platform for Creative Commons licensed sounds. There are no songs available on this platform but just sounds and noises.
- The CCmixter (<http://ccmixter.org/>) site offers songs under a Creative Commons license. Several labels allow the reuse of their music, the searchword "open music" leads to many results. Also the podcasting world has a need for open music and there is a growing site with so called "podsafe" music. See the Podsafes Music Network (<http://music.podshow.com/>) for more information.

### Assignment:

Use one of the above listed media specific search facilities and search for:

- a picture of Cosimo de' Medici with a Creative Commons Attribution-ShareAlike License
- a sound of a church bell that is licensed under a Creative Commons Sampling Plus license.

### Web Resources:

- Flickr Creative Commons Search (<http://www.flickr.com/creativecommons/>)
- Wikimedia Commons ([http://commons.wikimedia.org/wiki/Main\\_Page](http://commons.wikimedia.org/wiki/Main_Page))
- Freesoundproject (<http://freesound.iua.upf.edu/>)
- CCmixter (<http://ccmixter.org/>)
- Podsafes Music Network (<http://music.podshow.com/>)

## 4. Searching in dedicated OER sites

Since there are also OER specific sites like preprint servers or learning object repositories search is also an important topic for these sites.

A repository is a central place where data is stored and maintained. A repository can be a place where multiple databases or files are located for distribution over a network, or a repository can be a location that is directly accessible to the user without having to travel across a network. Wikipedia "repository" (<http://en.wikipedia.org/wiki/Repository>; 2006-12-12)

Looking at educational repositories in the mean of being a resource for OER you will discover from whole courses to smaller learning objects a lot of valuable, reusable educational content for a variety of subjects. A repository supports mechanisms to import, export, identify, store and retrieve digital assets. Putting digital content into a repository enables staff and institutions to manage and preserve it, and therefore derive maximum value from it. Educational repositories mainly contain e-learning objects and teaching materials or research data.

All repositories offer their own search facilities. Additionally one can find search facilities providing federated search in different repositories (see Web Resources below). Try it with one repository and you will get an idea on how it works.

### Assignment:

Coming back to the subject: *Medici Family* now search for relevant open content in a repository. Select "connexions" from the list of selected educational repositories to open the home page of this repository and perform the following steps:

- Insert: *Medici Family* in the search box and start searching.
- Choose "The Medici Family" out of the listed results.
- Here you are, you get presented a brief history of the Medici Family which is part of different courses regarding this subject.
- In case you are looking for a whole course look on the left hand side of this screen under "Courses using this content". Start the one you would like to see.

### Web Resources:

- Connexions ([http://cnx.org/content/browse\\_content/](http://cnx.org/content/browse_content/))
- Exemplary Collection of Open eLearning Content Repositories ([http://www.wikieducator.org/Exemplary\\_Collection\\_of\\_Open\\_eLearning\\_Content\\_Repositories](http://www.wikieducator.org/Exemplary_Collection_of_Open_eLearning_Content_Repositories))
- MERLOT (<http://www.merlot.org/merlot/materials.htm>)
- MERLOT Screencast (<http://www.olcos.org/english/screencast-merlot-search.html>)

## 5. Keeping up-to-date with OER

### Internal Subscriptions

To keep up-to-date with content in a repository or on a preprint server several sites offer alerting services for new content. If you want to keep up-to-date with the latest resources fitting to your interest you should configure an alerting message for your favourite repositories and preprint servers. Some services allow only a very broad alerting ("Inform me when new content has been uploaded.") others allow also a very specific alerting ("Send me an email, when new content for topic xy has been added."). In this tutorial we are going to show you two examples for this way of keeping up-to-date with OER.

### DSpace

DSpace is a digital repository system that captures, stores, indexes, preserves, and distributes digital research material. Subscription feature alerts users of new work. HP Labs and MIT Libraries released the system worldwide in 2002, as a dynamic repository for the intellectual output in digital formats of multi-disciplinary research organizations. As an open source system, DSpace is now freely available to all institutions to run as-is, or to modify and extend as they require to meet local needs. The DSpace system provides a way to manage research materials and scholarly publications in digital formats in a professionally maintained repository to give them greater visibility and accessibility over time.

