




Technische Universität Hamburg-Harburg

# "In formation" of better learning environments

## - the educational role of the university library

Thomas Hapke

University Library of the Hamburg University of Technology (TUHH)

**is not enough!**

www.tub.tu-harburg.de

Thomas Hapke, July 2005

"In formation" of better learning environments – the educational role of the university library  
LIBER Conference 2005, Groningen



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# Libraries are educational as such!




"... Librarie-keepers ... ought to becom Agents for the advancement of universal Learning ... his work then is to bee a Factor and Trader for helps to Learning ..."

John Dury, 1650

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## Learning today as seen from yesterday?!

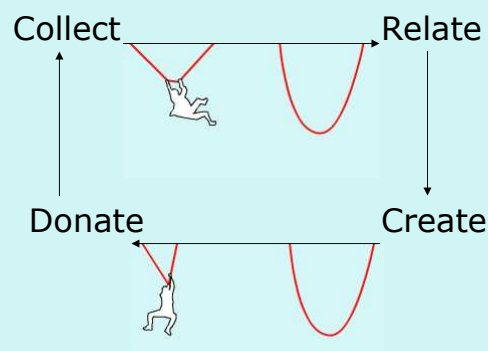


Jean Marc Cote, 1899

"the study ... of the scientific methods of using books should have an assured place in the University Curriculum. ... [it] will aid them [the graduates] in their studies through life."

William F. Poole, 1899

## Components of learning today

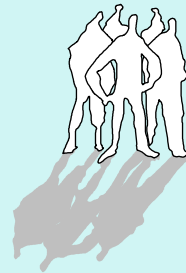


(according Shneiderman, 2002)

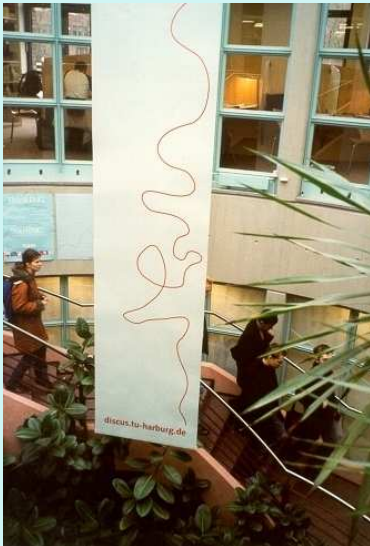
## Learning today

### 'Real' learning is

- active and self-directed
- including individual background and own interpretation
- situative and context-specific
- a social process and creates communities
- is part of life



## Learning environments in universities



The thread in the TUHH library

### Change, diversity and locality

### Students as keystone species

Postmodern attitudes -  
consumer behavior,  
flippancy, fragmentation of  
knowledge

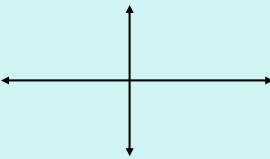
### Growing diversity and complexity of information resources

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## Serving environments for learning through the library

**4. Organizational issues:**  
The learning library

**1. Digital:**  
(E-)Learning  
and digital  
libraries



**2. Physical:**  
The library as  
a place

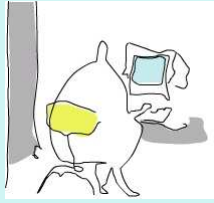
**3. Regarding contents:**  
The library as a teacher!?  
Information literacy activities

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## (E-)Learning and digital libraries

- **Need for a single-step approach for students to access courses with their materials**
- **Output of e-learning: texts, scripts, presentations,...**  
    => **Digital library of learning objects**
- **Integrating library services and learning management systems (LMS)**
- **Facilitating customers' creation of information**
- **Incorporating services for building communities, e.g. wikis and weblogs**



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## E-learning and "traditional" library services

- Managing e-resources: metadata
- Virtual and real reference
- Electronic and "real" reserves as "early" LMS
- Buying e-books
- Producing course-specific subject access points
- Serving (digitization, copyright clearance,...) particular target groups: faculty, students, specific departments, ...
- Lending of technology (USB sticks, handhelds, laptops)



