



Open eLearning Content Observatory Services

Open Educational Practices and Resources

Presentation at the OECD-CERI
Second Export Meeting on OER
Barcelona, 26-27 October 2006

Guntram Geser and Veronika Hornung-Prähauser,
Salzburg Research - Austria

Viola Naust, FernUniversitaet Hagen - Germany



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eLearning



Overview



- Basic project information
- Project philosophy and objective
- Status of ongoing project activities



I. Project basic information



Open eLearning Content Observatory Services

- OLCOS is a Transversal Action funded by the European Commission under the eLearning Programme
- Duration: January 2006 – December 2007
- Budget: 373.263 € (279.947 € funded EU)
- Project partners
 - European Centre for Media Competence, Germany
 - European Distance and E-Learning Network, Hungary
 - FernUniversitaet in Hagen, Germany
 - Mediamasteri Group, Finland
 - Open University of Catalonia, Spain
 - Salzburg Research Ltd., Austria = project co-ordinator
- Website: www.olcos.org

Project co-ordinator

salzburg | research

- Interdisciplinary research company
- 60 employees
- Owned by the State of Salzburg
- Technological R&D, eCulture, eLearning, socio-economic impact
- e.g. EduMedia Group: Focus on didactical innovation,
- For example:
 - e-portfolios for competence based learning,
 - development of semantic social software for group/community learning,
 - monitoring and evaluation of European trends in „smart content tools“ for Education and Culture

www.salzburgresearch.at



II. Project objectives



Open eLearning Content Observatory Services

Establish a virtual (online) *information and observation service* for promoting

- ***the concept,***
- ***the production and***
- ***the usage of open educational resources,***
- ***with special respect to open (e-)learning practises using open digital educational content***

III. Project philosophy & approach



Open eLearning Content Observatory Services

- **Focus on the development of self-organised learning and digital competencies/skills for the knowledge society – students and teachers**
- **OER is firstly about open educational practices for such development**
- **Open Content is a means to this end, i.e. supporting the need to change current educational practices**
- **Simple delivery of OER to teacher-centred “knowledge transfer” education does not make for a change**



III. Education yesterday - today



Open eLearning Content Observatory Services



Image sources:

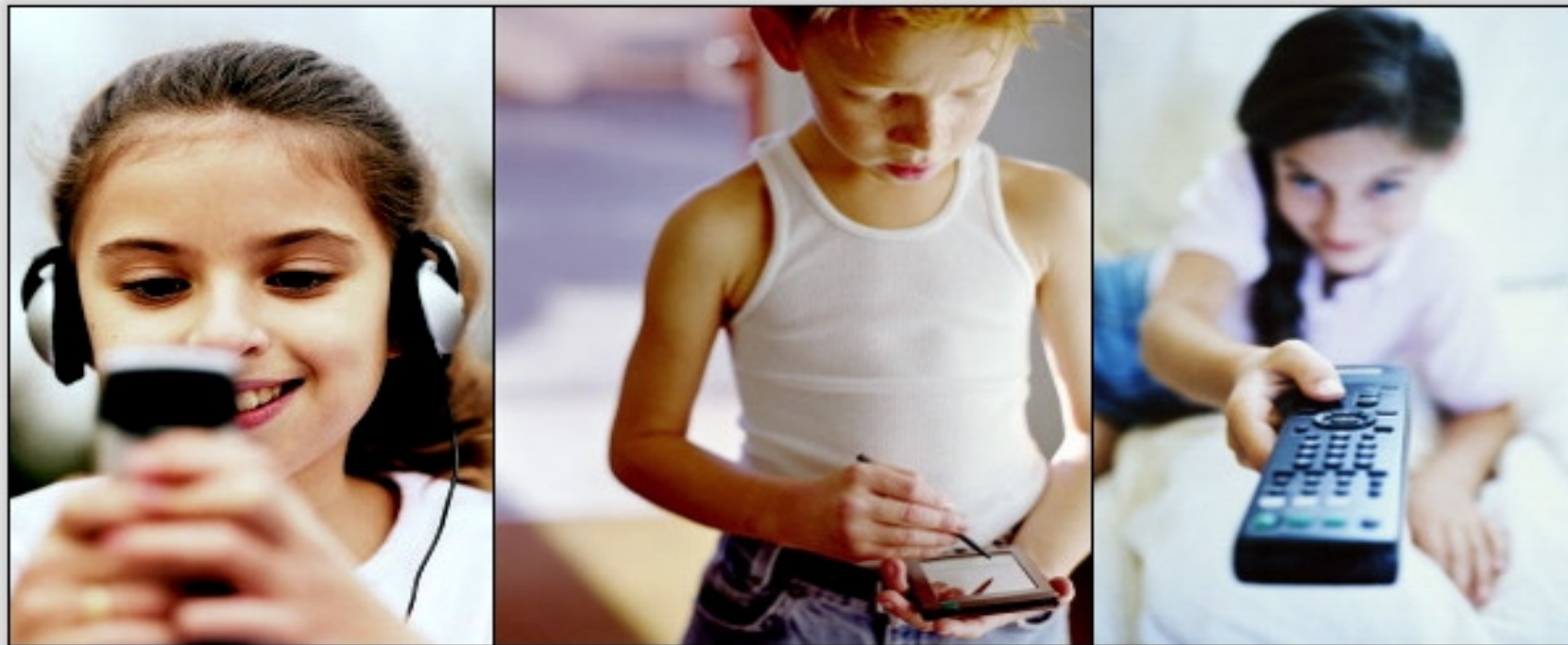
http://www.uni-leipzig.de/cumpraxi/img/hoersaal_410.jpg

