„Get dynamic!“
E-education tools and e-services to reach the users

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Virtual library

„Digital libraries

– electronic media in various forms:
  Electronic library

– library services shared in a distributed environment (consortia): Virtual library

– holdings and services integrated in uniform interface with enhanced value“

Situation at ETHZ

- ETHZ executive board decision (1999): One print subscription only
- Cooperative financing of e-journals by libraries
- 6000 e-journals
- 2000 chemistry/biology/physics/pharmacy e-journals
Reading habits of chemists

always
mostly
sometimes
a little
never

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User Survey in Chemistry Department

• Reason: Information sources increasingly available at workbench

• Use of electronic scientific information
  – Demography: PhD students, assistants, professors, scientific employees
  – 17 question clusters
  – 178 questionnaires returned (34%)
  – Around Christmas 2001
Use of electronic search services

- E-mail: 16.1%
- Search engines: 18.8%
- Browsing: 16.7%
- Web portals: 3.7%
- Publishers: 8.5%
- Inhouse DB (CrossFire, CA on CD): 7.7%
- CLICAPS catalog: 8.7%
- NEBIS catalog: 7.2%
- Multidisciplinary DB (WoS, PubMed): 11.6%
- Online DB (STN): 1.0%

Based on 1335 mentions

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Improving searches

- Searches done more often by library specialists: 1.48
- Incorporating electronic search education in the studies: 2.47
- More education services of the library: 1.91
- Reference linking: 2.72
- Being able to view complete document: 3.05
- Federated searching: 2.46
- More differentiate queries: 2.10
- Improved indexing of documents: 2.13
- Better overview of search services and their possibilities: 2.65

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Desired e-sources & e-services

- Web portal for central access
- Personalization of information sources
- Electronic support (knowledge bases)
- Online tutorials for searches
- Availability of experts
- Specific databases
- Specific journals
- Other

Not: 0.0
Partially: 2.0
Perfectly: 4.0

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Strategy

Improve quality of information use by

• Support, training, education
  – electronic media and tools
• E-services
  – subject specific
  – personalization
  – portal functions
E-education tools

- German project
  „Vernetztes Studium - Chemie“
  (Networks for Chemistry Education)
- BMBF/FIZ Chemie
- Basic Syllabus:
  „Würzburger Modell“, Eurobachelor
- 19 Groups: 16 DE; 2 UK, 1 CH
- 9 Subject areas:
  Chemical information/chemoinformatics
  (Prof. J. Gasteiger, Univ. Erlangen)
„Vernetztes Studium - Chemie“

- Modular (VLU)
- XML
- Meta information

- Chemical information
  - ~3000 objects: text, images, links, multimedia
  - Basic, source, problem modules
E-services:
Architecture of a virtual library

- Dynamic content
- Personalization
- Linking and interfacing
- Meta information
- Federated searching
Dynamic content

- Must be input once into databases: Formalization
- Managed independently
- Control of workflow: Publication - Expiration - Archive
- Selection, classification: Same data, different views
- Consistent usability
- Additional functionality for users: Personalization, rating
Dynamic content: Architecture

- Library information systems as data back-end
- e.g., CLICAPS
  - Standard library functions
  - Added functions
Dynamic content: Example e-journals

Online journals

About 1800 online journals covering the subjects of biology, chemistry, pharmacy and physics are available to you.

The online journals are licensed by the ETH Library.
The Chemistry Biology Information Center contributes about SFr. 300'000.- to the total annual subscription.

Alphabetic list of journal titles

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Search for an online journal

Journals on all media (print, microfilm, online) can also be searched in the CLICAPS catalog.

Journals by subject

Biology
- Biotechnology
- Botany, Plant Biology
- Biochemistry
- General Biology Topics
- Genetics
- Microbiology
- Molecular Biology
- Biophysics
- Zoology, Physiology

Chemistry
- Analytical Chemistry
- Biochemistry
- Chemical Engineering
- Chemical Technology
- General Chemistry
- Topics
- Geochemistry; Geology
- Inorganic Chemistry
- Macromolecular

Related fields
- Computer Science
- Economy; Society
- Electronics; Electrical Engineering
- Energy
- Environment; Health
- Food Science
- Mathematics
- Medicine

Online journals

Home > Online Journals > N


Legend

CLICAPS: Full record of journal according to CLICAPS catalog, including link to NEBIS for placing orders.
Free: No access restrictions
ETHZ.ch: Access only for ETH Zürich (by IP domain ethz.ch)
ETH limited: Only for ETH Zürich - limited access
Consortium: Access provided by Consortium of Swiss Academic Libraries
Password: See special access limitations
Register: Free access. You have to register first
No Access: No access presently

Journals (sorted by short title)

Personalization

- e.g., Current awareness of e-journals
- Outlook: Databases, search profiles, links, e-books, news
Linking and interfaces

Reference linking
• Important part of virtual library
• e.g., Vertical linking
  $2^o - 1^o$ lit.

• Chemistry : also data linking (XML, CML)

Citation
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<tr>
<th>Document Type</th>
<th>Journal</th>
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<tbody>
<tr>
<td>Authors</td>
<td>Corey, E. J.; Roberts, Bryan E</td>
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<td>1997</td>
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<td>Page</td>
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Abstract

Journal of the American Chemical Society

Total Synthesis of Dysidiolide
E. J. Corey and Bryan E. Roberts
pp 12425 - 12431 (Article) DOI: 10.1021/ja973023y

Abstract Full: HTML, PDF (262K) Supporting Info
Meta information: Classification

- Visualization: StarTree Java Applet (Inxight Software Inc.)
- Both printed and online media classified
Meta information (2)

- Creation of classes
- Prototype: General purpose thesaurus
  - Polyhierarchic
  - Link lists
  - Standard study texts
  - Databases
  - Properties
  - Profile generation

(presently ~500 e-books in CLICAPS)
Conclusions

Connect Content and User Needs: Portal

Needs (= Services)

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<th>Search</th>
<th>e-books</th>
<th>e-journals</th>
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Don‘t forget the people!

Librarians at InfoDesk:
- Gerda Doornveld
- Franziska Erne
- Brigitte Metzler
- Inge Vetsch

InfoCenter:
- Library users
- Scientific staff

- Engelbert Zass
- Blanka Cartier
- Arun Kumar
- Martin Brändle

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URLs

- Website: www.infochembio.ethz.ch
- WebOPAC: www.clicaps.ethz.ch
Results: Search techniques

- Most often author/title searches
- Chemistry specific search techniques rare
Problems encountered when doing searches

- Rephrasing the query: 71%
- Too much information: 65%
- Uncertain, if results contain all relevant information: 62%
- Hard digging-through to the right document: 52%
- Use is too complicated: 15%