

#### Libraries in partnership with research

# E(nhanced)-research and the future role and tasks of research libraries

Dr. Norbert Lossau Niedersächsische Staats- und Universitätsbibliothek Göttingen

Academica 2008

4 November 2008, Tartu University/Library





# <u>Topics</u>

- Setting the Scene: e-Science/e-Research/e-Humanities and the need for new research infrastructures
- Digitisation for the Arts and Humanities: technology, collections and workflows
- Open access and Digital Repository Networks: a new digital research infrastructure

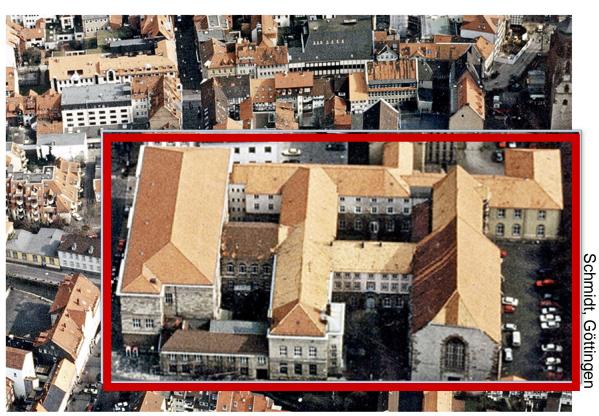
- Grid based research infrastructures and new tools
- The future role of research libraries
- Characteristics of future library services

## <u>Göttingen State and University Library of Lower Saxony</u>

- 1734 founded
- Largest research library in the 18th century in Europe ("Library of the Enlightment")
- Historical "National Library" for the 18th century
- Among the 5 major research libraries in Germany
- More than 4,000 visitors (only in the central Campus library)
- Major Special Collections Library (16, like Pure Mathematics, Anglo-American History, Culture, Politics, Estonian Literature, Language and Ethnology, Hungary, Finland, Forrestry, Astronomy, Astrophysics, Geophysics)
- One department: national digitisation centre (Göttinger DigitalisierungsZentrum, GDZ)
- A leading Open Access Institution in Germany
- Nationally and internationally leading in developing digital services and information infrastructures (like Repository networks, Grid-tools for Humanities)

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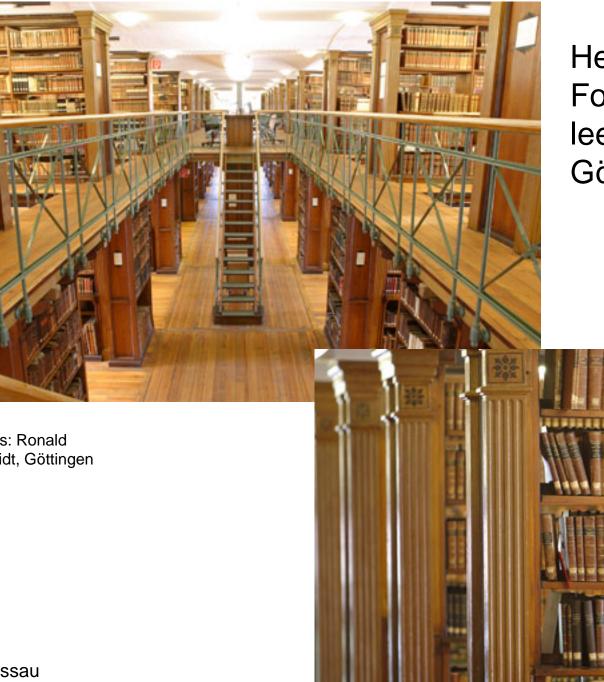
Lossau



Niedersächsische Staats- und Universitätsbibliothek, Historische Forschungsbibliothek Photos: Ronald

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Heyne-Forschungsleesesaal, SUB Göttingen

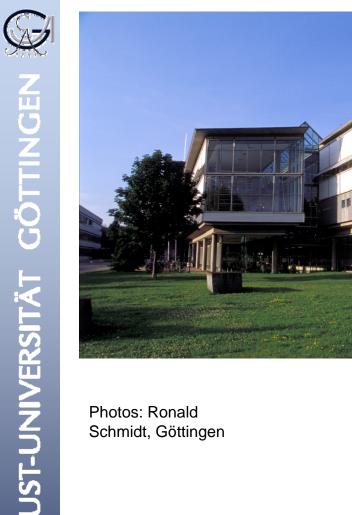
Photos: Ronald Schmidt, Göttingen

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**GEORG-AUGUST-UNIVERSITÄT** 

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Niedersächsische Universitätsbibliothek,

Zentrale Campus -

# **Emergence of a New Science Paradigm**

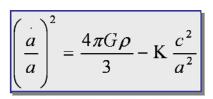
- Thousand years ago **Experimental Science** 
  - Description of natural phenomena
- Last few hundred years Theoretical Science
  - Newton's Laws, Maxwell's Equations...
- Last few decades Computational Science
  - Simulation of complex phenomena
- Today eScience or Data-centric Science
  - Unify theory, experiment, and simulation
  - Using data exploration and data mining
    - Data captured by instruments
    - Data generated by simulations
    - Data generated by sensor networks
  - Scientist analyzes databases/files
  - Commercial and academic applications

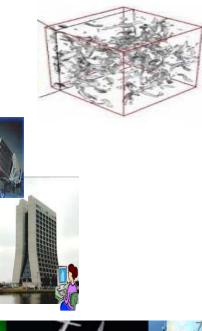
(With thanks to Jim Gray)



Acknowledgments go to Tony Hey, VP Microsoft, 2007







# <u>e-Science</u>

e-Science describes new ways of performing research, that are characterised by colloborative, networked generation of knowledge, widespread scientific communication and shared use of physically distributed resources

and enabled through ICT-technologies

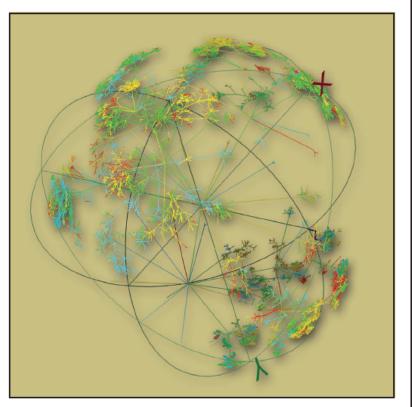
Knowledge is not any longer only the knowledge of individuals but global, networked knowledge

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e-Science can be applied to all disciplines (e-Research)



#### CYBERINFRASTRUCTURE VISION FOR 21ST CENTURY DISCOVERY





National Science Foundation Cyberinfrastructure Council March 2007



# International Virtual Observatory Alliance

www.ivoa.org

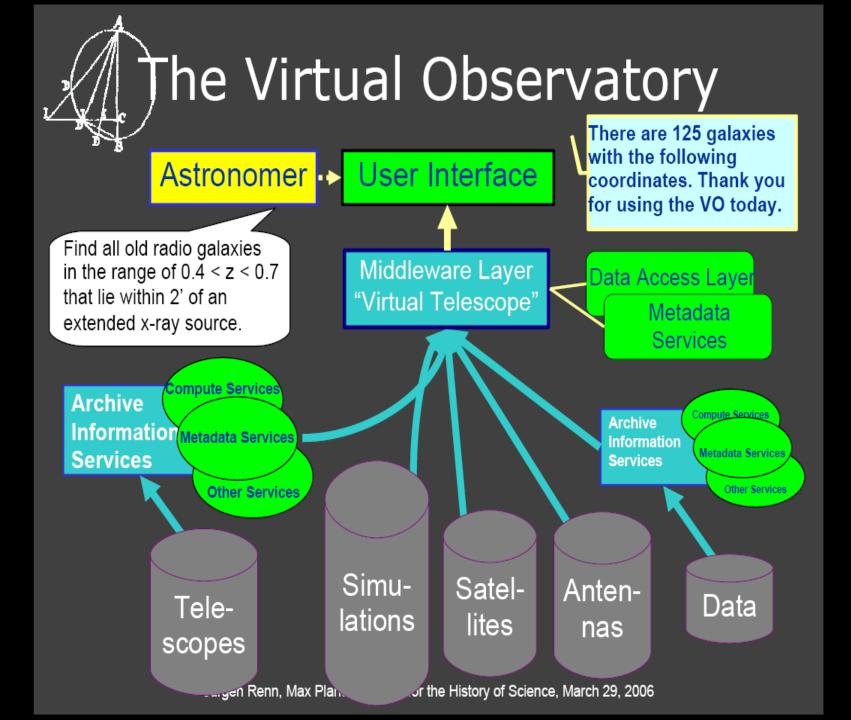
ww.g-vo.org



Hungarian Virtual Observatory

Golm, 30 March 2006

Springel, Szalay



# <u>The Digital Pantheon Project, Bern, CH</u>

http://www.karmancenter.unibe.ch/pantheon

- Cooperation of archeologists, mathematicians, art historians, computer scientists, science historians
- Goal: To carry out research about the Pantheon, collaboratively, using digital technogies and the World Wide Web
- One instrument (among others): Digital 3D Modell of the Pantheon, 540.000.000 points (9 GB data), created through laser scanning, comprises coordinates of all points and the colours of the surface

