

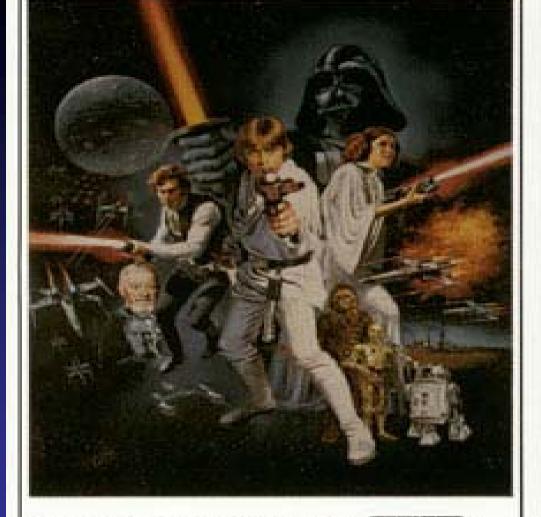
Digital Dreams and Nightmares: Creator to Consumer in the Twenty-First Century

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Director Scholarly Information Strategies,

ANU





PARTON DISCUSSION NAMES & LICOSOMORPHO

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HE AUSTRALIAN NATION



Star Wars or Turf Wars

- Who owns the global Empires publishing programs of mass destruction or mass liberation?
- Are Reed Elsevier and Kluwer/Springer the Real Madrid - Manchester United superpower publishers and Hartlepools United - Oxford United the small minnows of the OAI?
- Who DARES Wins?



Pieter Bolman Reed Elsevier 2002

- Elsevier 'commitment to make profits my children and your pension fund'
- US university pension funds and Reed
 Elsevier 'highly visible, despised, feared love to hate them'
- 'Is this because Dutch often wrong, but never in doubt'



Northern Hemisphere. Rumbles in the Publishing Jungle

- Australia and the tyranny of distance in the 19th and most of the 20th century in relation to information provision
- Now instantaneous but still isolated from 'whispers in the corridor' of Europe/USA
- Billions of dollars spent on acquiring information – how much do we spend on analysing the SC process?



Australian Research Study: International Comparators

- Australian DEST Research Practices Study July/August 2003
- Basis of user studies and focus/research interviews re: scholarly communication
- Collaboration extensive in research process
- Major gap between ownership process of creation and consumption



Australian Research Study:International Comparators 2

- Researchers moving into mode 2 disciplinary and collaborative activity BUT
- Still operating in conservative mode 1 frameworks in relation to scholarly communication
- Traditional publishing peer review paramount
- Who questions the underpinnings of the scholarly process in digital environment?



Major User Studies

- Canadian Studies, 1999, 2000 Archer and Siemens
- ALPSP Study, 'Authors and Electronic Publishing'
- Education for Change, RSLG Study
- Digital Library Federation/ Outsell
- Stanford E-Just Surveys, 2000
- King and Tenopir Studies



Dysfunctional SC System: Nightmare?

- Guedon's Jekyll and Hyde syndrome the distinction between the researcher as creator and as consumer – see ALPSP Study
- Great unawareness at individual researcher level of issues in relation to SC issues, eg personal copyright (see RoMEO Studies) and electronic publishing opportunities



Dysfunctional 2

- Great contrast between the zealots of open archives and the reality at the desktop
- Most academics unaware of open archive initiative potential – either uninterested or believe unaffected
- Need for both individual ownership of creator to consumer process and leadership from the top – scholarly advocacy programs essential
- No SPARC Australasia



Perceptions of Current Information Environment

Researchers and their issues:

- time poor
- information rich/ information overload
- knowing what's available and how do they know?
- integrated electronic desktop access increasingly the norm
- determining information quality and credibility



What do Academics Want

- Academics want to access electronically, preferably for free, often unaware that library pays – largely uninvolved in the outcomes of their publications in a cost sense
- Debateable that they expect to make money except for a limited number of text books (Bookseller, 9 May 2003) – universities not after getting copyright royalties



Stanford E-Just Study

- Visiting libraries is still common but mostly for material they can't get on-line
- Multi-journal search engines with full text links are the most common search starting point, eg PubMed, Medline, Ovid, Science Direct, Highwire
- Only 8% started from an on-line citation base, eg Web of Science and only 4% from general search engine (contrast students here)



Institute of Physics: Haynes Brussels, October 2002

- What do research scientists want: credit, rapid dissemination, widest possible distribution, retrievability, citability, permanence/ archives
- Authors want branded journals and peerreview
- How can these be achieved in an open archive environment?



