Access to Information in Digital Libraries: Users and Digital Divide

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Outline

- The Context
- Digital Divide
- Role of Digital Library Researchers
- Access to Digital Information
- Human Information Behaviour
- Problems and User Comments
- Possible Solutions
- Discussions

The Context: WSIS

- World Summit of the Information Society, Geneva, 10-12 Dec. 2003:
  - Declare our common desire and commitment to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge

WSIS Declaration

- 'We recognize that education, knowledge, information and communication are at the core of human progress, endeavour and well-being.'
- 'all stakeholders should work together to: improve access to information and communication infrastructure and technologies as well as to information and knowledge …

Digital Library R&D: Goals

- To improve access to information
- To facilitate creation and distribution of information
- To help in making optimum use of information in all activities
- To help in the creation of a global information society

Questions

- But, how far have we succeeded to achieve these goals, and
- What are the major problems …….

Digital Divide

- The perceived disadvantages of those who are either unable, or do not choose, to use the appropriate ICT to perform their activities, decision making, learning and pleasure
- Access to digital libraries and information services is significantly influenced by digital divide
- Proper access to, and use of, digital libraries is a key to bridging digital divide

Digital libraries and information

- Digital information resources can be accessed in a no. of ways, e.g., through:
  - Institution's library webpages
  - Webpages of specific digital libraries such as NDLTD, NCSTRL, NZDL, ACM digital library, PubMed
  - Subject Gateways, such as SOSIG, Biz/ed, OMNI
  - Search service providers such as Dialog, Ovid online, Proquest
  - Web search tools: search engines including meta search engines

Questions

- Do the users always find it easy to get access to the right information?
- How easy are today's hybrid libraries to find all the information resources required to solve a problem or accomplish a task?
- What can we learn from the recent human information behaviour research?

Human Information Behaviour

Issues	Web	Online IR	OPAC
Queries per user per session	1-2	7-16	2-5
Terms per query	2	6-9	1-2
Doc viewed/session	<=10	approx 10	<50
Queries with adv. options	9%	9%	8%
Queries with Boolean operators	8%	37%	1%
Queries improperly formatted	10%	17%	7-9%

HIB: General Comments

- Users find it difficult to formulate complex queries.
- In general users spend very little time on searching a given web search tool or database.
- In most cases users formulate very short and simple queries with one or two search terms and very few search operators.
- Users spend very little time in deciding the usefulness or relevance of the retrieved items.
- Very few queries contain advanced search features.