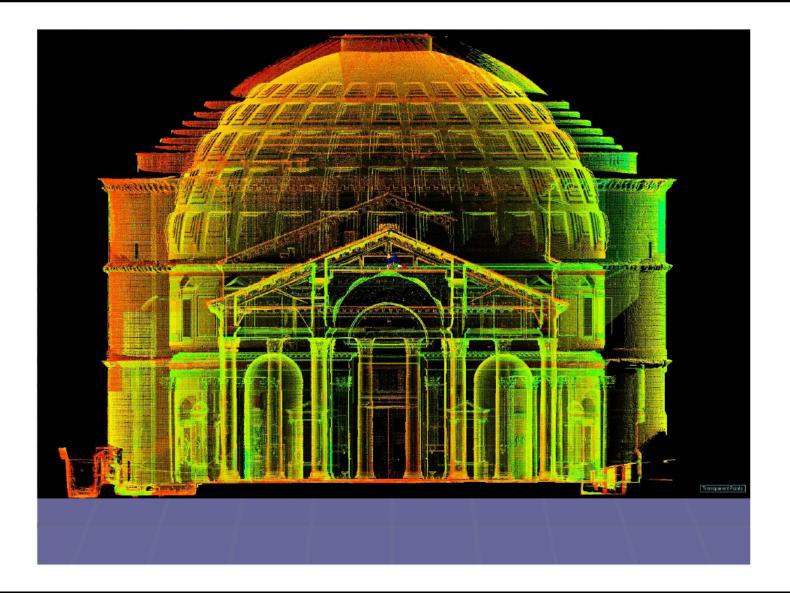










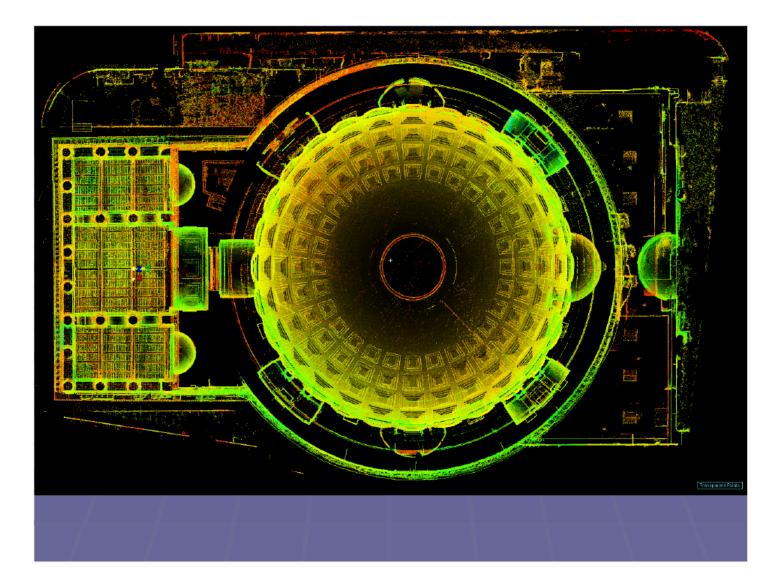




















# **Starting point for library activities**

# "What scientists/scholars really need ..."

- Comprehensive access to all relevant information sources, if possible from their desktops
- Access to specific editions of ressources (e.g. Historians, Philologists)
- Intuitive tools and instruments (software services) to work with documents and data (analysis, annotation, filtering, sequencing)
- Quality, timely dissemination (publishing) of research results
- Long-term access to research results
- TIME to research!

# ⇒Roles of (research) libraries

- 1. Guarantee open access to scientific information
- 2. Secure scholary and cultural heritage and make it worldwide accessible
- 3. Organise, structure and network knowledge on the web
- 4. Secure long-term access to knowledge, incl. digital ressources
- 5. Act as "trendscouts" and build up competence centres for research information infrastructures

### The Göttingen Digitisation Centre (GDZ)

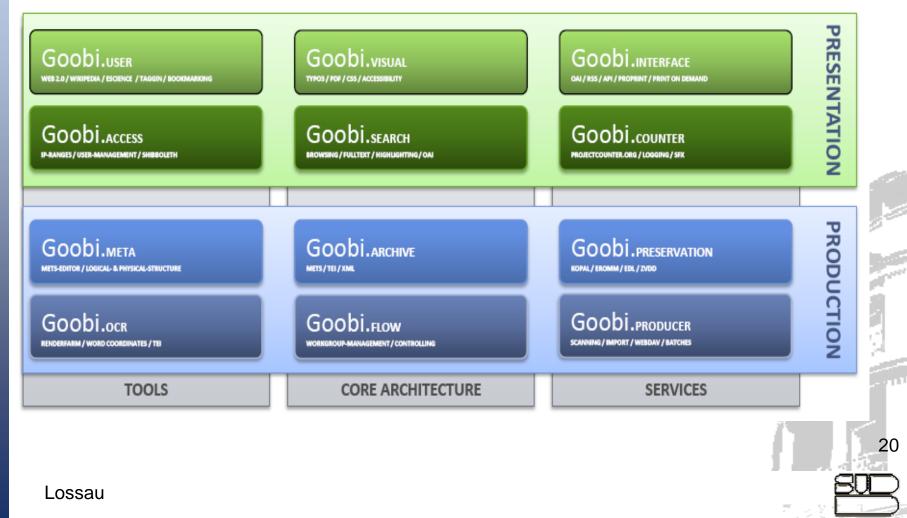


### **Efficient workflow: the basis of mass digitisation**



- Initial Development of SUB Göttingen, now partnership with the SLUB Dresden
- More than 25 libraries want to re-use GOOBI, incl. Staatsbibliothek Berlin
- Technical information
  - Web based
  - Written in Java
  - Unicode encoding
  - Open source
  - Reusable for several scientific-workflow scenarios
  - METS based internal metadata schema (configurable)

## **Modular architecture of GOOB**

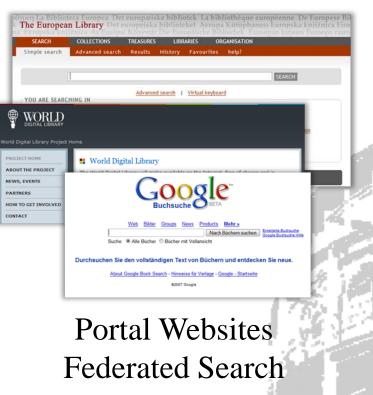


#### <u>Why METS?</u> <u>The new paradigm: connecting content</u>

#### Past



Project Websites Repositories Present



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### Work flow status of every volume

Current steps Search for volume > Current processes Process templates

- Administration -

User User groups Administration tasks

- User data -

Change password

		Process title (volume) 🔻								
□ algeilo_0001_1962										
	Number	Title	Status							
	1	Application for a licence								
	2	inventory of the printed version								
	3	ZDB entry								
	4	library entry for the local OPAC								
	5	standardisation of the journal title								
	6	process creation (on the volume level)								
	7	creation of the Tiff-Header								
	8	scanning of the images								
	9	quality control								
	10	image post-processing								
	11	completeness check of the Zentralblatt data on the article level								
	12	import of the Zentralblatt metadata								
	13	check and revision of the bibliographic data by the tool								
	14	import of the Russian metadata								

14 processing of bibliographic metadata 15 on the article level capture of the structure data (pagination recording, additional 16 capture of missing structure data, creation of the metadata structure) 17 revision import Zentralblatt final checking on the volume level and 18 metadata release 19 automatic generation of the SICI 1 20 data export 21 import into local DMS or repositories 22 acknowledgement of the PURL 

Image: Image:

Interpretation and Interpretation Interpretatio Interpretation Interpretation Interpretation



#### **Exporting METS**

#### Management Current processes Hits: 240 Document model with two structures Process ti ion I ansacast\_PPN519 apiacosm PPN51 Link to several files METS > Dehrgene\_PPN51 METS > <METS:div TYPE="page" ID="phys0002" DMDID="dmdphys0002"> METS >ML Derncata\_PPN521 <METS:fptr FILEID="bitonal0001"/> bileneu\_PPN5185 METS >ML <METS:fptr FILEID="hires0001"/> METS ML blanlexi\_PPN519 </METS:div> blumdeut\_PPN52 METS > ML Link to page area Donanach\_PPN51 METS >ML METS >ML Desecomm\_PPNS <METS:div TYPE="column" ID="phys0003" DMDID="dmdphys0002"> METS >ML bosmdis\_PPN517 <METS:fptr> METS > ML bothzuve\_PPN52: <METS:area FILEID="bitonal0000001" METS >ML Distance be PPN51 COORDS="40x40x150x250"/> </METS:fptr> E campwoer\_PPN5; METS > ML </METS:div> caruresu PPN517 METS >ML METS >ML cataunhoe\_PPN520010772\_1001\_Pilonaeiis D

#### Integrated image viewer (AJAX driven)

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Forward

33. Fuggerhäuser, Maximilianstrasse 36-38, Augsburg, 1512-15: east front as before 1944

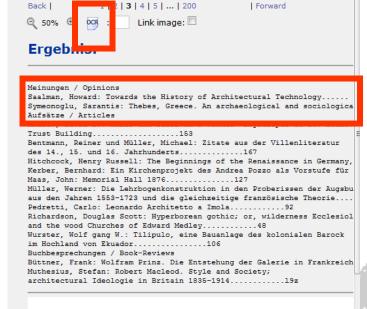
as noted, cannot establish how accomplished he Tyrol and in the character of its frame of panelled may have been at Ronaissance design in the relevant years 1509 and 1510. The recumbent figure of St. Alexis, carved in wood at Schloss Erbach near Ulm in Württemberg and signed and dated capitals: DI. ALEXIO, ROM. SACR, ROECH-LINGERI. PATRICII. AUGUSTANI. RESTI-TVERVNT. The lettering somewhat resembles though it does not equal in Classical authority in Kraków Cathedral.