## The library as a physical place



Grainger Engineering Library, Urbana-Champaign, University of Illinois

### The library as learning laboratory!

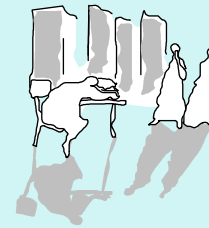
**User activities:**  
Information seeking,  
recreation, teaching and  
learning, connection,  
contemplation



## The library as a physical place



- Individual study and group-study rooms
- Computer labs: From the "computer farm" to distributed clusters throughout the building
- From the reference desk to space for individual consultation
- Classrooms in the library
- "Nonlibrary" uses: meeting and socializing, eating and drinking, having fun, ...



## The library as teacher!?

Not the "teaching library" but:

**The learning facilitating, enabling or empowering library!**

=> Information literacy (IL) as a  
"prerequisite for the information society"  
(Sheila Webber)



IL includes

- Intellectual property and copyright
- Plagiarism
- E-publication issues

Fisher Fine Arts Library, University of Pennsylvania, Philadelphia

## Information literacy activities

### *IL and learning / Examples of the TUHH library*

- Many definitions, holistic are the better one's!
- Not only information seeking but information use
- Specific to subject, culture and context
- **IL is a learning experience!** (Mandy Lupton)

#### **My definition:**

More than efficient retrieval and navigation strategies **information literacy is the creativity to organize and shape one's own information process in a conscious and demand-oriented way.**

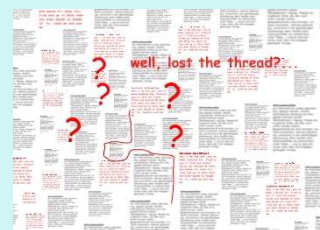


## Information literacy activities

### *IL and learning / Examples of the TUHH library*

#### **Issues**

- **How will IL change with changing e-environment?**
- **Evaluating the outcome of IL activities!**
- **Including the IL needs of business enterprises!**  
**Connection to knowledge management**
- **Considering criticism of IL!**
- **IL is an issue of the university,  
not of the library alone**





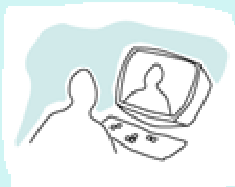
## Information literacy activities

### *IL and learning / Examples of the TUHH library*

**"The value of generic, standalone, parallel and foundation courses for IL education is dubious."**

(Mandy Lupton)

- **Nevertheless: Meet the teachable moment through a diverse range of activities in IL and reference!**





- **One-shot sessions:**  
in-class or outside of class
- **Online Tutorials**
- **Just-in-time-support as**  
online reference
- **Others: face to face meetings,**  
newsletter via email,  
bookmarks, leaflets...



## Information literacy activities

### *IL and learning / Examples of the TUHH library*

- **One-shot session**

TUHH > TUB HH > Service > Consulting > The world of engineering information – 10 points to survive

Catalog  
MyLibrary  
Ask a librarian !

**TUB HH**

- News
- About us
- Circulation
- Searching
- **Service**
- Consulting
  - Guided Tours
  - Tutorials
  - From A to Z
  - FAQs
  - Forms
  - Miscellaneous
  - For schools
- DISCUS
- Sitemap
- Intranet


Search help

TUB HH  
Denickestrasse 22  
21073 Hamburg

### The world of engineering information – 10 points to survive

- Point 1: Be aware of your information behavior.
- Point 2: Use tutorials, subject gateways and literature guides to inform yourself about searching information
- Point 3: Use your local research library and consult a librarian or information specialist.
- Point 4: Use encyclopedias and other reference works for first orientation!
- Point 5: Play with search terms when exploring database features (Boolean logic, wildcard symbols, neighborhood operators, search fields, ...)
- Point 6: Search for journal articles in subject-specific databases
- Point 7: Don't forget to search for patents and data
- Point 8: Evaluate your search results with respect to relevance as well as quality of the document you've found and think about processing your information
- Point 9: Keep yourself up-to-date by browsing through journal contents, subscribing to mailing lists and reading weblogs.
- Point at the end (10): Reflect on information ethics (Intellectual property, copyright and plagiarism) and policy (ownership, privacy) as well as economics (commercial and open access).
- Where to get more knowledge about information!