http://www.difaem.de/index.htm?/100Jahre/bildergalerie_geschichte.htm

<http://www.bslonline.de/images/raum3e1.jpg>



III. Students tomorrow



Source: Wim Veen 2005

Multi-media competent and multi-tasking learners

**“Highly media competent learners -
learning informally”**



III. Learners become active web-publishers



Open eLearning Content Observatory Services

The screenshot shows a Moodle submission page for 'K1: Erste Aufgabe'. It displays a table of submissions with columns for 'Vorname / Nachname', 'Punkt', 'Kommentar', 'Zuletzt geändert (Teilnehmer/in)', 'Zuletzt geändert (Trainer/in)', and 'Status'. The table lists three submissions: one by 'Wolf Hilzensauer' with a grade of 'Vollig Un-Super', one by 'Hugo Studiosus' with a comment 'das war für'n hugo!' and a grade of 'Vollig Un-Super', and one by 'Hugo Studiosus1' with a grade of 'Keine Note'. Below the table are options to save feedback, set submissions per page to 10, and allow quick grading.

The screenshot shows the homepage of Dan Saffer, an interaction designer. The page features a navigation bar, a main content area with a red background, and a sidebar with a vertical stack of photos. The main content includes a welcome message, a list of services, a list of books, and a quote from Jesse James Garrett. The sidebar contains a vertical stack of photos of Dan Saffer.

HELLO, MY NAME IS **Dan Saffer** and this is **O Danny Boy**, my place on the internets since 1997.

I'm an interaction designer at Adaptive Path and the author of the book *Designing for Interaction: Creating Smart Applications and Clever Devices*. I live and work in San Francisco.

On this site you can

- find out more about me
- check out my portfolio and resumé
- read my blog (the last entry was **Side Project: No Ideas But In Things**)
- or find out how to contact me.

There's also a section of **extras** that didn't fit anywhere else.

I have a **Master's degree in Interaction Design**. You can read about my design school experience on

Designing for Interaction is informed, intelligent, and inspiring. Dan Saffer delivers practical advice in today's interaction design challenges, and smart insights on tomorrow's.
— Jesse James Garrett, author of *The Elements of User Experience*

Order from Amazon

III. Web-based e-portfolios



Explore Wolf Hilzensauer - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://elgg.net/_visaviz/visaviz_applet.php?owner=532

Explore Wolf Hilzensauer

Your Profile Your Blog Your Files **Your Network** Your Resources Your Calendar [Account settings] [Log off]

Elgg - Learning Landscape

Welcome Wolf Hilzensauer

Explore Wolf Hilzensauer

[Communities](#) | [Owned Communities](#) | [Friends](#) | [Friend of](#) | [Friendship requests](#) | [FOAF](#) | [Access controls](#) | [Invite a friend](#) | [Page help](#) | [Explore](#) |

- » Double-click to expand a node
- » Left click to move the display area
- » Right click to zoom

The visualization applet is experimental and may take some time to load.

```
graph TD;
    W[Hilzensauer] --- T[Dave Tosh];
    W --- N[Elgg News];
    W --- R[Serge Ravet];
    W --- A[Graham Attwell];
    W --- S[Shane Sutherland];
    W --- B[Helen Barrett];
    W --- Ang[Angela Baker];
    W --- Dia[Diana];
```