Loscher's tomb of Ambrosius Worsing, who died in 1513, in the parish church at Bolzano suggests, rt Reclams Kunstführer [1], Bayern, 6th ed. [Stuttgart, both by its location in what is today the Italian

pilasters and correctly proportioned entablature, that by the time it was executed Loscher had already been in Italy. This might have been while the Fuegerkapelle was in construction, though not probably "M(Meister) B(astian?) Loscher, Bildthauer disses before it was designed and begun. The considerably Bildwerk, A. (513" actually recalls more the Late later Rosary Altar of 1521-221, in St. Rochus in Gothic aspects of Burghmair's style. Yet there is Nürnberg, on which Loscher is believed to have no Gothic architectural detail on this monument collaborated again with Adolf Daudier, has similar and the handsome inscription, indicating the Reh- elements. By the standard of the Fuggerkapelle, lingers of Augsburg as the donors, is in Roman however, the design is less plausibly Italianate. Its fussy elaboration recalls a little Ferrucci's altar at Esztergom of 1519 (fig. 27). Like the Worsing tombslab, that displays the special sort of assimilation and modulation of arbitrarily borrowed elements Hermann II Vischer's inscription of 1510 on the of Italian architectural detail - notably, on the bronze tomb-relief of Fryderyk Cardinal Jagiello Nürnberg altar the fluted lunettes over the outer niches - which is even more evident in Dürer's Tri-

1966] 639.

s



**OCR** integration

#### Inhalt/Contents

#### Meinungen / Opinions

Saalman, Howard: Towards the History of Architectural Technology Symeonoglu, Sarantis: Thebes, Greece. An archaeological and sociological Problem . 81

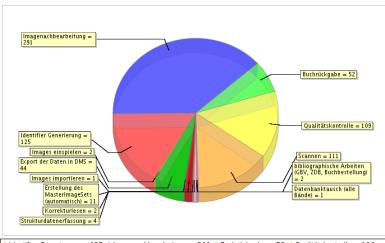
#### Aufsätze / Articles

Andrew, David S.: Adler and Sullivan's "other" skyscraper in St. Louis: The unacclaimed Union

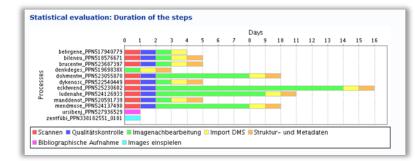
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### **Statistics and controlling**



Identifier Generierung = 125 Imagenachbearbeitung = 291 Buchrückgabe = 52 Qualitätskontrolle = 109 🖻 Scannen = 111 💿 bibliographische Arbeiten (GBV, ZDB, Buchbestellung) = 2 💿 Datenbanktausch (alle Bände) = 1 Strukturdatenerfassung = 4 
 Korrekturlesen = 2 
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#### Statistical evaluation: Status of volumes

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### **Presentation layer: TYPO 3 / Lucene**

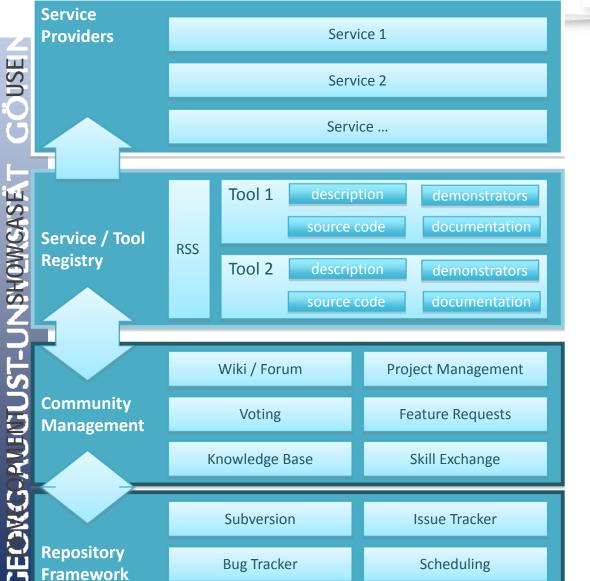
#### Customizable design and features





### <u>Architecture</u>





TYP03











## <u>Open access and Digital Repository Networks: a new digital</u> <u>research infrastructure</u>

Free and unrestricted access to sciences and human knowledge representation worldwide, incl. cultural heritage

### Berlin Declaration, Oct/2003

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⇒Requires an interoperable, trusted, long-term repository infrastructure

# **Selected Activities and Projects**

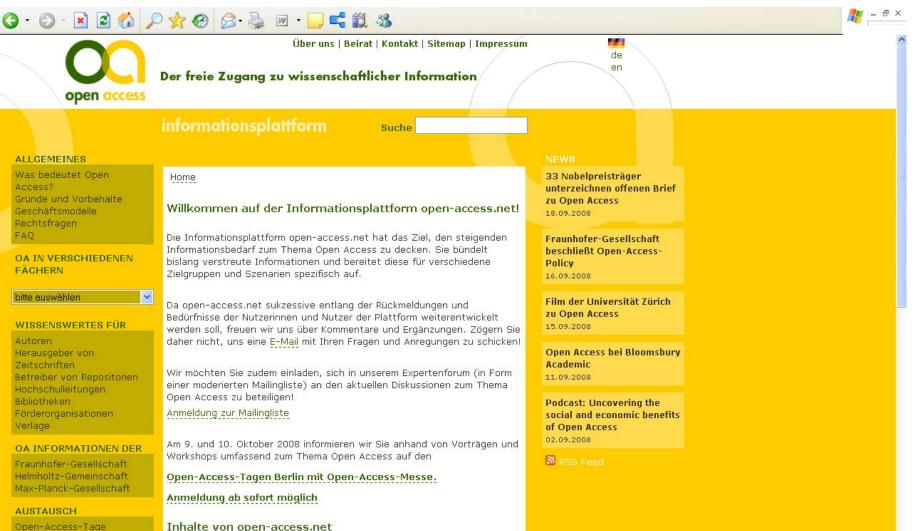
### **Open Access**

- German Information Plattform <u>www.open-access.net</u> (Production)
- OA at Universities: Repositories, University Press (D) (Production)
- OAPEN (EU) (Project)
- PEER (EU) (Project)

### **Open Access - Infrastructures**

- DRIVER (EU) (Production und Project)
- OA-Netzwerk, OA-Statistik (DINI, D) (Projects)
- DARIAH (EU) (Projekt)





open acces

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#### Open Access

Aa+ Aa-

**Chow can I publish Open Access at Göttingen University?** 

Suche

#### **\$What are the costs involved?**

**C**What can I do as author to publish Open Access?

Solution ⇒ Solutio

### Göttingen University Press – an **OA** Publisher

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Ihr Warenkorb ist leer.

Neuerscheinungen:

Greenberg, Jane and Wolfgang Klas (Ed.) Metadata for Semantic and Social Applications

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Papke, Renate

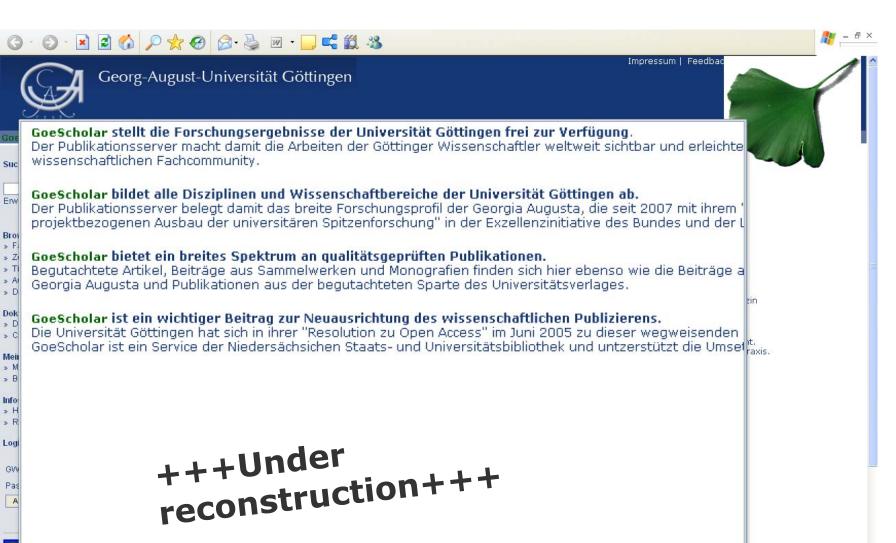
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information management, social collaboration. DC-2008 will focus on metadata challenges, solutions, and innovation in initiatives and activities underlying semantic and social applications. Metadata is part of the

fabric of social computing, which includes the use of wikis, blogs, and tagging for collaboration and participation. Metadata also underlies the development of semantic applications, and the Semantic Web - the representation and integration of multimedia knowledge structures on the basis of semantic models. These two trends flow together in applications such as Wikipedia, where authors collectively create structured information that can be extracted and used to enhance access to and use of information sources. Recent discussion has focused on how existing bibliographic standards can be expressed as Semantic Web vocabularies to facilitate the ingration of library and cultural heritage data with other types of data. Harnessing the efforts of content providers and end-users to link, tag, edit, and describe their information in interoperable ways ("participatory metadata") is a key step towards providing knowledge environments that are scalable, self-correcting, and evolvable. DC-2008 will explore conceptual and practical issues in the development and deployment of semantic and social applications to meet the needs of specific communities of practice.

