



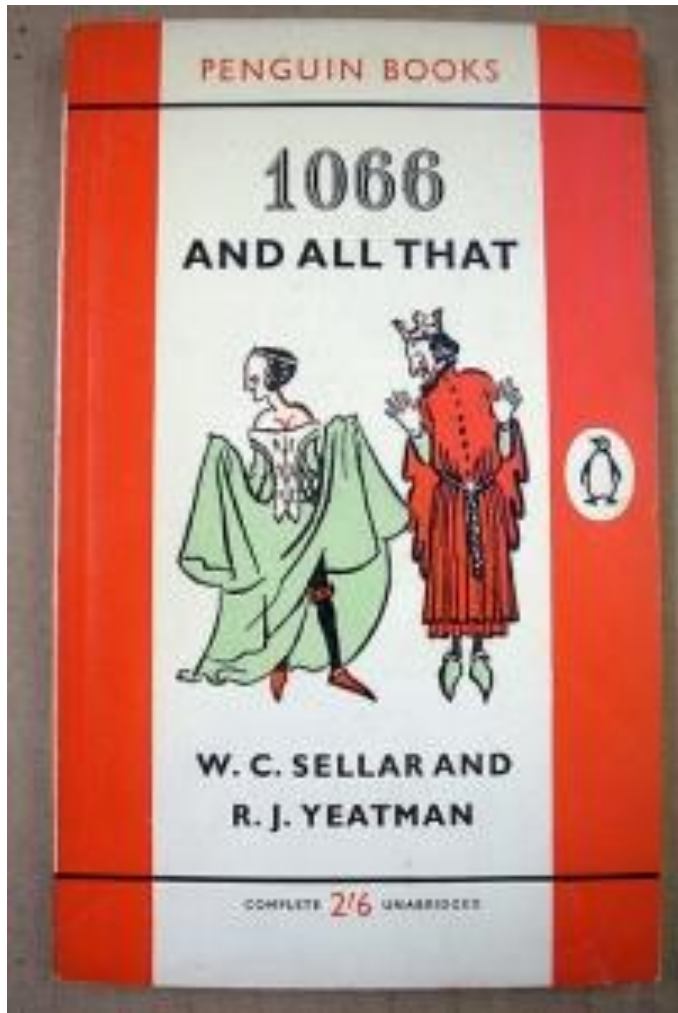
INTERNATIONAL ASSOCIATION OF SCIENTIFIC, TECHNICAL & MEDICAL PUBLISHERS

Publishing Prospects 2010-2020: Digital Decade or Digital Decimation?

Michael A Mabe

*Chief Executive Officer, International
Association of STM Publishers*

The Last Decade



The English Civil War

The utterly memorable
Struggle between

– the Cavaliers
(Wrong but Wromantic)

and

– the Roundheads
(Right but Repulsive)

New World Disorder?

- Clash between technology-*geist* and sociology-*geist*
 - Anarchic ultra libertarian ethos of web vs social structures with hierarchy and oligarchy
 - Counter-cultural web vs rules of economics
- Digital decimation
 - The culture of “free”
 - The levelling of information space
 - Everyone’s a publisher; everyone’s a gatekeeper
 - Napsterisation of music industry
 - Blogisation of newspapers
 - Amazonisation of bookselling
 - Google-isation of digital distribution
- What happens to research publishing?