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## Information literacy activities

*IL and learning / Examples of the TUHH library*


• **Bilingual online tutorial DISCUS**



Oh, that means I have to type less?!!!  
Great! Creative idleness is exactly what I like!!!  
[Sigh! Without words!]

In the paragraph you've learned search term doesn't mean easy way to search that begin with you can use v to search the

Using databases




Wildcards and Joker

Tip: Read more about it in "DISCUS compact"!

Wildcards and jokers

**Developing Information Skills and Competences for University Students**


**Grasp the thread at [discus.tu-harburg.de](http://discus.tu-harburg.de)**



[www.tub.tu-harburg.de](http://www.tub.tu-harburg.de)

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## Information literacy activities

*IL and learning / Examples of the TUHH library*

- **User as information player: Learn to play by playing with databases and search terms**
- **Giving orientation in a subject-specific context**



**Boole's Restaurant**

Please click on the dish you want to order! What do you get?

Boole's restaurant	
vegetables AND soup	5,50
soup OR salad	3,-
soup NOT vegetables	3,-
soup AND salad AND potato	10,-
salad AND (potato OR pasta)	10,-
salad OR soup AND (vegetables OR potato)	15,-
(salad OR soup) AND (vegetables OR potato)	15,-

What do you get?

- ☐ vegetables-soup
- ☐ potato-soup
- ☐ potato-salad
- ☐ green salad
- ☐ tomato-salad
- ☐ potato
- ☐ pasta
- ☐ pasta-salad
- ☐ vegetables
- ☐ soup
- ☐ salad

[www.tub.tu-harburg.de](http://www.tub.tu-harburg.de)

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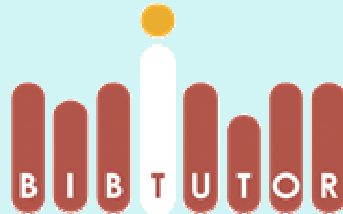
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## Information literacy activities

*IL and learning / Examples of the TUHH library*

- **Project BibTutor**

- **Facilitating searching in original database interface**
- **Support of database selection**
- **Context-specific retrieval support using methods of artificial intelligence**
- **Just-in-time-E-Learning with links to DISCUS**



## Information literacy activities

*IL and learning / Examples of the TUHH library*

### **Strategic goals of the projects:**

- **Rising awareness, giving orientation**
- **Landmarks showing the library does e-learning**
- **Making the library visible when building up a new electronic infrastructure**
- **Enlarging cooperation with faculty**



## Organizational: the learning library

### Collect

- Experiences from other libraries
- Data on users and their behavior
- Ideas from the literature



### Relate

- To your own institution and context
- To your partners within your parent institution

### Create

- New services and transform old services
- New organizational structures
- New relations to old and new partners



### Donate

- Increase in value to your customers

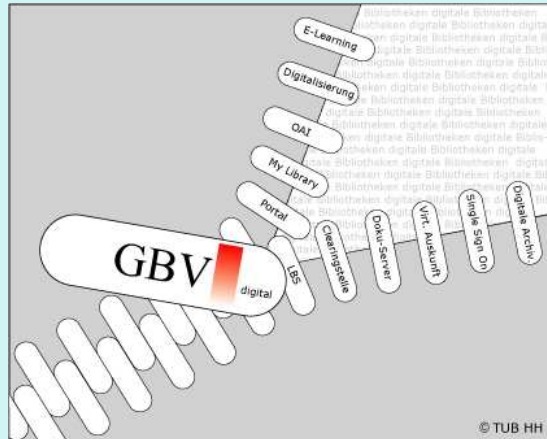
## Organizational: the learning library

- From information commons to learning commons
- Cooperation with other university service units:  
A new partner - the student services department
- British "Learning Centre" as model
- Organizational anchorage of IL activities