Digital Dilemmas

- Need to revisit in a digital environment what users will want and how access
- Will the digital user be essentially promiscuous? (Nicholas)
- Will incentives change user access patterns? (Emerald Study)
- Digital data silos, crafting of scholars' portals to incorporate commercial subject approaches



What is a Publication in the Digital Era?

- Need to assess the nature of research communication – emails, personal websites, research communities of scholars, non-textual databases
- Need to make analogies with grid technologies and layers from access to organisation
- More inter-disciplinary collaboration issues of authentication across distributed networks



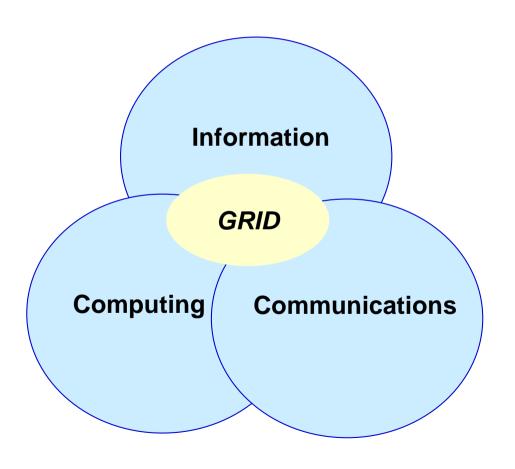
Semantic Web and Knowledge Access

- Semantic Web will transform access to information
- Use of universal resource identifiers
- Links with emerging web technologies and grid computing
- Underpinning of new methods of knowledge creation and access – new constructs eg
 Federated Repositories



eResearch Infrastructure

eResearch Infrastructure

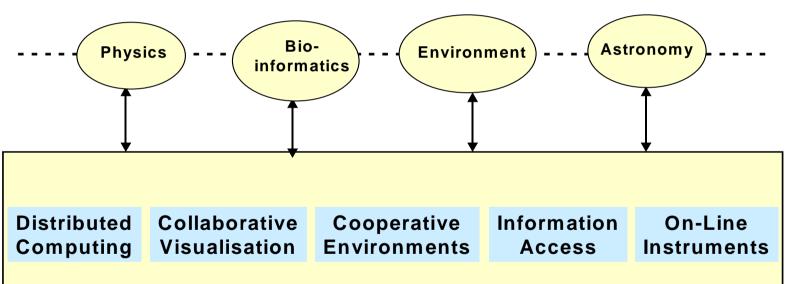




Grid Services

Grid Services for eResearch

User Communities



Web Services
Advanced Communications Services



Functional Architecture

- Distributed network of repositories
- Highly configurable institutional access management
- Metadata schemers for diverse research material
- Application profiles that support interoperability agreements and transparency for submission, maintenance and discovery



Functional Architectures 2

- Provision of central harvested metadata repositories and/or federated capabilities for distributed datasets
- Coordinated research information discovery services, capable of including advances in computer based ontologies and semantics

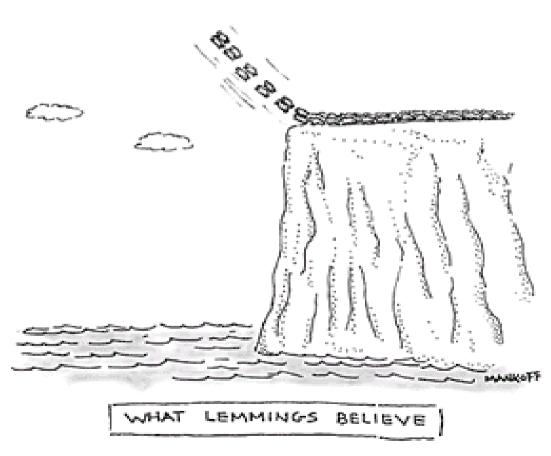


Institutional Repositories: Digital Futures?

- Institutional repositories range from textual to statistical to scientific databases
- Need for federated access both locally and nationally to harvest research
- In relation to textual material, key is ownership by the academic community of institutional repository potential
- See studies by Lynch and Day, 2003



Lemmings and Open Archive Enthusiasts?