Approach to Futurology: PEST

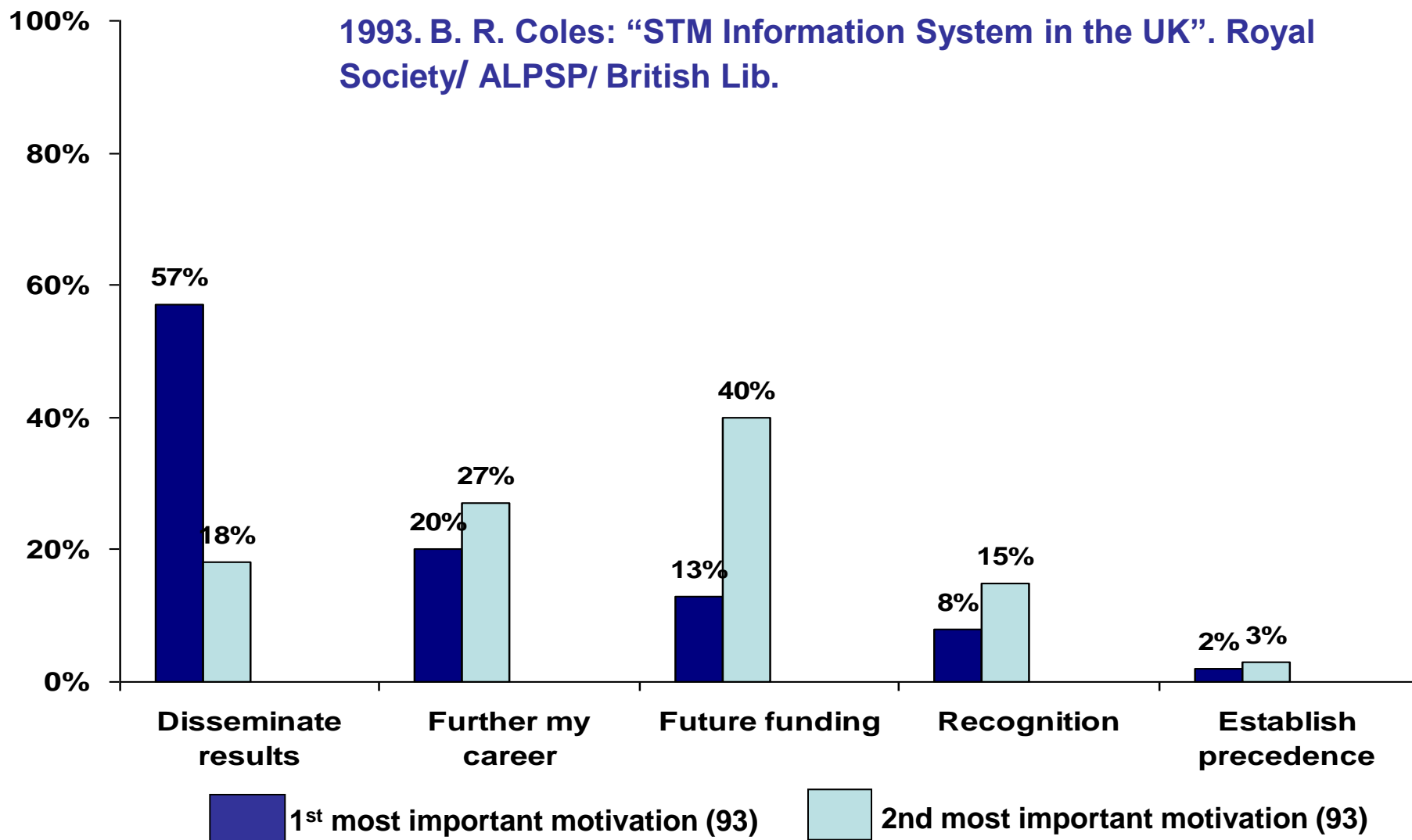
- Politics
 - Public priorities and transparency
 - University/research funding and policy
- Economics
 - Rebalancing national budgets
 - Expenditure and mechanisms in market
- Sociology
 - Attitudes deriving from technology shift [transferring into the “politics” domain too]
 - Behavioural paradigms in research
- Technology
 - New applications and hardware

Sociology dominates Technology: Past & Now

- Culture and utility trump technology
 - RIN study on scholarly behaviour 2009
 - Berkeley Study on scholarly behaviour 2010
- Journal paradigm serves researcher needs
 - Registration, Certification, Dissemination, Archive, Navigation
 - Via brand identity supported by publishers
 - Challengers don't deliver all functions in one act (yet)
- Areas of paradigm failure
 - Mathematics, theoretical & HE physics, economics and computer science