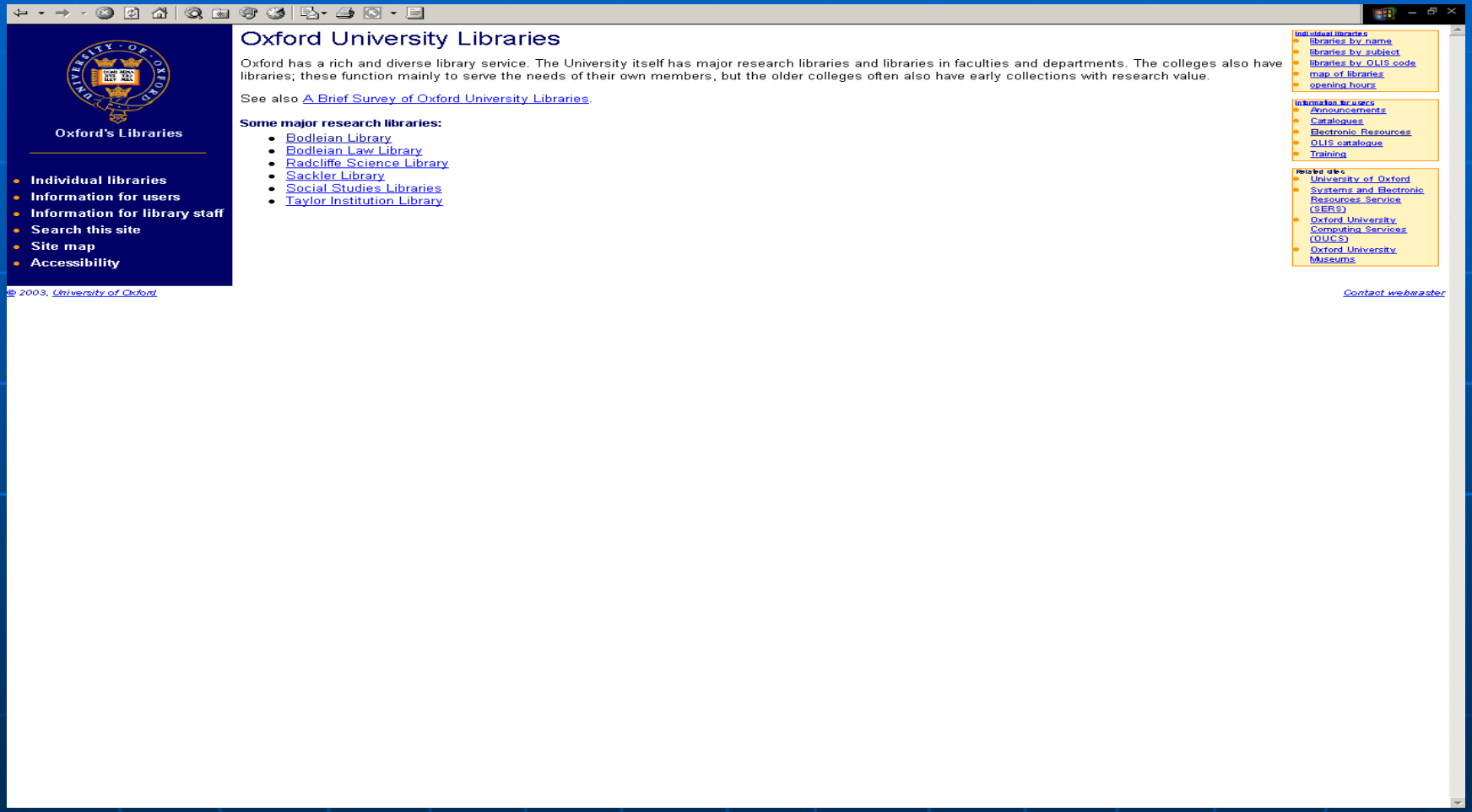
Current Digital Libraries

- We have a variety of digital library services
- Users are most likely to use a hybrid library
- A hybrid library provides access to a variety of electronic information resources and services
- Most HLs provide separate interface for each resource type

