Fiesole Retreat 2004

International Library Collaboration

Richard Boulderstone
March 19, 2004

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Based on presentation I gave to the Senior Leadership Team and ET so apologies to anyone who finds this familiar!
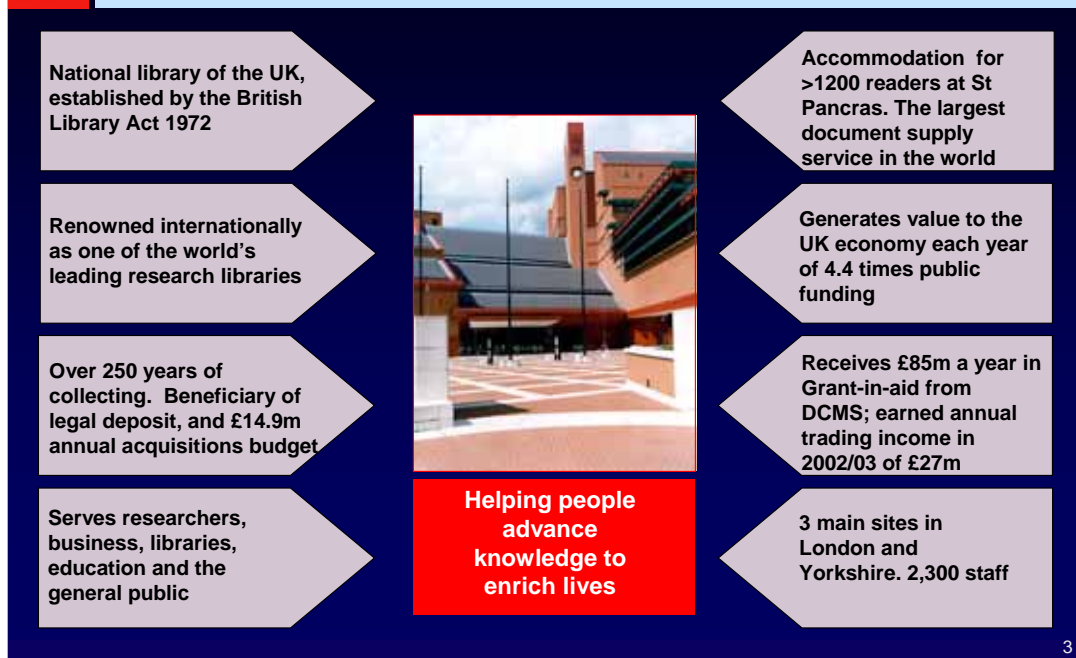
I am Richard Masters, the Programme Manager for the Digital Object Management programme – my role is to develop the programme, or set of projects and activities that will enable the vision and strategy as set by ET and the Programme Board to be realised. Then monitor progress and ensure that the deliverables are bringing about the required change.

These are early days – the one thing we know is that it is a large programme with a long life which will surely touch everyone.

Agenda

- The British Library
- Collaboration
- STM Major Trends
- STM Potential Solutions
- Conclusions

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The British Library

BRITISH LIBRARY

National library of the UK, established by the British Library Act 1972

Renowned internationally as one of the world's leading research libraries

Over 250 years of collecting. Beneficiary of legal deposit, and £14.9m annual acquisitions budget

Serves researchers, business, libraries, education and the general public

Helping people advance knowledge to enrich lives

Accommodation for >1200 readers at St Pancras. The largest document supply service in the world

Generates value to the UK economy each year of 4.4 times public funding

Receives £85m a year in Grant-in-aid from DCMS; earned annual trading income in 2002/03 of £27m

**3 main sites in London and Yorkshire. 2,300 staff**

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- Created by British Library Act 1972 - commenced 1973
- Merger of British Museum Library (1753), National Reference Library of Science and Invention (1855), National Central Library (1916), and National Lending Library for Science and Technology (1961)
- Subsequent incorporation of British National Bibliography in 1974, India Office Library and Records in 1982, and British Institute of Recorded Sound in 1983
- Flagship building at St Pancras - largest public building project in Great Britain in 20th century - opened in 1998