Belinda Weaver, ePrints@UQ



McKiernan's Excitations ALA, June 2003



"APPROPRIATE EXCITATION"

"I believe that the collective behavior and information exchange pattern of any community depend on their culture, their shared values and their past and current practices. These things are very difficult to change, but given the *appropriate excitation* (emphasis added) they can change very fast."

<u>Imre Simon</u>

Re: Discipline Differences in Benefits/Feasibility of Open Access?", Posting to *September 1998 American Scientist Forum* electronic discussion list, November 24, 2002, 17:20, available at: http://www.ecs.soton.ac.uk/~harnad/Hypermail/Amsci/2399.html (accessed 7 June 2003).

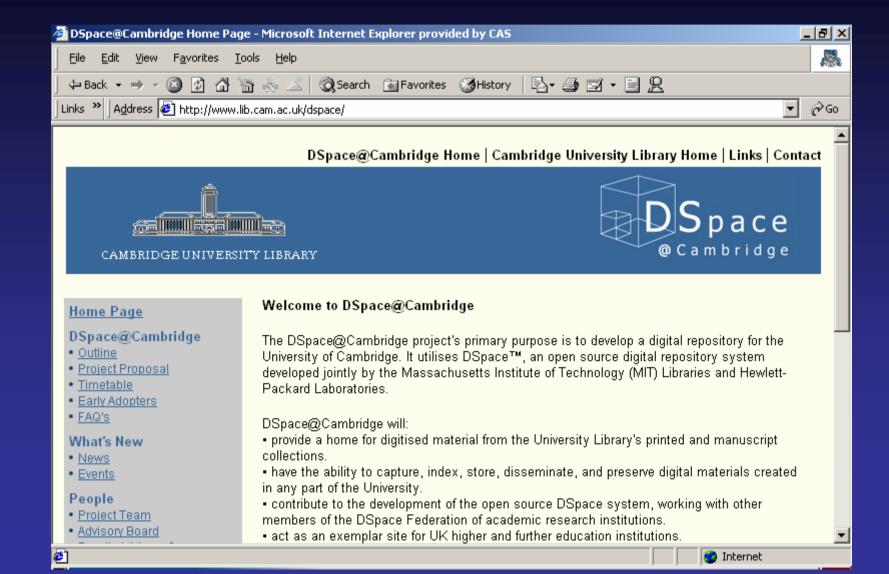


EXCITATIONS

ArXiv.org	CogPrints	RePEc
eScholarship Repository	Glasgow ePrints Service	Knowledge Bank (OSU)
DSpace™	E-Print Repository (ANU)	Scholarly Publishing Office (Michigan)
ELSSS	SPARC	The Stoa Consortium
BioMed Central	GNU EPrints Software	Public Library of Science
DARE	FAIR	SciELO

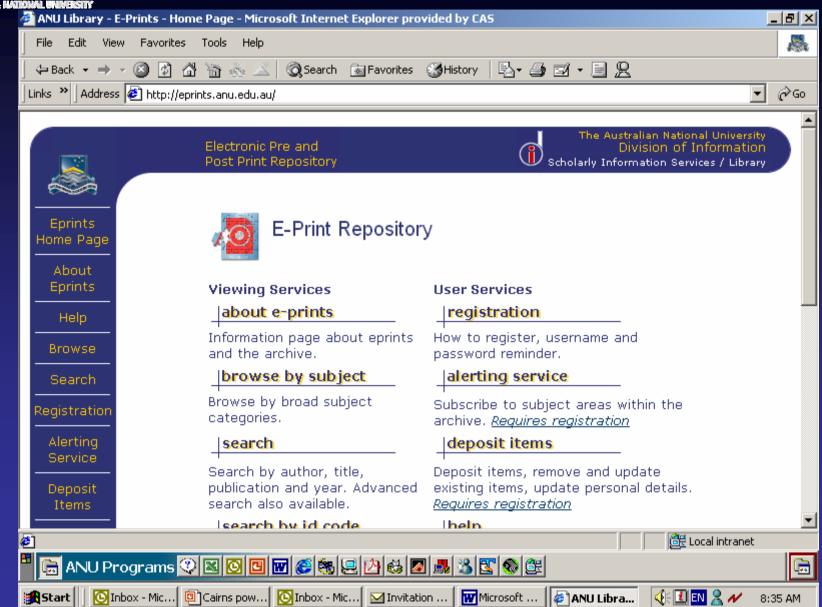


Dspace MIT – Cambridge U





ANU E-Prints





Rick Luce, National Academy of Science, May 2003

- Will the new models co-exist with the current publishing models or help the current system evolve into something better able to meet researchers needs and improved global access?
- Outcomes of digital weblogs analysis Emerald/ New metrics Los Alamos
- Author derived metrics v user/reader derived metrics