You

Wolf Hilzensauer
RSS | Tags | Resources

Wolf Hilzensauer,
ePortfolio & Social
Software

Recent Activity
View your activity

Owned communities
HAK-Neumarkt

Community memberships
eportfolios

Your Friends
Dave Tosh
Elgg News
Helen Barrett
Shane Sutherland
Angela Baker
Serge Ravet

Applet Wolf Hilzensauer started



III. Wiki-based collaboration



FrontPage - Mozilla Firefox

http://ikewiki.salzburgresearch.at/ikewiki/?title=FrontPage&action=view

LEO Deutsch-Englisch... HEROLD.at Innovationstypentest... Dr. Helen Barrett's Bo... Eintrag in b2evolution S-Admin P-Admin Lighthouse National_Reports-Ger... strat_valo_en.pdf (ap... eContent SBX Evaluier... CONGRATULATIONS Schriften

Google

FrontPage

salzburg research

IkeWiki

navigation

- Main Page
- Related Pages
- Help

edit

tools

- XML Exchange
- SPARQL Query
- Download RDF/XML
- Download RDF/N3
- Download TURTLE
- Download N-TRIPLE

search

Go Search

FrontPage

Types: cc:Work - wordnet:Document/rdfs:Resource

Contents [hide]

- Welcome to IkeWiki
- A Tool for Knowledge Engineers
- Try it out!
- Publications
- Availability
- Compatibility
- Support
- Contact

Welcome to IkeWiki

This is a sample article. You may edit its contents by clicking on 'edit content'. You may also refine links to and from this page by clicking on 'edit links'.

IkeWiki is a new kind of Wiki (a [Semantic Wiki](#)) developed by [SalzburgResearch](#) that allows users to annotate pages and links between pages with semantic annotations. Such annotations are useful because they give machines a certain amount of "understanding" of the content that goes beyond merely displaying the page. This information can then e.g. be used for context-specific presentation of pages, advanced querying, consistency verification or drawing conclusions.

Currently, IkeWiki can make use of some of the knowledge represented in RDFS and OWL schemas to display enhanced navigation tools. Furthermore, we implemented a sample "biology ontology" that automatically displays a taxonomy box for biological objects.

Although IkeWiki looks and behaves like Wikipedia/MediaWiki in many aspects, it is a complete rewrite, and the system design significantly differs from other Wikis. IkeWiki makes full use of Semantic Web technologies like RDF(S) and OWL using the Jena RDF store.

A Tool for Knowledge Engineers

The "Ike" in IkeWiki is the Hawaiian word for "knowledge". That is because the purpose of IkeWiki is to be an easy to use, collaborative tool that guides knowledge engineers in the process from unstructured informal texts over semi-formal knowledge in thesauri and taxonomies, to knowledge represented in a formal language or ontology. Our aim is that domain experts who are not proficient in the rather complicated tools and languages (like Protege and OWL) used on the Semantic Web are nonetheless able to formalise their domain knowledge and make it accessible by other Semantic Web applications.

A typical workflow could be to start with a set of Wiki pages from Wikipedia and modify them according to one's needs and requirements. Then, a knowledge engineer could gradually associate types with the pages and the links between pages, thus increasingly formalising the knowledge represented in the Wiki. Finally, he could download the Wiki contents as RDF or OWL ontology for further use in other applications.

Try it out!

To show the capabilities of IkeWiki, we have set up a sandbox server containing a few sample pages (mostly from Wikipedia). The sandbox server is available at <http://trollwiese.woanders.de>

Publications

The following publications are relevant for IkeWiki:

- Sebastian Schaffert, Diana Bischof, Tobias Buerger, Andreas Gruber, Wolf Hilzensauer, and Sandra Schaffert: Learning with Semantic Wikis (2006). Salzburg Research Technical Report ([download](#))
- Sebastian Schaffert: IkeWiki - A Semantic Wiki for Collaborative Knowledge Management (2006). Salzburg Research Technical Report ([download](#))
- Sebastian Schaffert, Andreas Gruber, and Rupert Westenthaler: A Semantic Wiki for Collaborative Knowledge Formation (2005). In: Semantics 2005, Vienna, Austria ([download](#))

Availability

IkeWiki is available under GNU Lesser General Public License. Please visit [News](#) for an overview and the [SourceForge Project Site](#) for downloads (currently only snapshots). If you require a different license, please contact the authors. Be sure to read the installation instructions on [help:Installation](#), as the development snapshots don't contain much documentation.