'The World's Knowledge'

Outcome Based Vision
… by aiding scientific advances
… by adding commercial value for businesses
… by contributing to UK "knowledge economy"
… through the pursuit of academic excellence
… through the stimulation of ideas
… by adding to personal and family history
… through increasing the nation's cultural wellbeing
… by giving information relevant to their interests
… by helping to find the next medical breakthrough
… by creating a link between the past, present and future

Innovation · Pride · Relevance

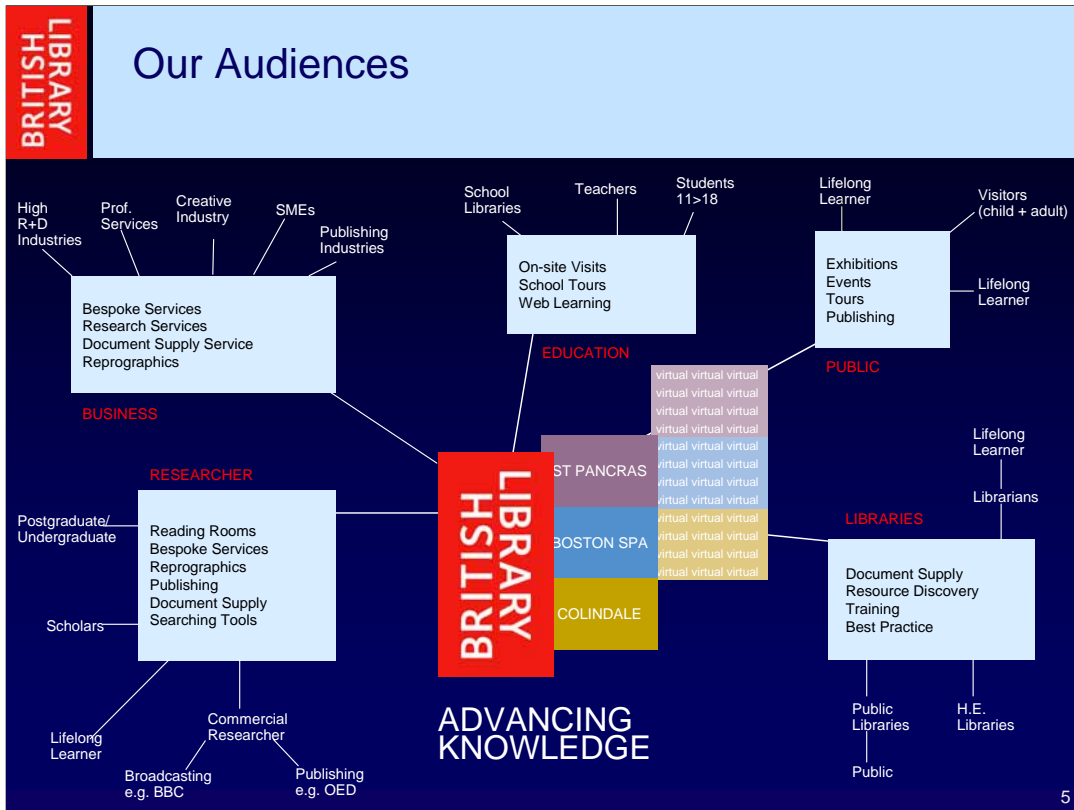To help people advance knowledge to enrich lives
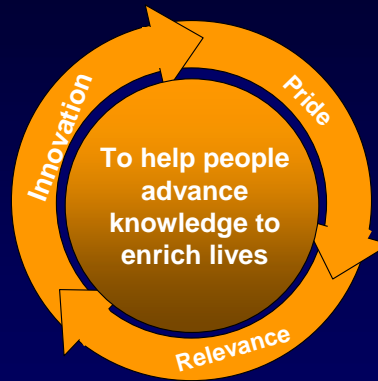
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We define the essence of the BL as 'the world's knowledge'. This reflects the comments from our customers and staff that the BL is is more than just a collection, and more than just 'british'. 'The world's knowledge' reflects that we have a wider role, and it is to help create knowledge and hence add value.