Need for new RAE models

- Sir Gareth Roberts RAE Exercise see international comparative studies on publications in RAEs – Flanders bibliometric but only based on ISI
- Laudatus ergo sum I am cited therefore I am (Veltrop after Descartes)
- Divulgatus ergo laudatus ergo sum I am published therefore I am cited (Veltrop)

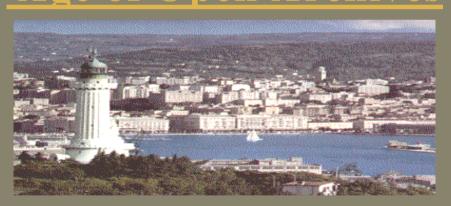


McKiernan, Peer Review,





Workshop on Peer Review in the Age of Open Archives



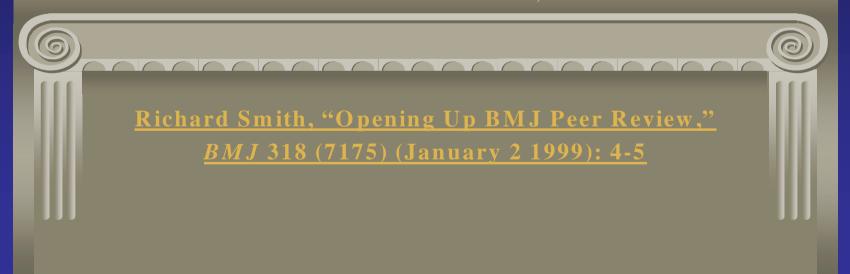
International School for Advanced Studies

Interdisciplinary Laboratory
Trieste, Italy
May 23-24, 2003



"Peer review is slow, expensive, profligate of academic time, highly subjective, prone to bias, easily abused, poor at detecting gross defects, and almost useless in detecting fraud."

Richard Smith Editor, BMJ





Quotes for University Presses

 "University Printing Presses exist ... for the purpose of producing books that no-one can read", Microcosmographia Academica 1908

 "An editor is a person ... whose business is to separate the wheat from the chaff, and see that the chaff is printed" (Elbert Hubbard)

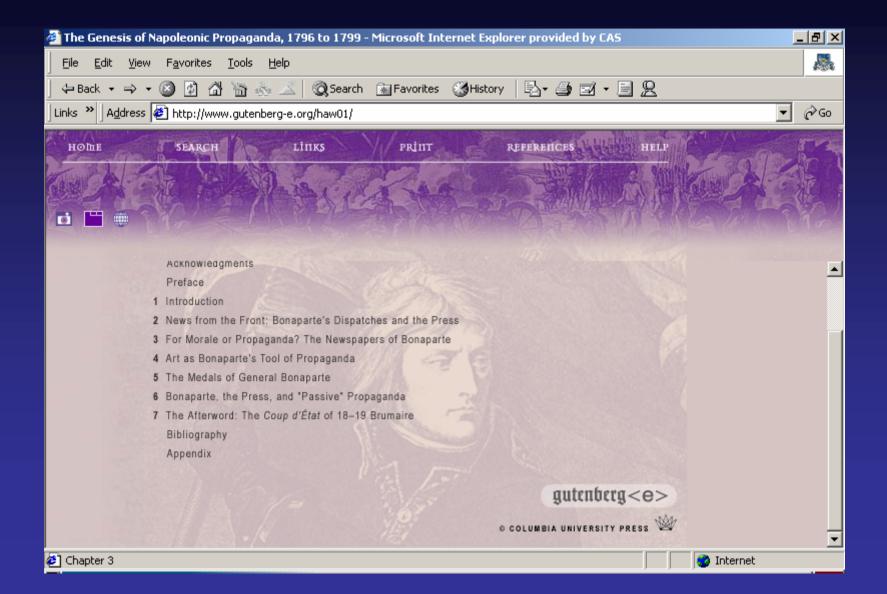


Publishing Pre-requisites

- Need to distribute content. Web better?
- Do free online books sell more hardcopies?
- Branding and peer review still important despite flaws
- Poor or nil reimbursement for peer reviewmisguided collegiality?
- Role and nature of electronic editors (Wittenberg)