computing, and scientific

# GoeScholar – The institutional repository of Göttingen University



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## GoeScholar – The institutional repository of Göttingen University

Suche

» Titel

» Autor

SUB Göttingen





Carbonate mounds of Morocco ; IGCP 380 field workshop October 24 - November 1,1999

Histological investigations of organisms with hard skeletons ; a case study on siliceous sponges

Palaeobiological reconstructions of selected Spinctozoan Sponges from the Cassian Beds (Lower Carnian) of the Dolomites (Northern Italy)

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Mein GoeScholar » Meine Publikationsliste » Benutzerprofil Infos & Hilfe » Über GoeScholar » Hilfe & FAQ » Rechteübertragung	<ul> <li>Kuo, J. L.; Kuhs, Werner F. (2006): A first Principles Study on the Structure of Ice-VI: Static, Distortion, Molecular Geometry and Proton Ordering J. Phys. Chem. B, 110.</li> <li>* Titel in Google scholar</li> <li>Quast, Andres; Hoefs, Jochen; Paul, Josef (2006): Pedogenic carbonates as a proxy for palaeo-CO2 in the Palaeozoic atmosphere Palaeogeogr., Palaeoclimatol., Palaeoecol. 1-2.</li> <li>* Titel in Google scholar</li> <li>Reitner, Joachim (2005): Calcifying extracellular mucus substances (EMS) of Madrepo oculata ; a first geobiological approach in: Cold-water corals and ecosystems, 2005, 731-744.</li> </ul>	basement and overlying flysch to greater depth. In the Oligocene, both collapse of the nappe stack and rifting prior to

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- Über GoeScholar - Hilfe & FAQ - Rechteübertragung	<ul> <li>Tschinkel, Yuri; Batyrev, Victor V. (1996): Height zeta functions of toric varieties in: Journal of mathematical sciences, Vol. 82.1996, 1, p. 3220-3239.</li> <li>Titel in Goodle scholar</li> </ul>							
mpressum	<ul> <li>Tschinkel, Yuri; Strauch, Matthias (1997): Height zeta functions of twisted products in: Mathematical research letters, Vol. 4.1997, p. 273-282.</li> </ul>							
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	<ul> <li>Bogomolov, F. A.; Tschinkel, Yun (1998): Density of rational points on Enriques surfaces in: Mathematical research letters, Vol. 5.1998, p. 623-628.</li> </ul>							

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## DRIVER's Vision

All research institutions in Europe and worldwide make all their research publications openly accessible through institutional repositories





# General Information: DRIVER II

- Duration: 24 months
- Budget: 2.7 m EUR
- Timeplan: 12/'07 -11/'09
- Main Deliverables:
  - Digital Repository Infrastructure
  - European Digital Repository Confederation
- Funded by the European Commission, "Research Infrastructure" Unit, FP 7
- Consortium Partners
  - Univ.of Athens (GR)
  - Univ. of Bielefeld (GE)
  - CNR-ISTI (IT)
  - STICHTING SURF (NL)
  - Univ. of Nottingham (UK)





### cont...

- Univ. of Bath (UK)
- Univ. of Warszawski (PO)
- Univ. of Gent (BE)
- Univ. of Goettingen (GE)
- Danish Technical University (DK)
- Universidade do Minho (PT)
- Narodna in univerzitetna knijznica (SLO)



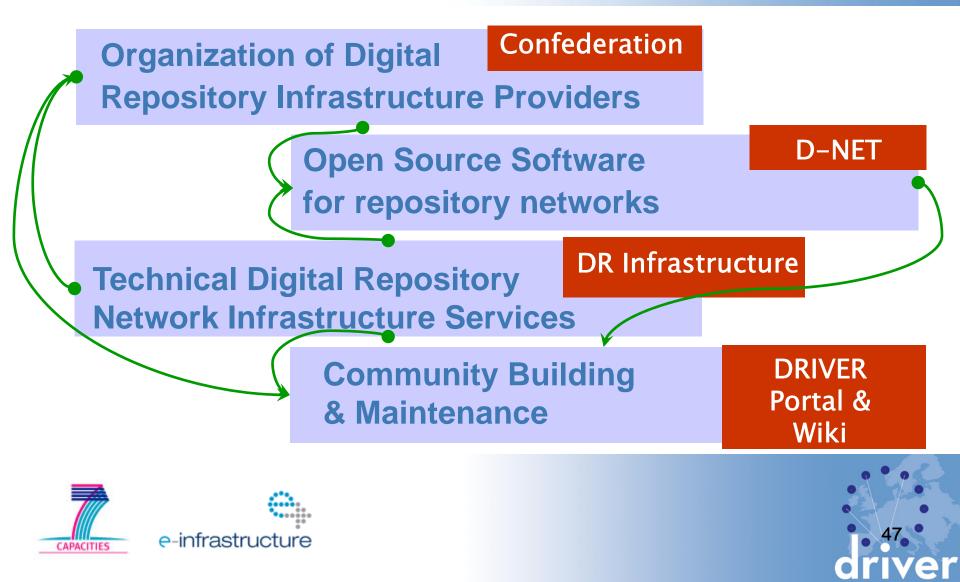
# **DRIVER History**

- DRIVER (I), started 1 June 2006, ended 30 November 2007
- DRIVER II, started 1 December 2007, ends 30 November 2009
- Recent event: DRIVER Summit 16/17 January 2008, Göttingen





# DRIVER II activity areas and outcomes



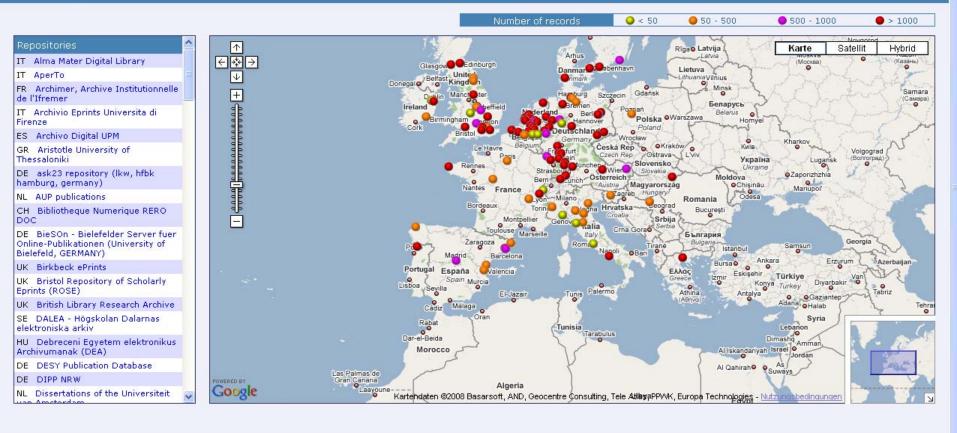
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DIGITAL REPOSITORIES INFRASTRUCTURE VISION FOR EUROPEAN RESEARCH

Home Repositories Network Collections

Show Map

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DIGITAL REPOSITORIES INFRASTRUCTURE VISION FOR EUROPEAN RESEARCH

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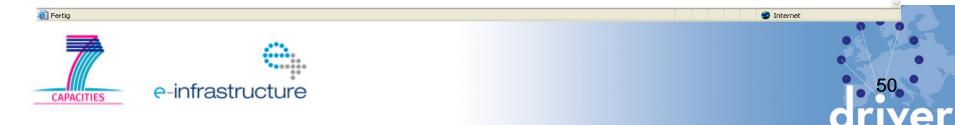


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## The DRIVER Portal www.driver-community.eu





SEARCH THE REPOSITORIES | LEARN ABOUT DRIVER | FIND SUPPORT | FOR REPOSITORY MANAGERS

Digital Repository Infrastructure Vision for European Research

Browse for documents

by Document Language

by Author

by Subject

by Repository

by Document type

### Home | Browse | Communities | Collections | Driver Repositories

### HOME

### Search all repositories

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	Reset	Search
DRIVER compliant repositories		
Limit your search by		

### Document Type

Date of publication

### Document Language

Repository

Community

### Collection

hide details

### No search limits.

### DRIVER Communities

Computer Science in the UK **DINI Repositories and Database** Research Molecular Biologists

## See all DRIVER Communitie

### DRIVER Collections

### Anthropology

Biology Computer networks Computer Science DAREnet Repositories **DART Europe Repositories** Database Systems and Theory **DINI Certificated Repositories European Countries** 

See all DRIVER Collections ..

Learn about Collections ...

### Create your own profile

Create your account to receive personalized services. Registered users can filter their searches or receive alerts based on their

25 languages.