This shows that our aim is to do more than collect, and more than to make things accessible. It's to make a difference to people's lives we talk about the outcomes of the library and not just its content. We do this by being a key component in the research process whether the research comes from HE, FE, Schools, Business or the Life-Long learner.

This does cover most of what the BL does, from reading room services, curatorial scholarship through to document supply services to commercial companies.

And of course technology will increasing play a huge role in delivering on this strategy - I would now like to discuss some of the key developments that will help realise this goal.

Our Audiences

BRITISH LIBRARY

High R+D Industries — Prof. Services — Creative Industry — SMEs — Publishing Industries

Bespoke Services
Research Services
Document Supply Service
Reprographics

BUSINESS

RESEARCHER

Postgraduate/Undergraduate

Reading Rooms
Bespoke Services
Reprographics
Publishing
Document Supply
Searching Tools

Scholars

Lifelong Learner — Commercial Researcher — Broadcasting e.g. BBC — Publishing e.g. OED

School Libraries — Teachers — Students 11>18

On-site Visits
School Tours
Web Learning

EDUCATION

virtual virtual virtual (repeated)

ST PANCRAS

BOSTON SPA

COLINDALE

BRITISH LIBRARY
ADVANCING KNOWLEDGE

Lifelong Learner — Visitors (child + adult)

Exhibitions
Events
Tours
Publishing

Lifelong Learner

PUBLIC

Lifelong Learner — Librarians

LIBRARIES

Document Supply
Resource Discovery
Training
Best Practice

Public Libraries — H.E. Libraries

Public

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These are the five audiences we are focused on;

The researcher from HE & FE through to commercial researcher and life long learner.

Businesses from high tech through to SMEs

Education from School Libraries to Students and Teachers

The public as visitors to our exhibitions and events in St. Pancras

And from public libraries to HE libraries and librarians

All of these are the audiences we try and serve.

This is a huge agenda but technology will help us reach more people.

Collaborations/Partnerships Success Factors

- Strategic Fit – Shared Vision
- Cultural Fit – Can We Work Together?
- Agreement About Objectives
- Perceived Importance Of Project
- Duration Of Project
- Complexity Of Project
- Resource Availability

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Many consortia are based on tiered contributions so that smaller institutions pay less than larger institutions.

Because each institution is paying less money and needs less expertise risk is reduced. Especially important for new experimental areas.

We all need help in some of these areas,

Digital Library Collaborations

Current
- UK Digital Preservation Collation
  - Founder Member
- TEL
- Web Archiving UK
  - JISC, Wellcome Trust, National Archives, National Library of Scotland & National Library Of Wales
- International Internet Preservation Consortium
  - BNF, Library Of Congress, Internet Archive, National Archives & Library Of Canada, National Library Of Australia, National Library Of Italy, National Libraries Of Nordic Countries
- JISC Funded - Digital Curation Centre
- Persistent Identifiers
  - DOI Foundation, European National Libraries
- Resource Discovery
  - Union Catalogues

Potential
- Secure Legal Deposit Network
  - 6 Legal Deposit Libraries
- Global Digital Format Registry
  - Potential Partners (National Archives, DLF)
- Patch (Standards & Tools To Extend The OAIS Model For Emulation & Migration)
  - KB (Netherlands National Library & Other Partners – FP6 Bid)
- Digital Rights Management
  - Potential Partners (Publishers, JISC)
- Metadata
  - Publishers, Others ?
- Authentication
  - JISC ?
- Resource Discovery
  - Search Engine Vendors, Researchers
- Others ???