Gutenberg-e Columbia UP





California eScholarship/ Tennant

- Sequential model of status of "publication"
- Some free to world, some free to UC
- Some electronic and pay
- Monitor downloads for print/ UC Press
- Alternative displays, eg large print
- Full text searchable/ bibliographic data
- Browsing by author, title, subject



Scholarship Scholar-led innovations in scholarly communication



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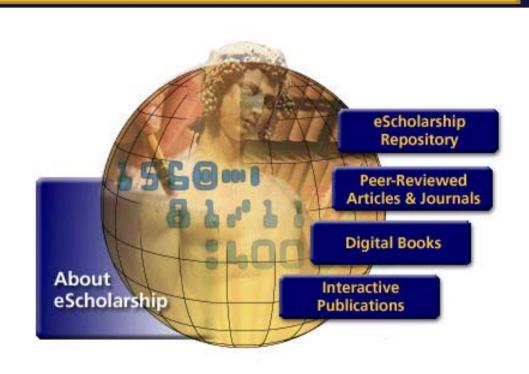
Site Index

The UCIAS **Digital Collection**



Peer-reviewed scholarship in International and Area Studies

Search this Web i



an initiative of the California Digital Library





Regier 2002

- "Universities may find that a more honest way to track the cost of publications would be to fund them up front, publish them electronically and publish them free"
- W G Regier, Director University of Illinois Press, 10 September 2002



Debate?

- Debate to date has largely focused on the socalled serials crisis
- Monographs have largely been forgotten in the debate?
- Harnad indicates that not as relevant as authors receive financial returns but ALPSP 1% financial return relevant/ research book



New Monograph Trends

- Books will essentially be deconstructed in the digital age
- Books and chapters indexed and abstracted and full text searchable
- OUP Scholarship Online model and California eScholarship
- Aggregated monograph subscription packages



New Monograph Trends 2

- At the same time, increasing demand for payfor-slice of monographs, as with serials
- OUP model 24x7 at the desktop preferable to multiplicity of e-book platforms and offerings
- Cairns Book Conference result of studies at California State and University of Queensland on e-books. Contrast Chinese 'face' sales



New Monograph Trends 3

- Monograph material born digital contrast move from print to electronic for serials
- Implications for textual continuity will the medium impact on the creation of the scholarly message?
- Role and future of general public and independent scholars – walk in rights



Australian E-Press Philosophies

- At ANU, like elsewhere, evolution out of E-Prints and lack of research outlets particularly for Australasian material
- See Hix LSE Political Science rankings issues
- New models –research output of a university, particularly for non-science, seen as public good and funded like library
- Utilise ICT infrastructure already existing



Australian E-Press Models 2003

- ANU E-Prints: 30,000 PDF downloads from 1,000 documents in first quarter of 2003, over ½ from USA
- ANU E-Press founded January 2003 emphasis on monographs and output of ANU only. Funding a mixture of new money and existing infrastructure
- Monash University -Jan 2003 emphasis on serials
- Melbourne University Press new electronic arm
- Sydney University E-Press use of C-2-C standardisation of local websites and E-Press



Common Ground Publishing Environment

More democratic

... minimising financial and technical barriers to access to 'real' publishing.

More diverse

... a distributed publishing platform which grants voice to small and diverse communities of practice.

Higher quality

... returns publishing decisions to communities who have credibility because they understand content, and facilitates rigorous proposal development, peer refereeing, contract negotiation and editorial and approvals processes.