Motivations for Publishing

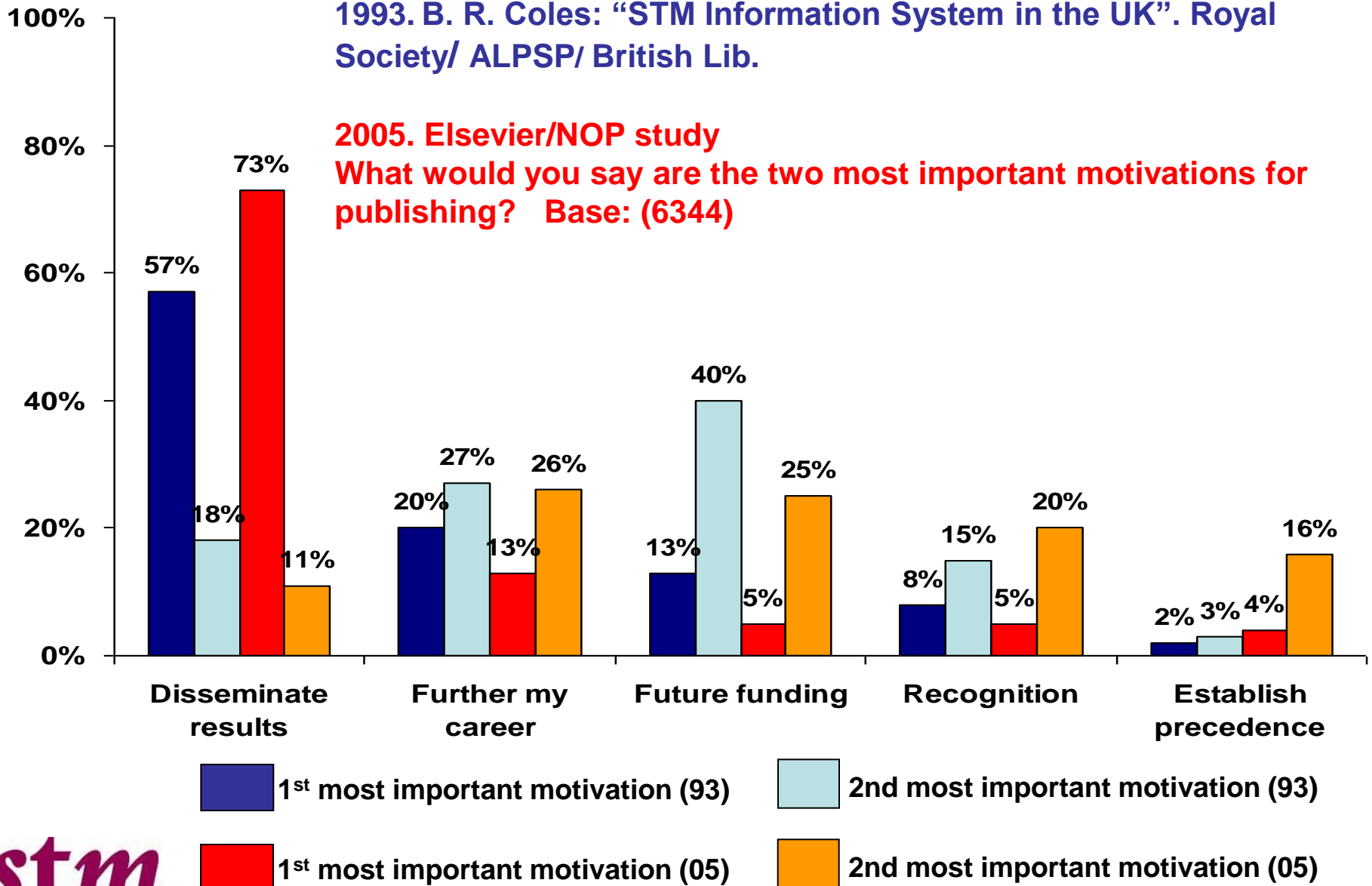
1993. B. R. Coles: "STM Information System in the UK". Royal Society/ ALPSP/ British Lib.