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DPC

Secure the preservation of digital materials in the UK. HE, Government, Publisher bodies & Others. Advocacy, funding, coalitions, standards.

Web Archiving UK

2 Year UK project to develop an operational capability to archive selected web sites with web site owners permission. Each partner will select web sites to archive knowledge and experience shared with complete group.

Digital Curation Centre

JISC Funded project to develop a centre of expertise on digital preservation led by a HE body. The centre will contain a research element as well as the development of tools and services to support digital preservation. BL is a strategic partner of a bid by Leeds University.

Persistent Identifiers

Part of a group of European libraries that have expressed an interest in exploring the use of DOI as an important identifier for digital materials.

STM - A Case Study

- Historically Important Community For BL
- Declining Volume In Document Supply Business
- Scientists Using Libraries Less
- Library Future Role ?
- Future Of Scholarly Communication ?
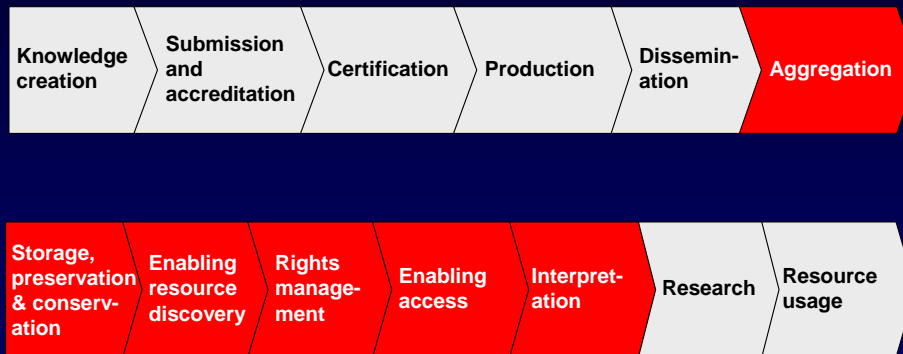- The Scientific Record ?

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Because each institution is paying less money and needs less expertise risk is reduced. Especially important for new experimental areas.

We all need help in some of these areas,

The BL's Role In The STM Information Chain

The British Library's role in STM

Knowledge creation → Submission and accreditation → Certification → Production → Dissemination → **Aggregation**

Storage, preservation & conservation → Enabling resource discovery → Rights management → Enabling access → Interpretation → Research → Resource usage

Note that this picture looks different for A&H (e.g. we are a publisher)

1. Knowledge creation – this is the researcher in his/her lab, generating data, drawing conclusions, and presenting these in some format such as a journal article

2. Submission and accreditation – e.g., the researcher submits her article to a publisher who note the date of submission and the author of the work

3. Certification – e.g., the peer review process associated with research journals

4. Production – publishers do this…could be electronic or print-based (or both)

5. Dissemination – publishers and/or online aggregators. Traditionally this has been print journal distribution. Now it could be web-based.

6. Aggregation – this is where the libraries kick in. BL collects vast amounts of STM information (books, journals, conference proceedings, theses etc). A key library function.

7. Storage, preservation, conservation – Another key library role. Particularly important for the BL where we are looking at very long-term preservation, not just at the next 20 years. Digital materials are making this area ever more complex and technically challenging.

8. Enabling resource discovery – Traditionally cataloguing, shelf-marking…ultimately perhaps automated metadata collection (**what** we do doesn't change – **how** we do it does!)