Research institutions worldwide use DSpace as an institutional repository, a learning object repository, for records management, and more. The DSpace open source platform is freely available so you can customize and extend it to suit your needs.

### Repository subscription

MERLOT Screencast (<http://www.olcos.org/english/screencast-merlot-registration.html>)

## RSS-Feeds



*RSS Icon*

Another way of keeping up-to-date is to subscribe to an RSS-Feed for search results or specific keywords. RSS means "Really Simple Syndication". RSS-Feeds can be read through a specific type of applications called RSS-Readers. Sometimes these applications are called Feedreaders or Aggregators. RSS-Readers make it possible to manage and read RSS-Feeds.

It has several advantages:

- You don't need to give personal data or the e-mail address.
- You avoid to receive in your email box mails that sometime are considered spam by your webmail.
- You choose individually which RSS sources you want to subscribe or not.
- You choose the moment you want to have a look at the news, because you need to open the agregator.
- It is very easy to delete a subscription, there is no need for sending emails asking for being deleted from a distribution list.

Try it and see how easy it is to use RSS feeds:

### **Assignment:**

- Download an RSS-Reader from this list (<http://www.newsonfeeds.com/faq/aggregators>; e.g. BlogLines) or use an online reader.
- If you find the above icon or the word RSS on a website, behind this is the link for your RSS-Reader. Copy this link and paste it into the reader.
- After you have successfully subscribed to the RSS-Feed of your favourite repository or preprint server, your RSS-Reader informs you whenever a new resource for your profile has been added.

### Web Resources:

w3schools (<http://www.w3schools.com/rss/>)  
RSS Tutorial A Primer for Publishers & Content Providers  
([http://www.techxtra.ac.uk/rss\\_primer/](http://www.techxtra.ac.uk/rss_primer/))

### Searchbots

Another option for keeping up-to-date with OER is the use of so called searchbots. After filling out a profile where you specify your interest through keywords or terms the bot informs you when he has found new resources for your profile.

### Assignment:

Visit the website of searchbots (<http://www.searchbots.net/>) and configure your personal agent for your profile!

### Web Resources:

- Björn Hermans (1997). Intelligent Software Agents on the Internet: An Inventory of Currently Offered Functionality in the Information Society and a Prediction of (Near) Future Developments. First Monday. Vol.2 No.3 - March 3rd. 1997.  
([http://www.firstmonday.org/issues/issue2\\_3/](http://www.firstmonday.org/issues/issue2_3/))
- UMBC AgentWeb (<http://agents.umbc.edu/>)
- GoogleAlert (<http://www.googlealert.com/>)

## 6. Useful Material

- Advanced Search with CSA - a tutorial (<http://www.csa.com/tutorials/advsearch.html>)
- Advanced Search with Epnet - a tutorial ([http://support.epnet.com/training/flash\\_videos/advancedSearchGuided.html](http://support.epnet.com/training/flash_videos/advancedSearchGuided.html))

## 7. Further Materials

Below you find further OLCOS tutorials. The materials are available in PDF format [pdf] or can be found online on the OLCOS wiki [wiki] .

Because the content of the OLCOS wiki ([http://wikieducator.org/Open\\_Educational\\_Content](http://wikieducator.org/Open_Educational_Content)) will be updated we recommend you to visit the wiki.

- Overview [wiki]
- Introduction: PLAN the use of OER [pdf] [wiki]
- Tutorial: SEARCH & FIND OER [wiki]
- Tutorial: PRODUCE & REMIX OER: author and modify [pdf] [wiki]
- Tutorial: SHARE OER: publish and re-use [pdf] [wiki]
- Tutorial: CHOOSE a license [pdf] [wiki]
- Tutorial: USE open source tools [pdf] [wiki]
  
- ORGANIZE: Collections
  - Exemplary Collection of Open eLearning Content Repositories [wiki]
  - Exemplary Collection of institutions with OER policy [wiki]
  - Exemplary Collection of open content licensing approaches [wiki]
  - Exemplary Collection of open formats, educational standard and tools for producing open educational content [wiki]