Drexel University Library, Philadelphia

## Organizational: E-learning and library unions

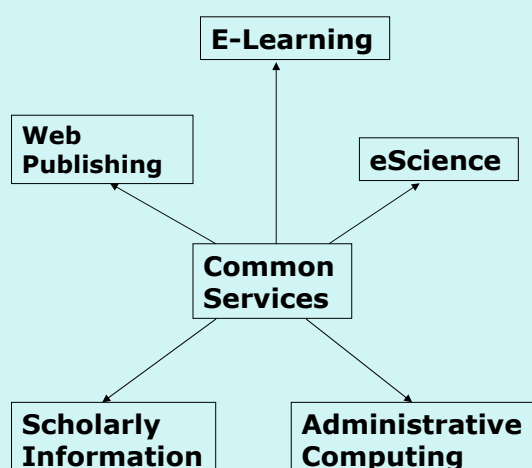


**GBV digital – a strategic working paper  
of the GBV Common Library Network**

- **E-learning is part of digital library activities**
- **Heterogeneity and complexity of local systems**
- **Supporting all the “service domains” in higher education (Neil McLean)**
- **Integrating in “common services”**

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## Organizational: E-learning and library unions



- **E-learning is part of digital library activities**
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## The learning facilitating library!



- **University libraries as service institutions will become a closer part of research and learning**
- **Consultation and media will be offered when needed at point of use**
- **The library is one partner among many others in the university**
- **Learning strategy of a university has to include a "library" concept**

## Mediating information through



- **Collecting**
- **Organizing**
- **Mobilizing** images and knowledge
- **Educating**

**A card game!**

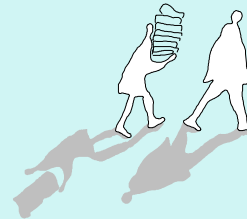
**Thank you!**

Layout and graphics: Courtesy Detlev Bieler

Website Thomas Hapke

[www.tu-harburg.de/b/hapke/](http://www.tu-harburg.de/b/hapke/)  
or

[www.tub.tu-harburg.de/index.php?id=192](http://www.tub.tu-harburg.de/index.php?id=192)



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## Some sources 2:

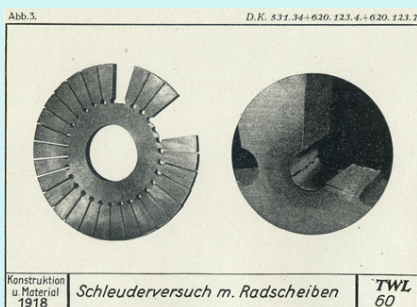
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- **The world of biotechnology information - 8 points for reflecting on your information behavior**, Appendix I (Idea and text basis by T. Hapke), pp. 419- 426, in: Buchholz, Klaus ; Kasche, Volker ; Bornscheuer, Uwe Th.: Biocatalysts and enzyme technology. Weinheim : WILEY-VCH, 2005.). Enhanced online version at [www.tub.tu-harburg.de/2552.html?docinput\[lang\]=en](http://www.tub.tu-harburg.de/2552.html?docinput[lang]=en)

## Today's challenges worked on yesterday

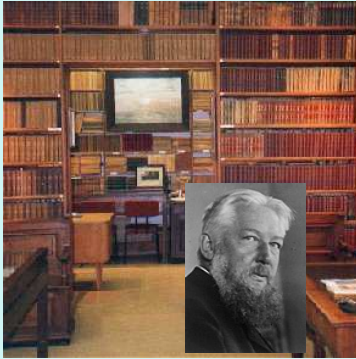


### "Head Office for Technical and Scientific Teaching Materials (TWL)"

- Founded in 1922 in Berlin by the "German Federation of Technical-Scientific Societies"
- Central collection of slides with standardized metadata and formats
- Educating engineers through "Guidelines for lectures"



## Today's challenges noticed yesterday



Ostwald's private library,  
Grossbothen, Saxony



**"It is not enough to found libraries. It is necessary ... to instruct those eager for knowledge in the best methods of utilizing their treasures."**

**"Art of discovery" will be "part of intellectual inventory of every one!"**

**Wilhelm Ostwald, chemical Nobel laureate 1909 and founder of the "Bridge", an institution for "the Organization of Intellectual Work" in 1911 in Munich, called the "World Brain"**