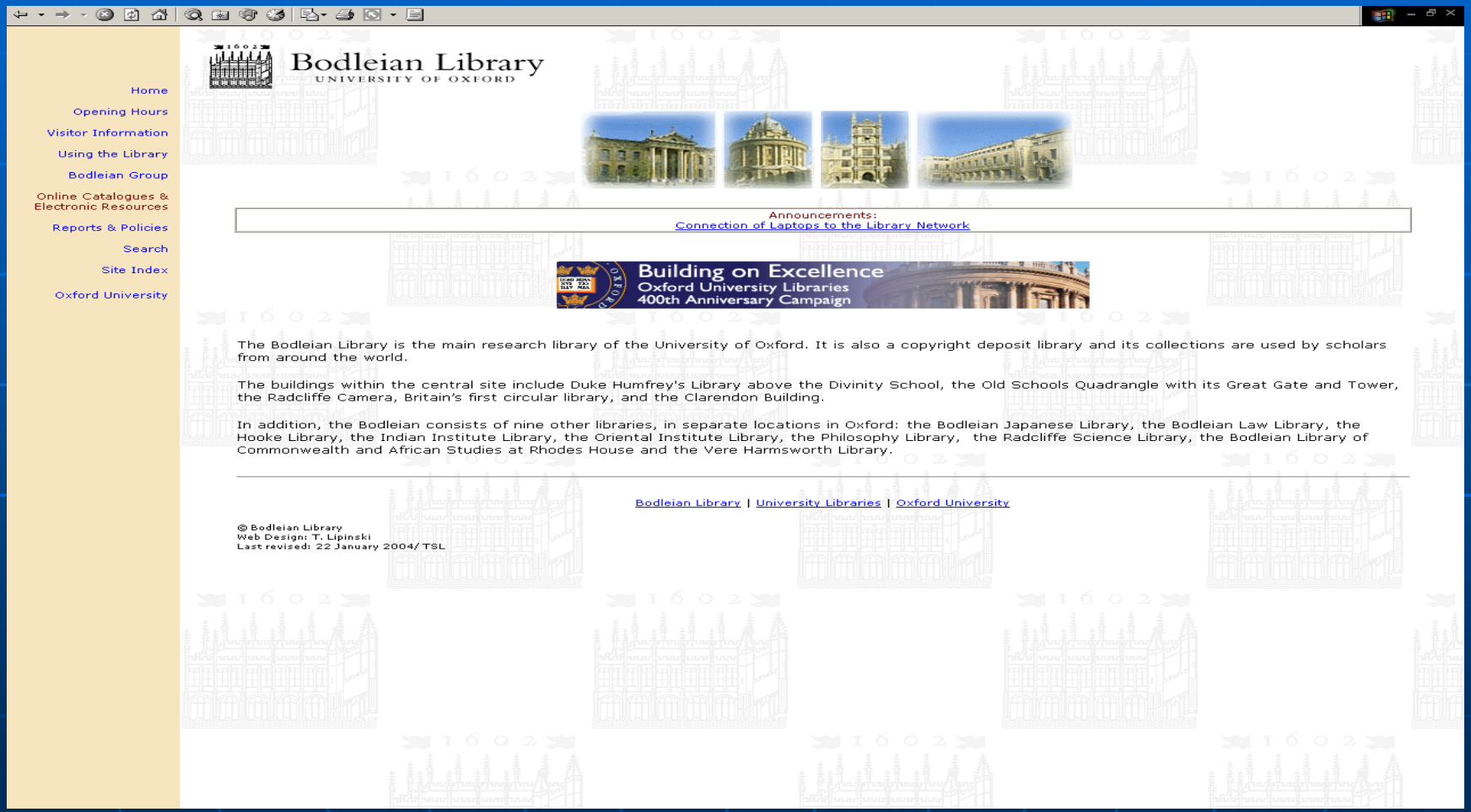
University of Strathclyde Library

Univ. of Strathclyde Library (2)

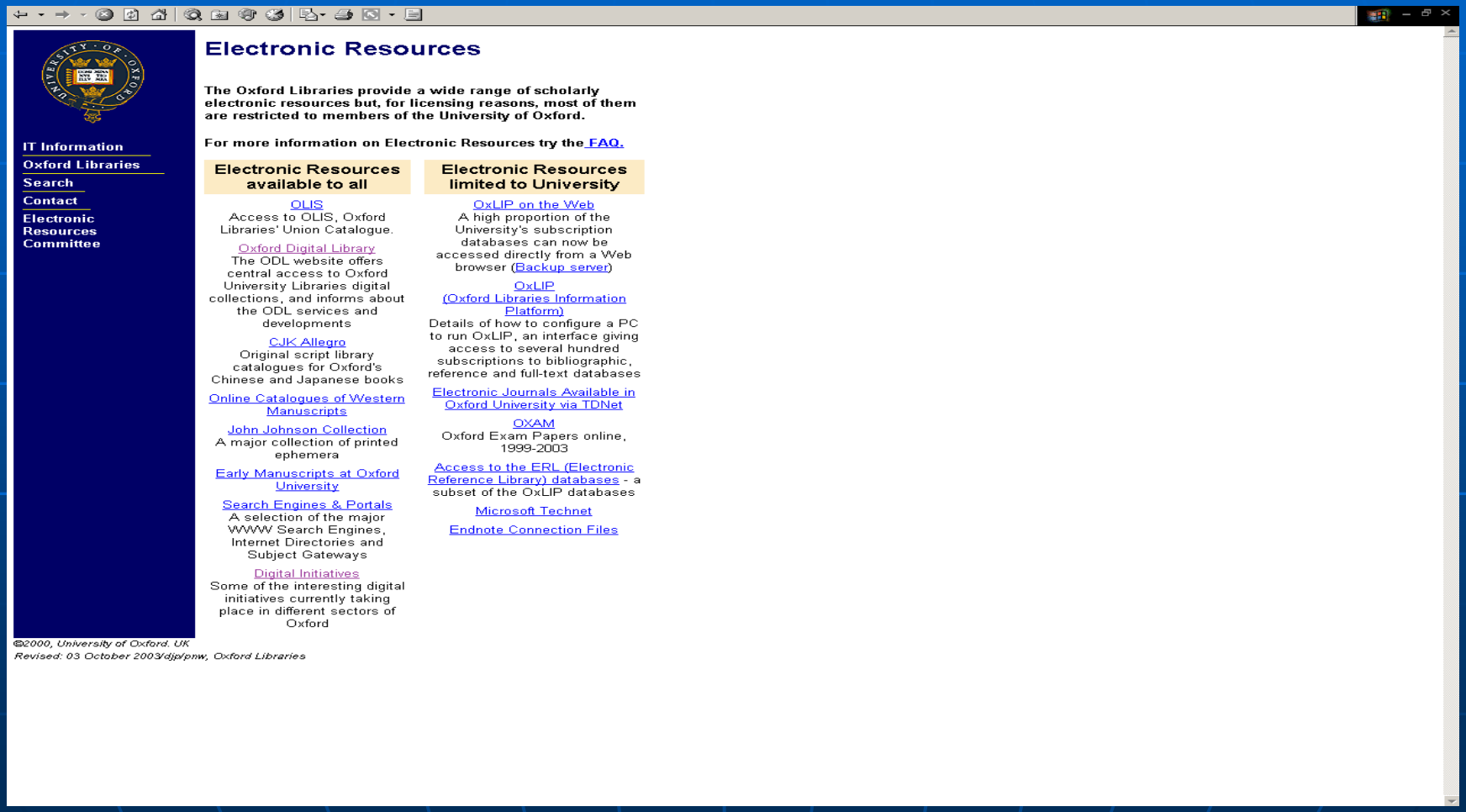
Oxford University Libraries (1)