9. Rights management – We don't determine IP controls, but we must ensure that we act within the law

10. Interpretation – e.g. public exhibitions (recent Leonardo exhibition, Treasures Gallery), educational offerings, Research Services

11. Research/resource usage – the academic or business researcher seeking and using information as part of their work

STM - Major Trends
Paper to Digital

Migration from print to electronic journals
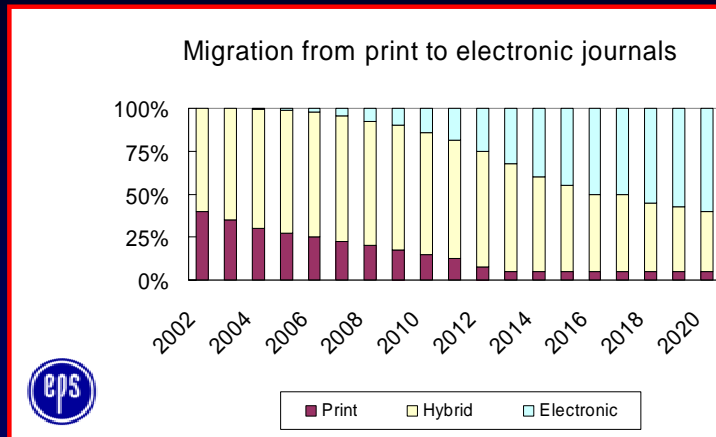
- By 2014, 95% of RoW Journals will be available in electronic form
- Projections for magazines and newspapers are somewhat more conservative
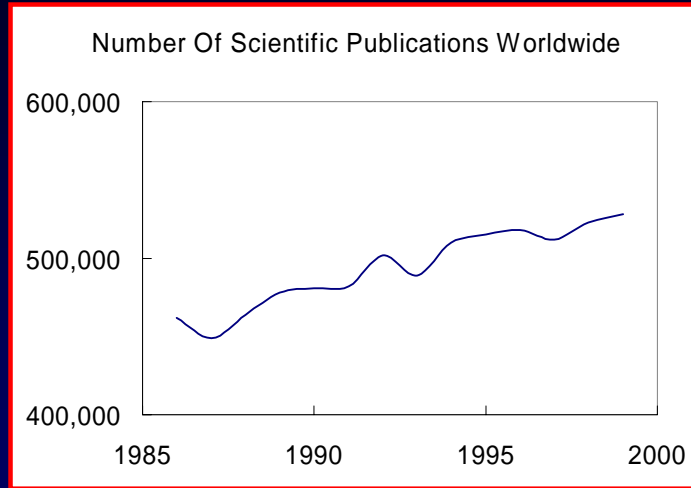
STM – Major Trends
Data Explosion

- UC Berkeley School of Information Management & Systems.
  - New Stored Information Grew 30%/Year Between 1999 and 2002.
  - 92% Of New Information Is Stored On Magnetic Media
  - Email Generates 400 Petabytes (10^15) Of New Information Each Year

World Computer Disk Storage 1990 – 1999
Michael Lesk
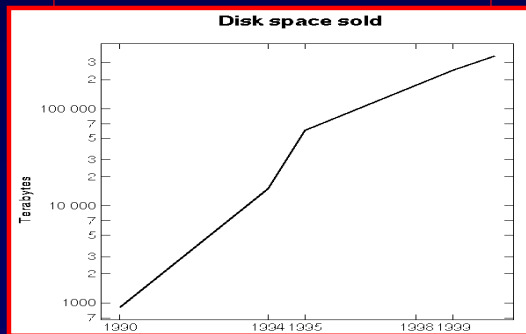
STM - Major Trends
Increasing Number Of Publications

Number Of Scientific Publications Worldwide

Science and Engineering Indicators 2002
National Science Foundation

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STM - Major Trends
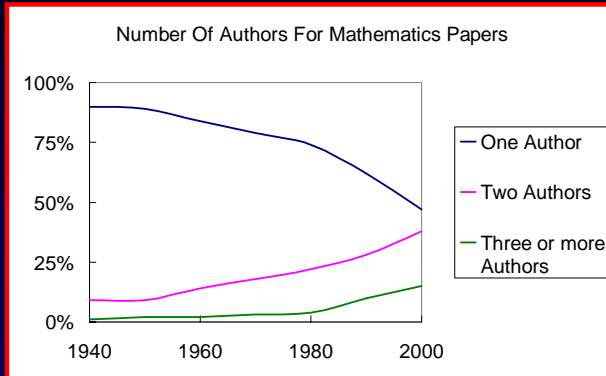## Increasing Use Of Online Search & Citation Linkage