Motivations for Publishing

1993. B. R. Coles: "STM Information System in the UK". Royal Society/ ALPSP/ British Lib.

2005. Elsevier/NOP study
 What would you say are the two most important motivations for publishing? Base: (6344)



Publishing functions and vehicles

	Global focus	Community based/run	Registration	Certification	Dissemination	Archive
Web pages	?	perhaps	0	0	(X)	?
Institutional Repositories	—	—	0	0	(X)	X
Subject Repositories	?	?	0	0	(X)	X
Journal	X	X	X	X	X	X

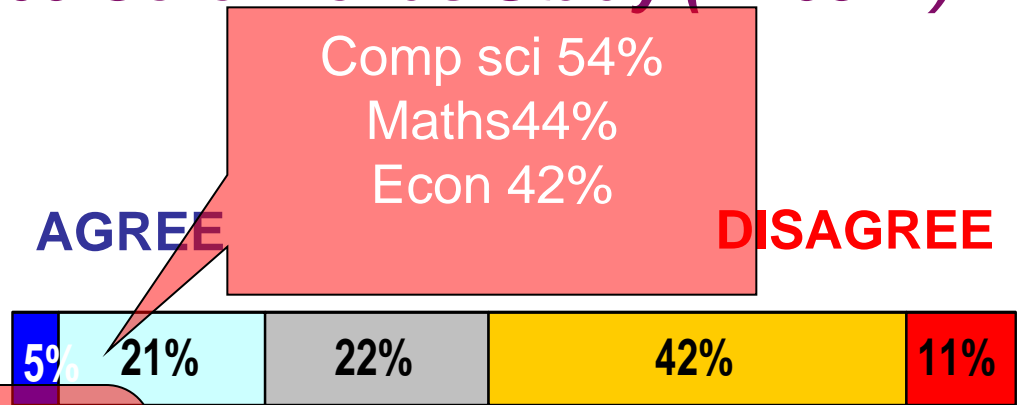
0 = done by document NOT vehicle

X = done by vehicle

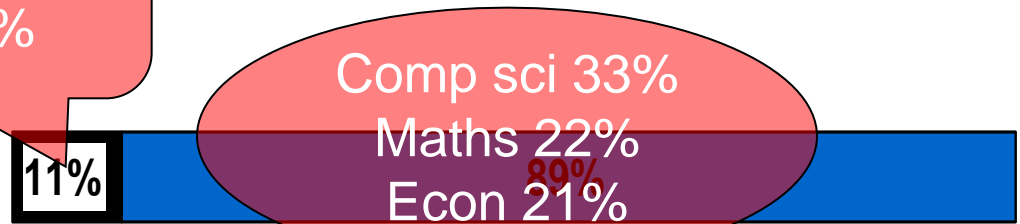
Decoupling from the Journal

Elsevier/NOP 2005 Core Trends Study (N=6344)

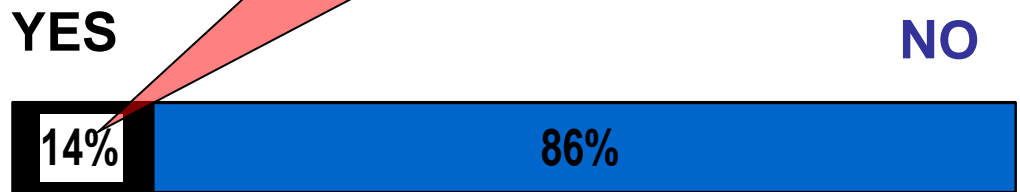
I always search authors websites for the full article