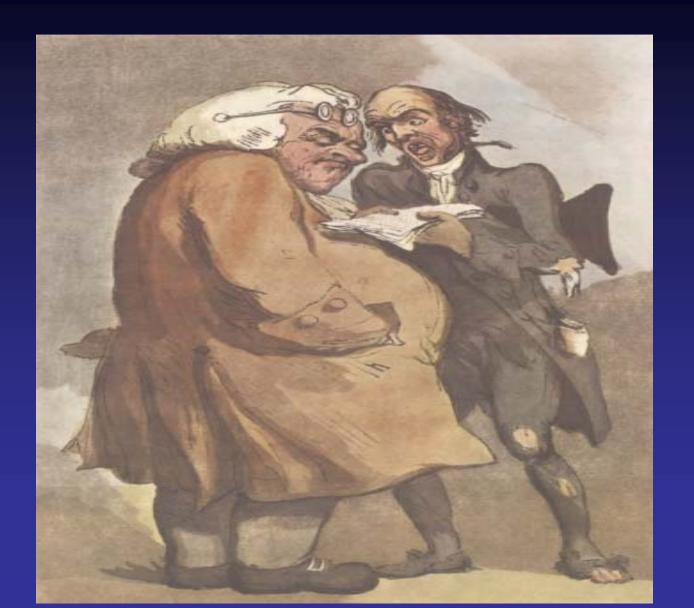
THE AUSTRALIA HATCON L BROWN COMMON Ground Markup Langauge (CGML

Manages Interoperability Across Standard





The Book Will Not Die





The Book Will Not Die

- Nearly all user studies indicate demand to print out – even more essential with monographs
- All text to be formatted electronically, eg XML with PDF options, but printing to be done either remotely or through local PODs/offset printing
- No great take-up at present of E-Book handheld readers: romancing the technology?



Global Digital Distribution

- New economic models of commercial and open archive digital distribution?
- Book Surge quotes: nearly 30 of every 100 books a publisher prints will go unsold
- 7 out of every 10 books published unprofitable
- Dutch central warehouse contains 45 million books – 18 million sell 0 or 1 book per year



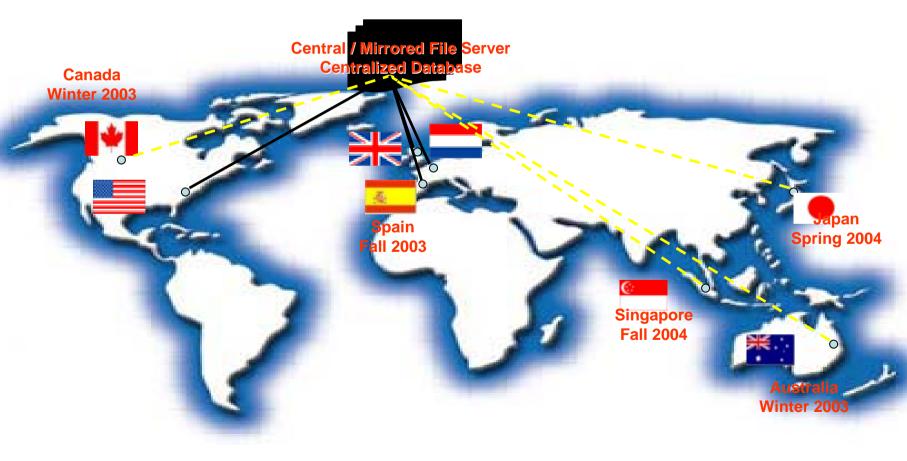
Book Surge Model

- Publishers globally upload PDF files and metadata to central/mirror server
- PDF files inspected, formatted and put into multiple print files to accommodate multinational paper formats and print loads
- Print files are uploaded back into database
- Timeline from publisher file to print ready status 10 to 14 days

BookSurge - Planned Growth for 2003 / 2004

LOBAL FACILITIES...GLOBAL FULFILLMENT ON THE CUSTOMER'S DOORSTEP e plan to open a facility in Spain, Australia and Canada by the end of 2003, to be followed facilities in Japan and Singapore to serve the growing Asian market. When entering these untries we seek strategic relationships to offer our publishers the most viable solution in the siness.