For repository managers Is your repository registered with DRIVER? If not, contact us via our helpdesk and we will guide you through the registration process.

News & Announcements Features more than 600,000

Open Access documents from over 110 European repositories in

### For service providers

Develop the repository landscape!

Are you a technical person? Then you may want to have a look at the current DRIVER infrastructure deployment, or take a peek at two test installations of the driver infrastructure for specialized communities: DART and Recolecta.

Visit our official project site to download the latest DRIVER. infrastructure software release D-NET v.1.0

If you have any questions or need further information please contact our helpdesk and we will be happy to assist you!

Internet

http://search3.driver.research-infrastructures.eu/webInterface/browseAuthors.do?action=load







Register here.

MyDriver

### W

SEARCH THE REPOSITORIES | LEARN ABOUT DRIVER | FIND SUPPORT | FOR REPOSITORY MANAGERS

Digital Repository Infrastructure Vision for European Research



Here you can access information and support relating to Open Access and digital repositories. Digital repositories can help make research information more widely available, more widely used, and improve the process of research itself. Information of interest to specific user groups is available as well as information about the DRIVER project.

DRIVER II, a project funded by the 7th Framework Programme of the European Commission, is the continuation of the DRIVER project. DRIVER II will extend the geographical coverage step-by-step and will move from a test-bed to a production-quality infrastructure. As part of DRIVER II this site will be revised to reflect new developments and the wider remit of the DRIVER II project. D-NET, a development of DRIVER II is nearing release and details will shortly be available from theLearn About DRIVER website.

This site holds details on the state of development of repositories in different European countries and how you can join this growing European network.

You may share information and news from your own country via the DRIVER Wiki and can benefit from the experience of others, and share your experiences, through the Mentor Service.

You can also want to suggest events or announce news on this site that other visitors may find useful.

For access to DRIVER Tools, DRIVER Search and to access and re-use the DRIVER Infrastructure please go to the DRIVER Portal http://www.driver-community.eu/.

Last updated: 17-Jun-2008



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Home

FAQ

Links & Publications

**DRIVER Wiki** Contact Us





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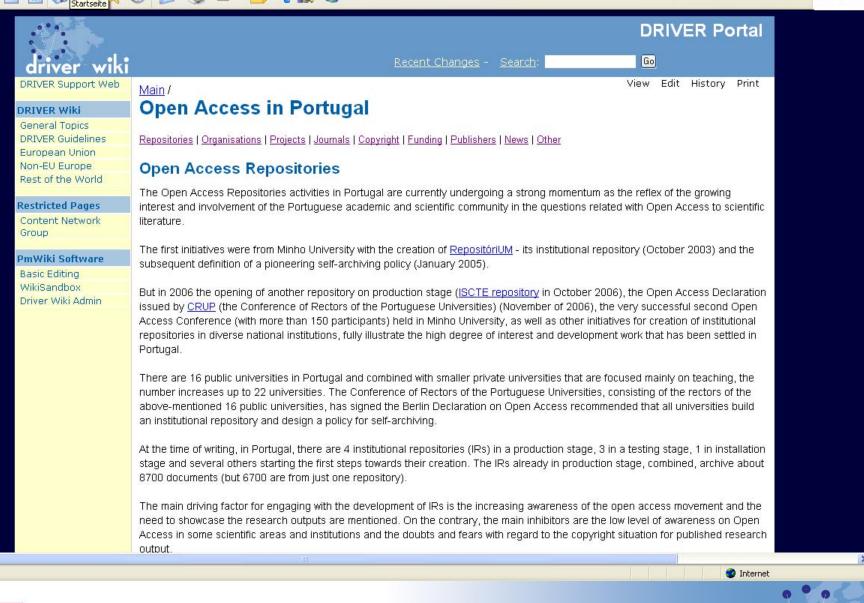






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# How can a single repository become a member of the DRIVER community?

- The concept of DRIVER sees national communities as the basis and as natural partners for the European repository network
- Contact the DRIVER Wiki and find out about your national contact point(s) ("correspondents") to the DRIVER community
  - Become a member of your existing national community OR
  - Support the building of a national community within your country (see also DRIVER Mentoring Service)
- In case there is no correspondent: register your interest on the DRIVER website to
  - Become a member of the DRIVER community







# How does DRIVER relate to national repository communities?

- National communities are usually represented by country "correspondents"
  - One institution or a group of institutions takes responsibility to build a national repository community (like DARENet-NL, SHERPA-UK, OA-Netzwerk-GE, RECOLECTA-ES, HAL-FR)
- Country "correspondents" ...
  - Maintain the national repository information on the DRIVER Wiki
  - Organise repository events in their countries
  - Translate repository guidelines and other relevant information into national languages
  - Build up national data aggregators, clean data, can offer additional services



e-infrastructure

# How does DRIVER relate to

# international repository communities?

- DRIVER sees it's mission as
  - Catalyst for a global repository infrastructure
  - Develop and maintain the European repository infrastructure node
- DRIVER liaises already with institutions and initiatives from the U.S., Latin America, China, India and Africa
- DRIVER collaborates with eIFL, the library support organisation for developing countries
- DRIVER liaises with the *Object Reuse and Exchange* (ORE) project and SPARC, U.S.





# Where can I get more information about DRIVER?

- Go to the DRIVER Portal: <u>www.driver-community.eu</u>
- Contact the DRIVER Helpdesk, helpdesk@driver-support.eu

Upcoming event: Baltimore, 17/18 November 2008; SPARC US, Japan and Europe

SPARC Digital Repositories Meeting 2008





# Publishing and the Ecology of European Research (PEER)

*EC e*Content*plus* Vorgesehener Start: 1. September 2008 Laufzeit: 3 Jahre

Partner: International STM Headoffice, ESF, Universität/SUB Göttingen, MPG/MPDL, INRIA, SURF, Universität/UB Bielefeld

# **Purpose of PEER**



- Publishers and research community collaborate
- Develop an "observatory" to monitor the impact of systematically depositing stage-two outputs on a large scale
- Gather hard evidence to inform future policies

# **Objectives**



- Determine how large-scale deposit of stage-two outputs will affect journal viability
- Determine whether it increases access
- Determine whether it affects the broader ecology of European research
- Determine the factors affecting readiness to deposit and associated costs
- Develop model(s) to show how traditional publishing can coexist with self-archiving



# **Depositing activities**

- 15 major STM publishers
- Ca. 300 Journal
- Approx. 20,000 articles per year (~60,000 articles for the project)
- 50% of the articles: Publisher > Repositories
- 50% of the articles: Author > Repositories



European University Presses take the initiative to develop an Open Access model for peer reviewed books in Humanities and Social Sciences

eContentplus EC co-funded project Duration: 30 months Start: September 1, 2008 Partners: Amsterdam University Press, Georg-August-Universität Göttingen, Museum Tusculanum Press, Manchester University Press, Presses Universitaire de Lyon, Firenze University Press, University of Amsterdam, University of Leiden

# Website: www.oapen.net





### **OAPEN** Open Access Publishing in European Networks

Home Introduction News About OAPEN Partners Join Contact Links



### Open Access Publishing in European Networks

OAPEN is a project in Open Access publishing for humanities monographs. The Open Access movement has developed rapidly in the sciences and in journal publishing. The consortium of University-based academic publishers who make up OAPEN believe that the time is ripe to fully explore the possibilities of Open Access in the humanities and social sciences.

The OAPEN partners all currently have some involvement in the Open Access movement, and you are encouraged to view their pages on this site and on their own sites.

It is expected that this project will find useful, exciting and beneficial ways of publishing scholarly work in Open Access, allowing access to important peer reviewed research from across Europe.

### The partners

Amsterdam University Press Georg-August Universitat Gottingen Museum Tusculanum Press Manchester University Press Presses Universitaires de Lyon Firenze University Press University of Amsterdam Leiden University



# **Key Objectives**

- Creating the largest freely available collection of current peer reviewed books in European languages in various fields of HSS
- To develop and promote an Open Access (OA) publication model for primary publications
- To engage all stakeholders in the publication process
- To build a network around OA book publishing
- To develop common funding models
- To adopt common standards and metadata to improve retrievability and visibility of HSS publications



# **Expected Results**

## Publication Model

- OA funding model for e-books based on scientific studies (user needs, publication cultures, OA models)
- Services and business plan for OA books and services
- Contract for licensing content
- Agreement for OAPEN partnerships

## Publishing Platform

- dedicated to monograph content in HSS in all its dimensions (text, multimedia, data, reader interaction)
- supplemented by tools and services for e-publication, digital printing (PoD), marketing and digitization

## • Networked Online-Library

- Aggregated collection of OA books
- Multi-lingual search



## **Virtual Research Environments & e-Humanities**

Textgrid: Pioneering work through building of Virtual Research Environments for Humanities

A collaborative effort of scholars, libraries, computer scientists and language experts

Two main product groups:

- *TextGridRep* (ressources such as texts or dictionaries)
- *TextGridLab* (tools and workbench)
- TextGrid I = 10/2005 03/2009
- TextGrid II = extension proposal submitted