- Crossref
  - Passes 10 Million DOIs in January 2004
  - 265 Publishers, 218 Libraries, 36 Vendors

Methods For Finding Scientific Articles

Legend:
- Citations Linkage
- Online Search
- Colleagues
- Browsing Journals
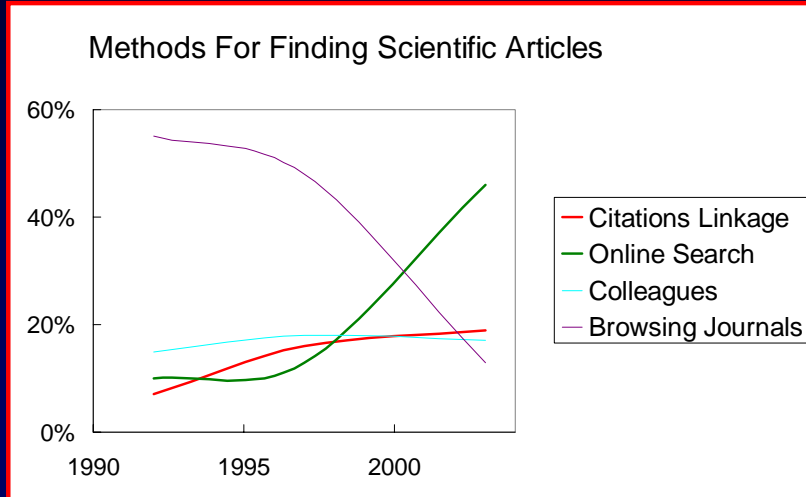
Various Sources

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STM - Major Trends
Joint Authorship

Number Of Authors For Mathematics Papers

The future of scientific communication – Andrew Odlzko

- Driven By Specialised Knowledge
- Better Communication Channels
- Researchers Have More Opportunities & Methods To Collaborate
- Only In Science ?

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Other Major Trends
Collaboration Tools

- Web Page, Web Site, Blog, Wiki, ...
- http://www.grantbow.com/groupware.html
  - 100+ Open Source Projects
    - Babylon, Bazaar, Chandler, D3E, Glasscode, Jake, TWiki, WikiTikiTavi
  - 35+ Commercial Products
    - eRoom, Groove, OpenAir, Placeware, Teamware
- Is Where 'The Scientific Record' Is Going?
- How Do We Capture?
- Publish or Sample? (Web Archiving?)

Other Major Trends
Security Issues

- Spam 50+% Of All Email
- Thousands Of Virus Attacks At Individual Sites Each Day
- Open Source Software
  - Used More Widely Than Ever But Can Be Used As A Carrier Of Viruses & Worms
- Holes In Major Operating Systems Exploited Rapidly

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STM - Other Issues

- Open Access Movement
- Intellectual Property Ownership & Management
- Digital Preservation

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STM – Any Solutions Will Require

- Knowledge & Support Of Discipline-Based Research Communities
- Technology To Create Selected Solutions
- Information (Text & Data) Management Skills & Knowledge
- Institutions To Preserve & Manage Research Outputs For The Long Term

- Collaboration With Like-Minded Organisations

Conclusions

- BL Has An Outcomes Based Vision
- Critical To Meeting The Vision Is **Collaboration**
- We Currently Have Several Collaborative Efforts In The Digital Library Area
- STM Is A Marketplace Where We Have Had A Significant Role To Play
- The STM Landscape Is Changing In Many Ways
- Some Potential Solutions Are Beginning To Emerge
- These Solutions Will Require **Collaboration** With A Range Of Partners