Oxford university Libraries (2)



Oxford University Libraries (3)



IT Information
Oxford Libraries
Search
Contact
Electronic Resources Committee

Electronic Resources

The Oxford Libraries provide a wide range of scholarly electronic resources but, for licensing reasons, most of them are restricted to members of the University of Oxford.

For more information on Electronic Resources try the FAQ.

Electronic Resources available to all

OLIS
Access to OLIS, Oxford Libraries' Union Catalogue.

Oxford Digital Library
The ODL website offers central access to Oxford University Libraries digital collections, and informs about the ODL services and developments

CJK Allegro
Original script library catalogues for Oxford's Chinese and Japanese books

Online Catalogues of Western Manuscripts

John Johnson Collection
A major collection of printed ephemera

Early Manuscripts at Oxford University

Search Engines & Portals
A selection of the major WWW Search Engines, Internet Directories and Subject Gateways

Digital Initiatives
Some of the interesting digital initiatives currently taking place in different sectors of Oxford

Electronic Resources limited to University

OxLIP on the Web
A high proportion of the University's subscription databases can now be accessed directly from a Web browser (Backup server)

OxLIP (Oxford Libraries Information Platform)
Details of how to configure a PC to run OxLIP, an interface giving access to several hundred subscriptions to bibliographic, reference and full-text databases

Electronic Journals Available in Oxford University via TDNet

OXAM
Oxford Exam Papers online, 1999-2003

Access to the ERL (Electronic Reference Library) databases - a subset of the OxLIP databases

Microsoft Technet

Endnote Connection Files

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Revised: 03 October 2003/djp/pnw, Oxford Libraries

User Reactions to a Search

- In a study, 55 PG students were asked to choose a research topic and conduct a literature search using a hybrid library
- They were not given any sp. Time limit, but were advised to stop when they found that the retrieved information was adequate, or nothing was found after spending quite a bit of time on any sp. Resource type
- They were asked to note down the search process, and the difficulties encountered

Some user comments

- For a successful search users need some basic ICT and information literacy skills
- Different systems – online search services, e-journals, etc. have different search interfaces
- Familiarity with the search topic, structure of the digital library and the organisation and content of the various systems helps
- Some search options, e.g., 'keyword', 'subject', 'title keyword', and 'subject keyword', are often confusing

User Comments (2)

- Off-campus searching is often very time consuming and frustrating
- Sometimes a search produces too many hits and needs a lot of time to decide the relevance
- A lot of useful information is available on the department and faculty intranet sites which are not accessible through the library web pages
- Library webpage does not link to subject gateways
- Organization of information on the main library page has an impact on the user's selection of a specific digital library service; sometimes the specific services are hidden under several layers

User Comments (3)

- Given the multiple variety of information resources, it is often difficult to decide which one to use; to decide the most relevant items is even more difficult
- While searching for information across a range of systems, the results from one particular search are to be saved first, then the user has to come back to the library webpage, and choose another system to search; often the user has to go through the whole process again
- Selection of appropriate search terms is a big challenge, especially for a complex or an unknown topic, and yet this is the first step in any search

Possible Solutions

- Provision for more digital literacy training
- A one-stop window for searching all varieties of digital information
- Cross-database search facilities through one interface
- Provision for user-driven information access systems
- A task-based information access system for providing access to library, internet and intranet resources

Discussions

- Any Questions:
- Thank You!