Requirements:

- Apache Tomcat 5.5.12 (or greater)
- JDK 1.5.0 (or greater)
- DoctrineSQL 7.4 (or greater, 8.1 recommended)

references

outgoing

- untyped (7)
- cc:license(1)
- rdf:type(3)
- ikewiki:hasAuthor(1)
- DevelopedAt(1)
- dcterms:license(1)
- dc:rights(1)

incoming



III. Semantics inside



Context: FrontPage - Mozilla Firefox

http://ikewiki.salzburgresearch.at/IkeWiki/?title=FrontPage&action=context

LEO Deutsch-Englisch... HEROLD.at Innovationstypentest ... Dr. Helen Barrett's Bo... Eintrag in b2evolution S-Admin P-Admin Lighthouse National_Reports-Ger... strat_valo_en.pdf (ap...

Google Search

IK1: Erste Aufgabe Context: FrontPage

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article context

Context: FrontPage

create account / log in

navigation

- Main Page
- Related Pages
- Help

edit

tools

- XML Exchange
- SPARQL Query
- Download RDF/XML
- Download RDF/N3
- Download TURTLE
- Download N-TRIPLE

search

Go Search

references

outgoing

untyped (7)

Comments

user:SebastianSchaffert

News

SebastianSchaffert.png

Sebastian Schaffert, born 1976, studied Computer Science at the University of Munich, Germany. He graduated in 2001 as "Diplom-Informatiker" and in 2004 as "Doctor rerum naturalium" (Dr.rer.nat.) with a thesis entitled "Xcerpt: A Rule-Based Query and Transformation Language for the Web". From 1998 to 2000, he was working as system administrator at the University of Munich, and from 2001 to 2005, he was employed as a research and teaching assistant, also at the University of Munich. Since August 2005, he is working as a senior researcher at the unit for knowledge based information systems at Salzburg Research.

Sebastian's research interests are in Web and Semantic Web research, social software, context adaptation, XML and semistructured data, as well as functional and logic programming. He has contributed to many scientific conferences as author and program committee member and has several publications on the rule-based XML query language Xcerpt and related topics. Besides this, Sebastian is interested in Linux and Open Source software, likes sailing/windsurfing, biking, and mountaineering.

- E-Mail: sebastian DOT schaffert AT salzburgresearch DOT at
- Homepage [↗](#)

http://ikewiki.salzburgresearch.at/IkeWiki/index.jsp?title=user:SebastianSchaffert&action=view



III. In realtime...



The Wales-Wide Web :: Graham Attwell on Learning, Knowledge and Technology - Mozilla Firefox

File Edit View Go Bookmarks Tools Help deljcio.us

http://www.knownet.com/writing/weblogs/Graham_Attwell

Google Wikipedia ÖBB LEO Deutsch-Englisc... Where are the traini... PROZEUS - Prozesse ... Electronic-Business.a... Familienplattform Prä... Salzburg Research F... Salzburg Research - ...

The Wales-Wide Web :: Graham Attw... ICTlogy

the wales-wide web

Graham Attwell on learning, knowledge & technology

▼ What is this?

Recent weblog entries

* 1-10 * by date, latest first >>

Show details | Hide details

▼ October 2006

▼ Barcelona - Open Content Rules

26-October-2006 << >>

[Open Content , web resources , social software]

- OpenLearn
- ICTlogy
- Bazaar

Short report on different meeting concerned with Open Content - including the launch of the Bazaar seminar and the UK Open University OpenLearn initiative.



Great Bazaar to write a Resource of course read blog

Now live the Open Content the dot cc talked about there were external h

Patrick Mc launched their Open hear a lot saying the direct

The material university is a whole

There is a continuing debate (which also came up at the Bazaar meeting) running over quality and whether universities should have a role in accrediting materials.