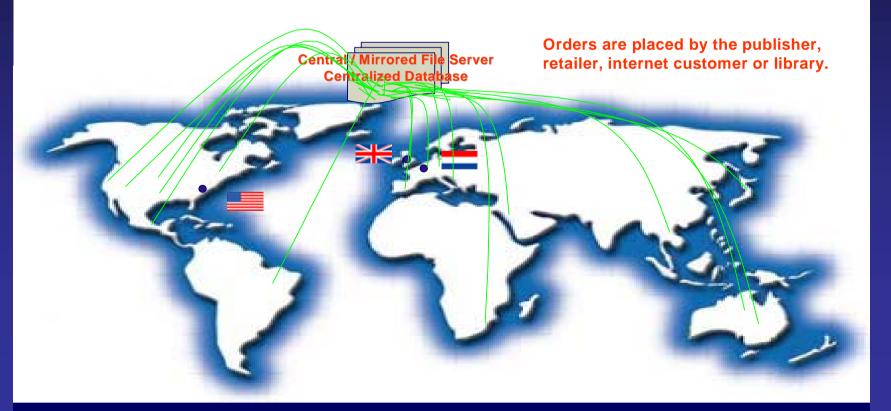




Global, Inventory-Free Book Distribution

PLACING ORDERS and PRINTING BOOKS

Books are ordered by customers and the publisher. All orders are placed through a centralized database and the order is routed to the closest facility. Library and bookstore discounts are chosen by the publisher and are automatically applied to the sale. For titles sold through our channels publishers are paid net revenue, regardless of the country the book is being shipped. Publishers also order books at wholesale prices for drop shipment. Orders are sent to the closest facility to the customer and printed at wholesale prices. All order are shipped in 48 hours or the books are free.





Stanford Robotic Scanning

- Introduction of robotic scanning device by Stanford University - the Digitising Line, May 2003
- Manufactured by 4DigitalBooks, Switzerland which produces high quality digital images at throughput of 1100 pages per hour
- Potential for ILL and digital file transfer with copyright clearance



Oliver Freeman Publishing Scenarios, Cairns 2003

- Survey of leading book publishers:
- Globalised ownership of public assets
- Impact of Print on Demand
- Incursion of e-Book publishers
- Digital platforms a means or an end?
- New business models for value creation
- Qualitative changes by digital technology



Freeman 2

- Growth of free information replacing paid
- Attractiveness of non-book 'killer apps'
- Responses to information overload
- Need for information in real time not batched
- Alignment of demand expectations with economic realities of the supply chain
- Commodisation of knowledge



Future for Libraries

- Librarians "morph" into new roles add value, drive taxonomy development, develop information architectures, and scholars' portal implementation, knowledge management organisation
- Catalyst for scholarly communication change but how do library mice aspire practices of academic rats?

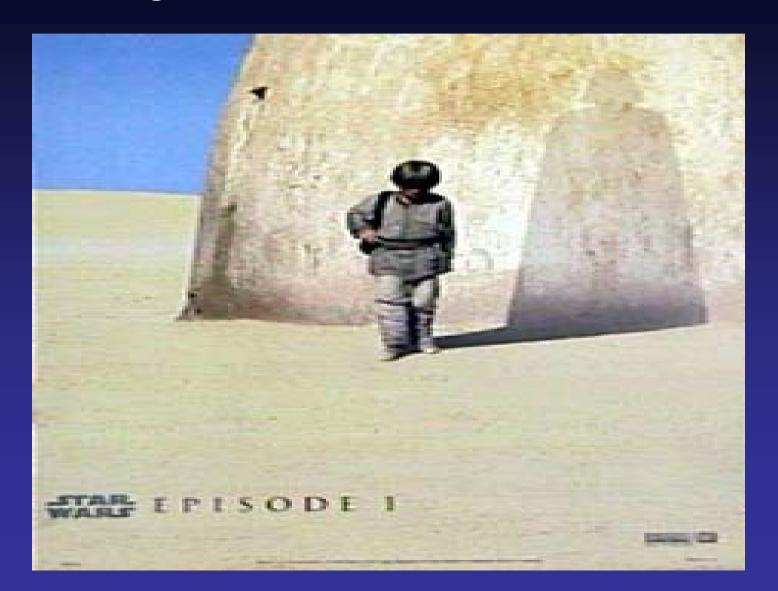


Conclusion

- New models of scholarly communication and publication needed
- Publication costs at front end not back end?
- Scholars retain distribution rights and provide to university infrastructure services
- Scholars need to own process but massive advocacy program required
- Fundamental issues for knowledge creation and distribution in 21st century

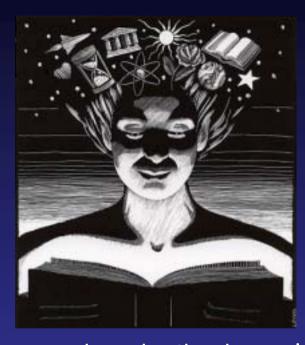


Bright Futures or Dark Visions?





Thank You



"Let us be <u>more</u> imaginative in exploring the remarkable possibilities of this brave new medium."

With Apologies to Stevan Harnad