I place an early version on my website



I place a final version on my website



Sociology dominates Technology: Past & Now

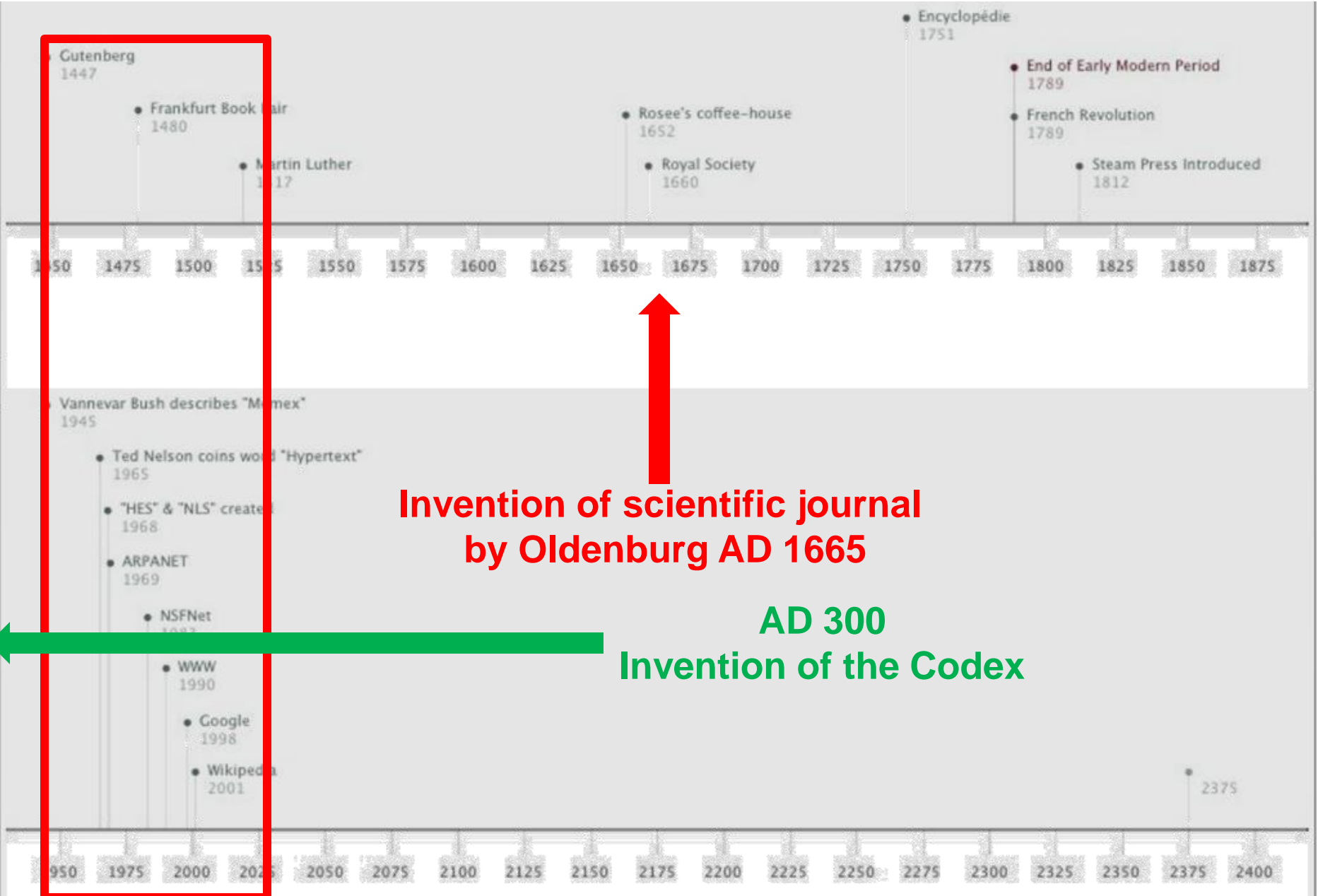
- Expected age effects are not found; young scholars are more conservative than older peers
 - Elsevier Core Trends study 2005
 - Tenopir on Astronomers & Engineers 2003-7
 - RIN study on scholarly behaviour 2009
 - Berkeley Study on scholarly behaviour 2010

“When I was a child, I spake as a child...:
but when I became a man, I put away
childish things.”

— *Corinthians 13:11*

Sociology dominates Technology: Past & Now

- No evidence journals are in age of digital incunabulae (*pace* Geoffrey Bilder)
 - Linearity of scholarly argument
 - Absence of real web 2.0 take-up
 - Berkeley Study 2010
 - Information role and niche
- No killer applications (yet)
 - But note iPad and eINK for eBOOKS...
 - ... and paperless future more assured than ever



**Invention of scientific journal
by Oldenburg AD 1665**

**AD 300
Invention of the Codex**

stm "Digital incunabulae"

Scholarly Communication & Information Ecology

- Communication Dimensionality
 - Mode
 - 1:1, 1:many, many:many
 - Directionality
 - unidirectional, interactive
 - Delivery regime
 - oral, written
 - Temporality
 - Live or recorded
 - Register:
 - private, public, informal, formal
 - Enhancement:
 - local, at a distance