## Funded by the BMBF, coordinated by the SUB Göttingen





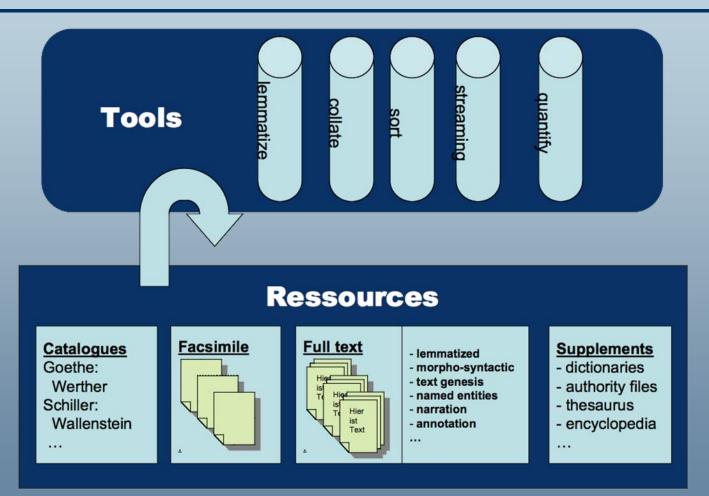
## **TextGrid in View: Goals**

- Establishment of a virtual research infrastructure
- TextGrid: a generic platform for scientific text data processing
- Service Grid (toolbox for collaborative work)
- Data Grid (virtual archive for long-term data preservation)



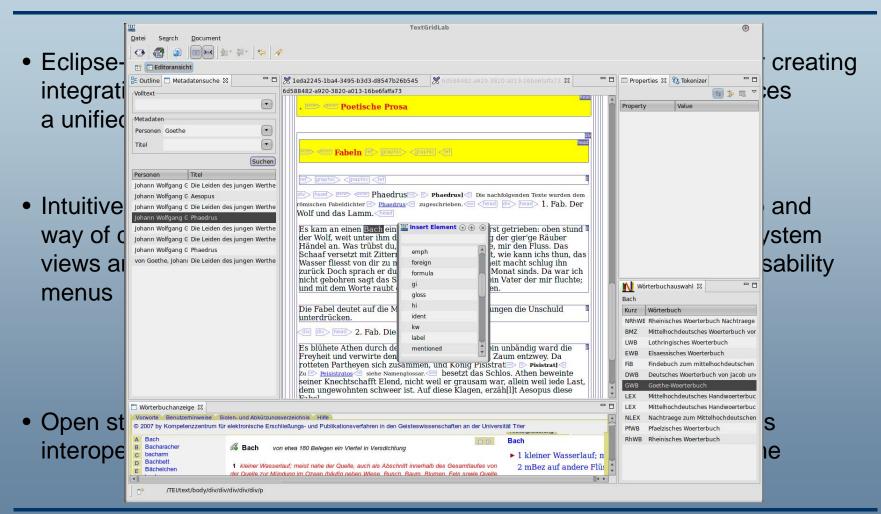
Partners • Goals • TextGridLab • Tasks • Outlook

## **Philological View: TextGrid Tools and Services**



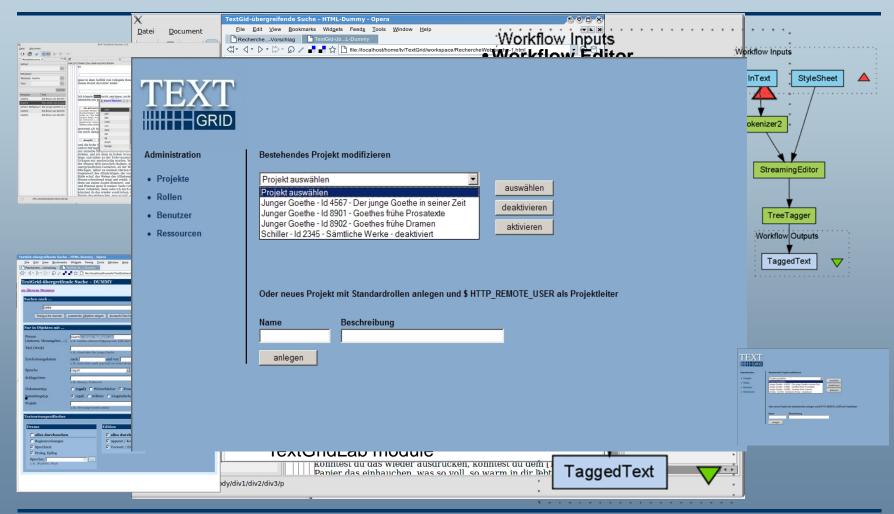
Potential User Groups • TextGrid Tools and Services

## **TextGrid in View: TextGridLab**



Partners • Goals • TextGridLab • Tasks • Outlook

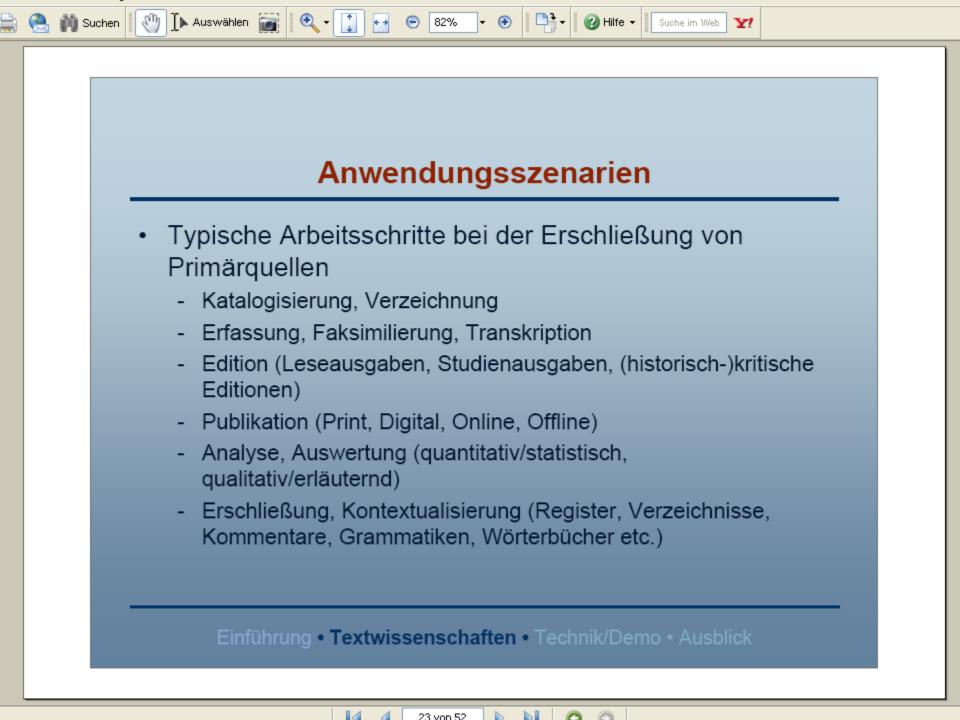
## **TextGrid in View: TextGridLab**



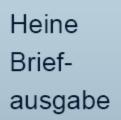
### Partners • Goals • TextGridLab • Tasks • Outlook

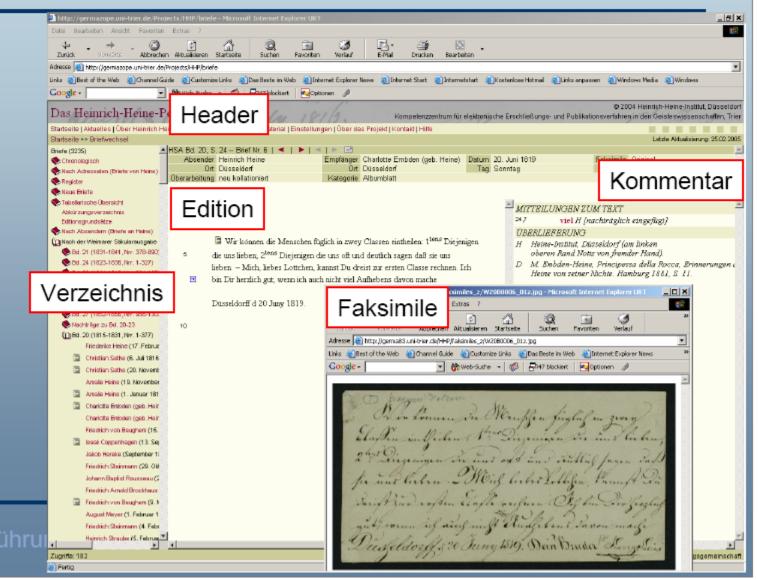


- Integration of all tools in one user interface (workflow editor, project management ...)
- Definition and configuration of workflows and processes
- Road map for community building
- Models for sustainability
- International Cooperation (e.g. service descriptions interoperable with Interedition)