Patrick feels we are looking at futures - University 2.0 - and said there are many



III. Open educational practices



Open eLearning Content Observatory Services

- Active, constructive and collaborative engagement of students with relevant, “real world” questions
- Teachers as facilitators/“coaches” of learning processes and experiences
- Part of such processes and experiences is to identify, share, reuse and enrich OER
- Teachers and students contribute own ideas, study results, lessons learned

III. Open educational practices



Open eLearning Content Observatory Services

- OER as an evolving Web of openly and easily accessible resources (content, tools, services..., also other than typical “courseware”)
- Important role of a new generation of tools and services (“social software”) such as wikis, weblogs, RSS-feeds, bookmarks/content sharing, social networking,...
- Learning environment often self-managed by individual and groups of learners
- E-portfolios to document, reflect, and present learning progress and results

IV. OLCOS Activities



- **1. Road-mapping to provide orientation & recommendations**
- **2. Web-based services: OER awareness video, OER tutorials and examples of best practice**
- **3. Co-operation with other projects and communities of practice in OER**
- **4. Dissemination of information and “OER evangelism”**

IV.1: Road-mapping activity



Open eLearning Content Observatory Services

(1) Aims

- Explore how OER can make a real difference in teaching and learning
- Identify drivers & enablers and stumbling blocks
- Provide a set of recommendations for decision makers on required actions
- Decision makers includes teachers and learners!

(2) Focus

- Broader than Higher Education
- Open practices not “canned products”
- Time-horizon until 2012

(3) The Roadmap (about 150 pages) will become available in November 2006

(4) Below some findings (but see the full Roadmap for supporting observations, data and examples) ...



(1) Drivers & enablers

- Growing high-level recognition of the importance of OER, e.g. in lifelong learning agendas
- Healthy competition in providing OER (“latecomers” will need to convince through highly useful OER; active user communities may be of critical importance)
- Breakthrough of the open access principle in academic publishing
- Ever more funding bodies require that project results are made openly accessible

(2) Stumbling blocks

- Business models in OER are tricky; the right mix of income streams must be found
- Growing competition on scarce funding resources (also within institutions)
- Difficulty to find a balanced approach for open and commercial educational offerings (entrenched interests of educational publishers)
- Possible implementation of rigid DRMS by many organisations (incl. Royalties Collecting Societies, Cultural Heritage institutions,...)





(1) Drivers & enablers

- Strong policy emphasis on educational innovation and organisational change
- Tremendous use of “social software” outside the educational sector, a “spill over” can have real impact (already some experimentation in the sector)
- Increasing recognition that OER repositories need active communities to thrive (“critical mass” of content is not the key for success)
- Creative Commons licensing is firmly established and increasingly used

(2) Stumbling blocks

- Lack of incentives for teachers to excel in OE practices and resources – needs institutional reward as well as training and support
- OE practices require new ways to assess individual achievement



(1) Drivers & enablers

- Free and OS software more widely used in Higher Education and Further Education institutions (use in schools needs in-house capacity building)
- Widespread tried and tested know-how in best practice distributed repositories (e.g. Open Archive Initiative metadata harvesting approach)
- Ontologies based Semantic Web applications will offer new ways to understand concepts and access resources
- New technical solutions for handling group-based Learning Designs are in the pipeline (LAMS is already trialed)
- Emerging Personal Learning Environments (“e-learning 2.0”, e-portfolios)

(2) Stumbling blocks

- Ontologies and rich metadata will remain cost-intensive (e.g. LOM, educational categories are often not used)
- Need for more cooperation between tool developers and educators



IV.1: Status and Next Steps



Open eLearning Content Observatory Services

- Roadmap in Draft version, ongoing expert discussion and feedback
- Next expert meeting at UOC UNESCO Chair in eLearning, Third International Seminar on OER: Institutional Challenges, 22-24 November 2006
<http://www.uoc.edu/catedra/unesco/seminario/english/presentation.html>
- Openly accessible at www.olcos.org (end of november)
- Licensed to share –  **SOME RIGHTS RESERVED**
- Dissemination at eLearning events in Europe (Online Educa, EDEN Workshos, European Schoolnet, and others)

IV.2. Web-based information services



Open eLearning Content Observatory Services

- **Awareness Video about benefits of open learning practices**
- **Online Guidance and Tutorials on HOW TO plan, use and share open learning practices with open digital educational content**
 - **Search/Find**
 - **Produce and modify (re-use)**
 - **Share open digital educational content (ODEC)**
 - **Publish and license**
- **Best Practice Collections (E/G/S) of:**
 - **eLearning content repositories**
 - **Institutions / initiatives with OER policy**
 - **Open content licensing approaches**
 - **Tools and standards for producing ODEC**

IV.2: Tutorial: How to find Open Digital Educational Content (ODEC)



Open eLearning Content Observatory Services

The screenshot shows a Mozilla Firefox browser window with the following elements:

- Browser Title Bar:** Open Educational Content/olcos/Tutorial1 Use Open Content - WikiEducator - Mozilla Firefox
- Address Bar:** http://www.wikieducator.org/Open_Educational_Content/olcos/Tutorial1_Use_Open_Content
- Navigation:** File, Bearbeiten, Ansicht, Gehe, Lesezeichen, Extras, Hilfe
- Search:** Google search bar with 'Suche' button.
- Page Header:** article, discussion, edit, history, move, watch
- Main Content:**
 - Open Educational Content/olcos/Tutorial1 Use Open Content**
 - Contents [hide]**
 - 1 About this tutorial
 - 2 Table of Contents
 - 2.1 1 Searching Open Digital Educational Resources
 - 2.2 2 Keeping up-to-date with ODEC
 - 2.3 3 Using ODEC
 - About this tutorial** [edit]
 - Definition**

Agreed Upon Definition of ODEC here
 - Duration**

It won't take long to work through this tutorial but it will save time and effort to find open educational content you can reuse for your purposes.
- Left Sidebar:**
 - WikiEducator free elearning content** (with globe icon)
 - navigation**
 - Main Page
 - Community portal
 - Current events
 - Recent changes
 - Random page
 - Help
 - Donations
 - search** (with input field and 'Go' button)
 - toolbox**
 - What links here
 - Related changes
 - Upload file
 - Special pages
 - Printable version
 - Permanent link
- Footer:** Fertig



IV.2: Tutorial: How to find Open Digital Educational Content (ODEC)



Open eLearning Content Observatory Services

1) Searching/finding ODEC

1.1 Searching ODEC with Search Engines

1.2. ODEC search with special Open Content Search Engines

1.3. Media-specific search

1.4. Searching in dedicated ODEC sites

2) Keeping up-to-date with ODEC

2.1. Internal Subscription

2.2. RSS-Feeds

2.3. Agents

Open Educational Content/olcos/Tutorial1 Use Open Content/Searching ODEC with special Open Content Search Engines - WikiEducator - Mozilla Firefox

http://www.wikieducator.org/Open_Educational_Content/olcos/Tutorial1_Use_Open_Content/Searching_ODEC_with_special_Open_Content_Search_Engines

Google cc search

Open Educational Content/olcos/Tuto... LabSpace: CONNECT - OpenLearn LabSpac...

Viola naust my talk preferences my watchlist my contributions log out

article discussion edit history move watch

Open Educational Content/olcos/Tutorial1 Use Open Content/Searching ODEC with special Open Content Search Engines

< Open Educational Content

Some of the available search engines allow you to search for resources that are available under a Creative-Commons license. In the following sequences we will lead you through the search process using the Google and Yahoo - CC Search.

Searching ODEC with Google [\[edit\]](#)

[Integrate animation of search process here]

Searching ODEC with Yahoo [\[edit\]](#)

[Integrate animation of search process here]

Searching with Creative Commons Search [\[edit\]](#)

[Integrate animation of search process here]

Assignment

After you have seen now several ways of searching for ODEC it is time for you to take action: Search all three possibilities of searching ODEC and compare the results.

Which one do you like most? Which search engine delivers the best results for your queries?

navigation

- Main Page
- Community portal
- Current events
- Recent changes
- Random page
- Help
- Donations

search

Go Search

toolbox

- What links here
- Related changes
- Upload file
- Special pages
- Printable version
- Permanent link

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[About WikiEducator](#) [Disclaimers](#)

Powered By MediaWiki

Fertig

V.3. Co-operation, community and user involvement



Open eLearning Content Observatory Services

- (1) www.wikieducator.org as development platform (free education material) (end of 2006)
- (2) Invite users to test and adapt tutorials (between February and June 2007)
- (3) Finalise tutorial production and offer information service from
 - OLCOS home-page (traditional) and
 - provide content in Wiki system as service, allows for integration in institutional content (open content)

IV.4. Co-operation and further development



Open eLearning Content Observatory Services

- **Co-operation with other projects and communities of practice in OER**
- **Focus on eLearning communities**
- **Looking for funds for establishing profound training scheme (EPICT pedagogical driving license)**

www.olcos.org

Project co-ordinator / contact:
Salzburg Research Forschungsgesellschaft m.b.H.
veronika.hornung@salzburgresearch.at
Tel: +43-662-2288-405
Jakob-Haringer-Str. 5/II
A-5020 Salzburg
<http://www.salzburgresearch.at>