## Beispiele: Erschließung / Kontextualisierung





## Beispiele: Erschließung / Kontextualisierung

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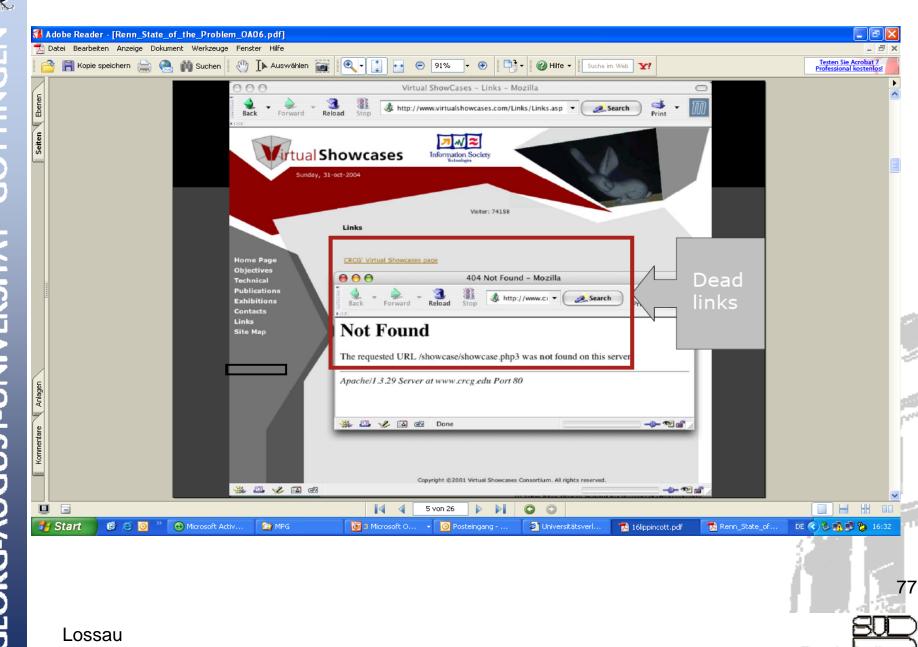
## KOPAL, a German Long-term Preservation System

Partners:

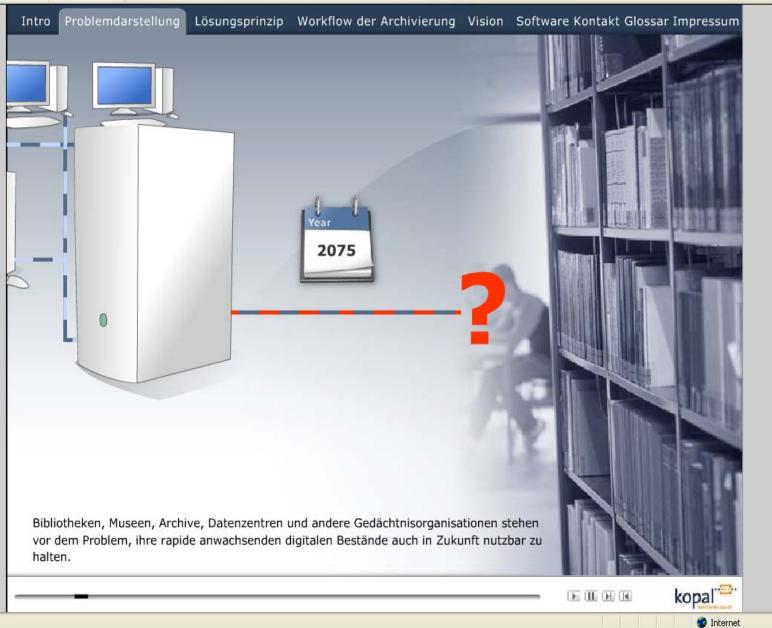
- German National Library (DNB)
- Göttingen State and University Library (SUB Göttingen)
- IBM
- GWDG (Computing Centre for Göttingen University and the Max-Planck-Society)

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http://kopal.langzeitarchivierung.de/



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Workflow der Archivierung

1. Caroli Linnæi ... Fauna Svecica Sistens Animalia Sveciæ Regni Creators:Carl Linné Place of publication:Leiden Date of publication:1746

2. Title:Die Kennzeichen der Insekten Creators:Carl Linné, Johann Heinrich Sulzer, Johannes Geßner Place of publication:Zürich Date of publication:1761

3. Title:Caroli Linnæi ... Fauna Svecica, sistens animalia Sveciæ Regni Creators:Carl Linné Place of publication:Stockholmiae Date of publication:1761

Ein Nutzer greift auf elektronische Dokumente oft über Online-Informationssysteme zu. Liegt ein solches Objekt in langzeitarchivierter Form vor, so kann es direkt abgerufen und in der aktuellen migrierten Form geliefert werden. Auf Wunsch erhält der Nutzer auch ältere Archivversionen.

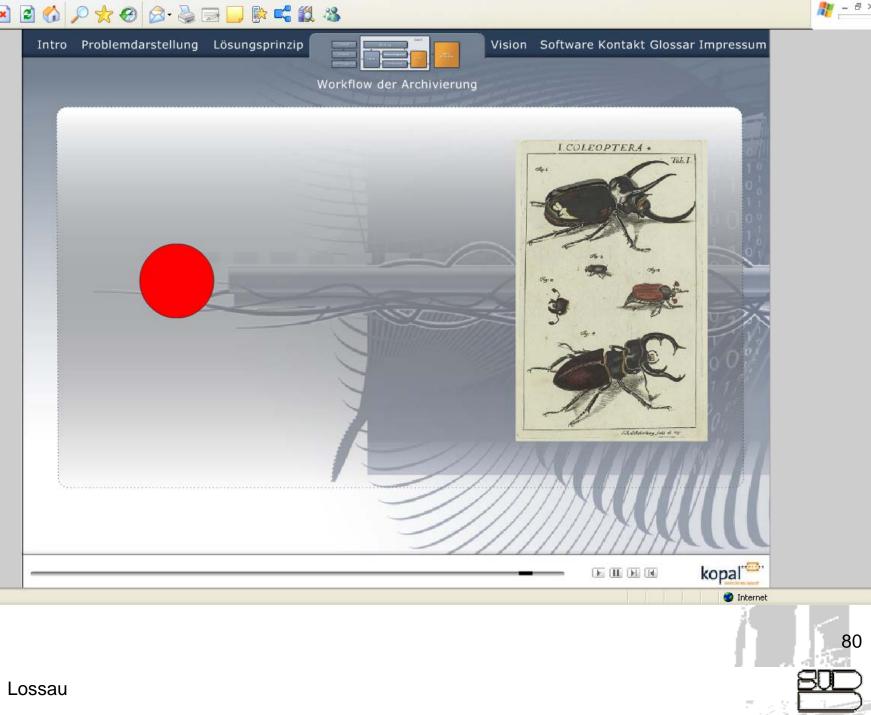
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Über kopal

Ziel

Service

Projektverlauf

Arbeitspakete

Downloads

Technik

Standards

Software

koLibRI -

gefördert vom

kopal Library for

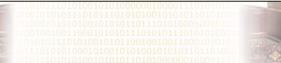
Retrieval and Ingest

Bundesministerium

für Bildung

und Forschung

Objektspezifikation



#### English | Startseite | Impressum

#### News

#### kopal goes live: Nutzungsmodelle und Perspektiven eines Langzeitarchivs digitaler Informationen

Die Präsentationen der kopal-goes-live Veranstaltung am 18. Juni 2007 in der Deutschen Nationalbibliothek Frankfurt finden Sie **– HIER** oder auf unserer **– Download-**Seite.

#### Über kopal

#### kopal - Kooperativer Aufbau eines Langzeitarchivs digitaler Informationen

Digitale Dokumente langfristig zur Verfügung zu stellen, ist ein bislang ungelöstes Problem unserer Informationsgesellschaft. Mit der ansteigenden Zahl elektronischer Veröffentlichungen wächst die Notwendigkeit einer zuverlässigen Archivierung. Im Zuge der technischen Entwicklung werden immer neue digitale Dateiformate verwendet, die an spezielle Programme und damit an bestimmte Rechnertypen und Betriebssysteme gebunden sind. Ältere Daten sind so mit aktueller Softund Hardware oft nicht mehr nutzbar. Das Projekt kopal widmet sich der Lösung dieser Problematik in Form eines kooperativ entwickelten und betriebenen Langzeitarchivs für digitale Daten.

Der **= kopal-Demonstrator** veranschaulicht Konzept und Arbeitsablauf des kopal-Archivsystems.

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#### Aktuelles

#### Open Source LZA Tool Xena veröffentlicht...

von Stefan Strathmann, 26.09.2007

16. Ausgabe von 'What's new in digital preservation'...

von Stefan Strathmann, 24.09.2007

Sommerausgabe des Magazins RecordKeeping veröffentlicht...

von Stefan Strathmann, 29.08.2007

nestor Newsletter

Kontakt

Glossar / Linkliste

Projektpartner

Deutsche Nationalbibliothek



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Servercluster, GWDG (Computing Centre for Göttingen University and the Max-Planck-Society)

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## Future roles for research libraries

#### **Digitisation and Networked Collections**

Digitise collections and bring them into international networks (incl. Organisational and policy issues)

### Build national and international networks of digital repositories

- Setting up institutional repositories according to international standards (see certification like DINI, DRIVER Guidelines)
- Organise the deposit of all research publications of your organisation
- Integrate the local repository in the national and international repository network
- Organise and implement the linking from documents to primary data sets and any other digital object (film, language recording etc.; using e.g. the TIB Hannover primary data identifier registry system)

### **Future roles for research libraries**

Enable and support open access publishing for journals and books

- Build up University Publishing Houses (perhaps in a network) and publish books in Open Access
- Advocate Open Access at your institution among scientists and governing boards
- Negotiate contracts with publishers, which allow open access publishing (original PDF file) also on the institutional repository
- Carry out projects with publishers, to shift cashflow from subscriptions to the payment of the publishing process, resulting in Open Access

### Information technology and service watch

 Watch technology developments of new research tools (such as the "Textgrid suite") and offer those services to your scholars (directly or as mediator)

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### **Future roles for research libraries**

## Library structure and staff development

- Restructure your libraries in order to free-up personell for new services
- Carry out projects to get new staff with technology skills into the library
- Train your permanent staff to meet future demands (e.g. TICER Summer School, Tilburg University, NL)

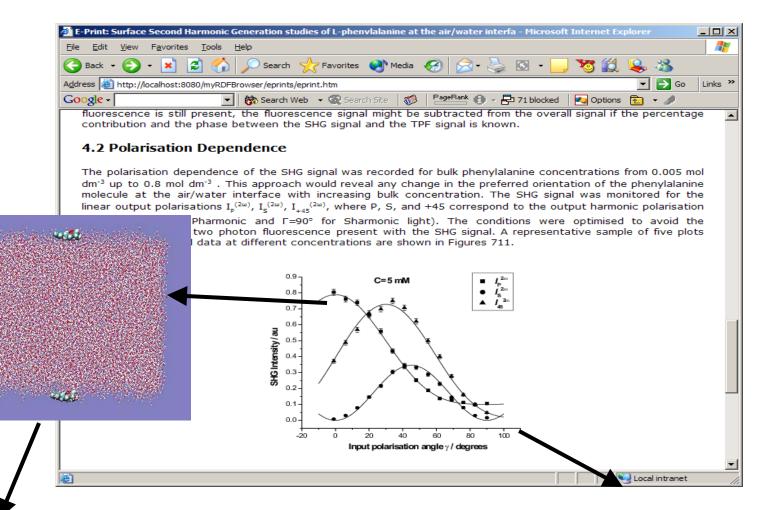
## <u>Characteristics of digital future library services</u>

- Libraries will continue to digitise their collections
- Libraries will link documents to primary data sets, further digital objects, learning modules, providing standard metadata, persistent identifiers
- All search & navigation (like OPAC) and other information handling tools (like textgrid) can be exported into the desktop environment of researchers & students ⇒ Reseachers can compose their own "Information Service" desktop (eSciDoc, Germany; Research Information Centre, UK)
- Document delivery will be subsequently complemented (replaced?) by online repository networks (see DRIVER in Europe)

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Libraries provide digital preservation services

# **Publications as Live Documents**



# Link to simulation software and data in archive

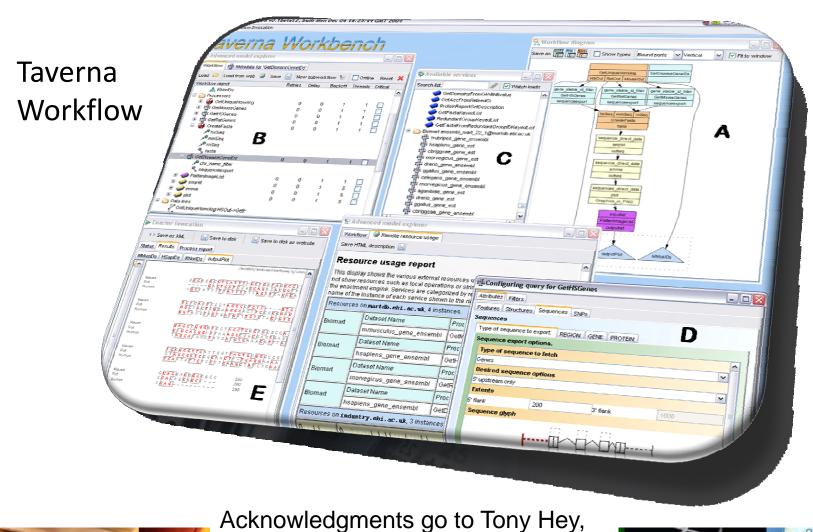
# Link to data, follow links back to the raw data archive

Acknowledgments go to Tony Hey,

VP Microsoft, 2007

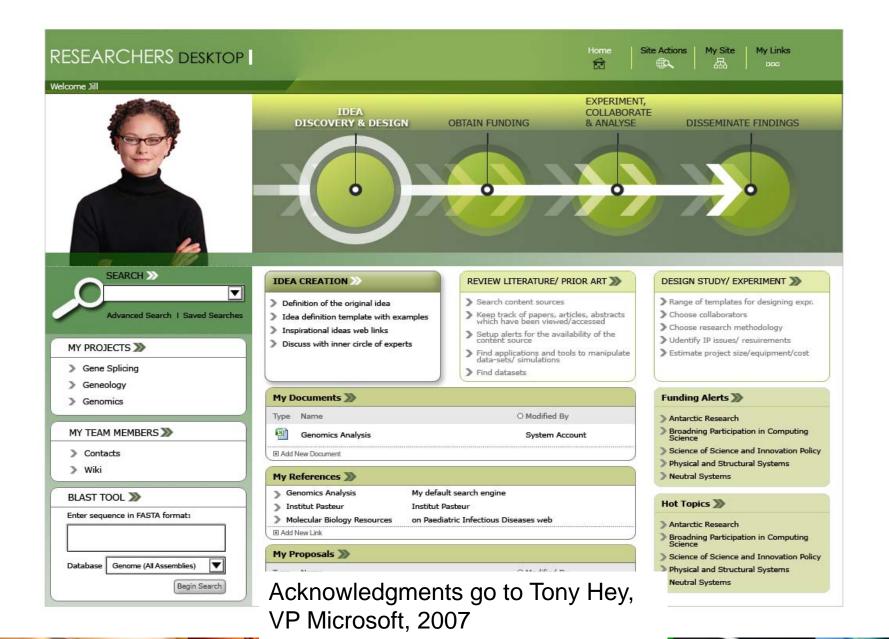


## e-Science: Services can be composed



VP Microsoft, 2007

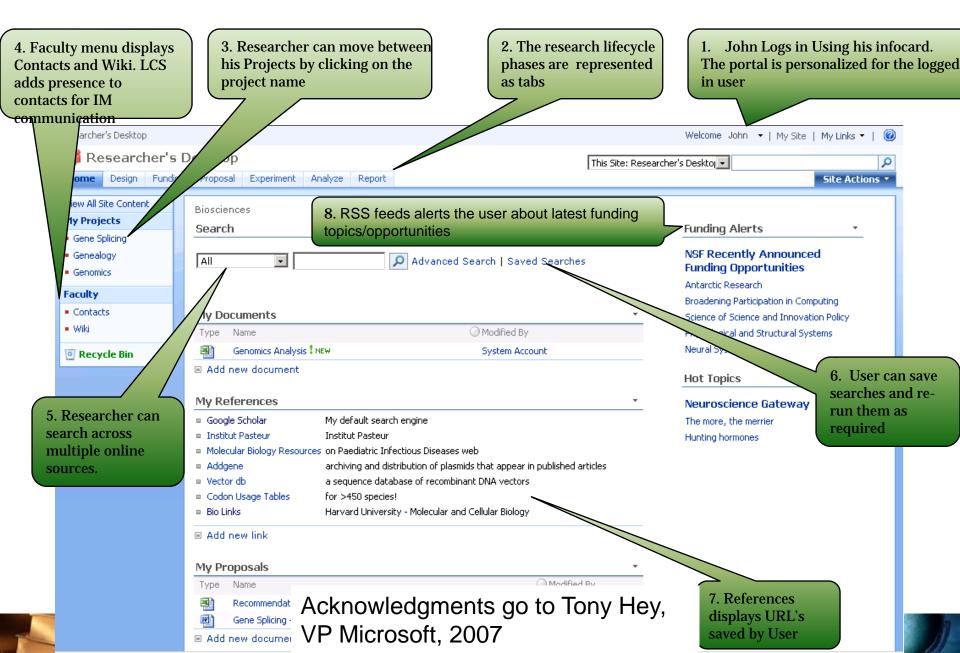
## **The BL Research Information Center**



## **Tools and Services in Context**



### Home page with RSS & Live Search integration



### <u>Digital knowledge management of libraries for Virtual Research</u> Environments ("e-Research")

### **Traditional Libraries**

Books, Journals

- Book Shelves
- Online catalogues
- Classifications
- Closed and open stacks, conservation&preservation
- Acting local

Libraries & e-Research

- ~ + Primary data, films, fotos, language records, radio broadcasts, simulations
- Online repositories (publications and primary data)
- Qualified search engines
- Dynamic, semantic networks/ontologies/semantic maps
- Digital preservation
- Acting cross-institutionally & internationally



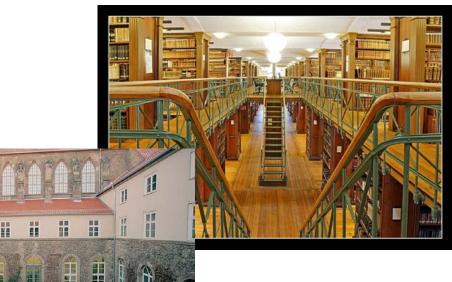


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# Thank you for your attention!



Photos: Ronald Schmidt, Göttingen



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