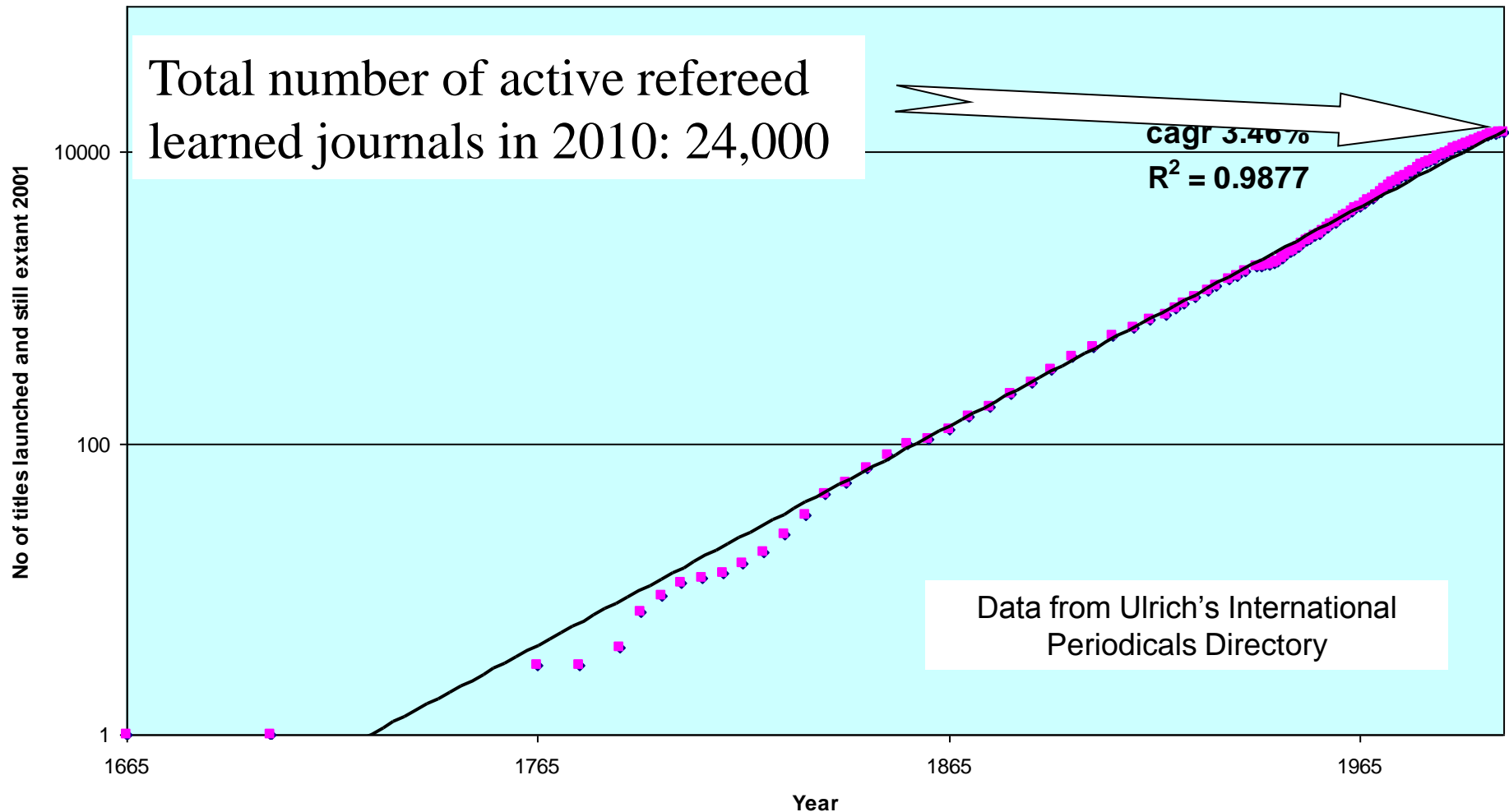
Delivery regime	Mode	Paper		Digital	
		World	Directionality	World	Directionality
Oral	One-to-one				
	One-to-many				
Written	One-to-one				
	One-to-many				
	Many-to-many				

Economics: Past & Now

- Journal growth
 - Depends on researcher growth
 - Independent of most other factors
- Variety of models
 - (Electronic) subscription per title, per collection
 - Membership per institution (OA)
 - Pay to publish per title (OA)
 - Rentals? (DeepDyve)
- Trend towards use of research funds

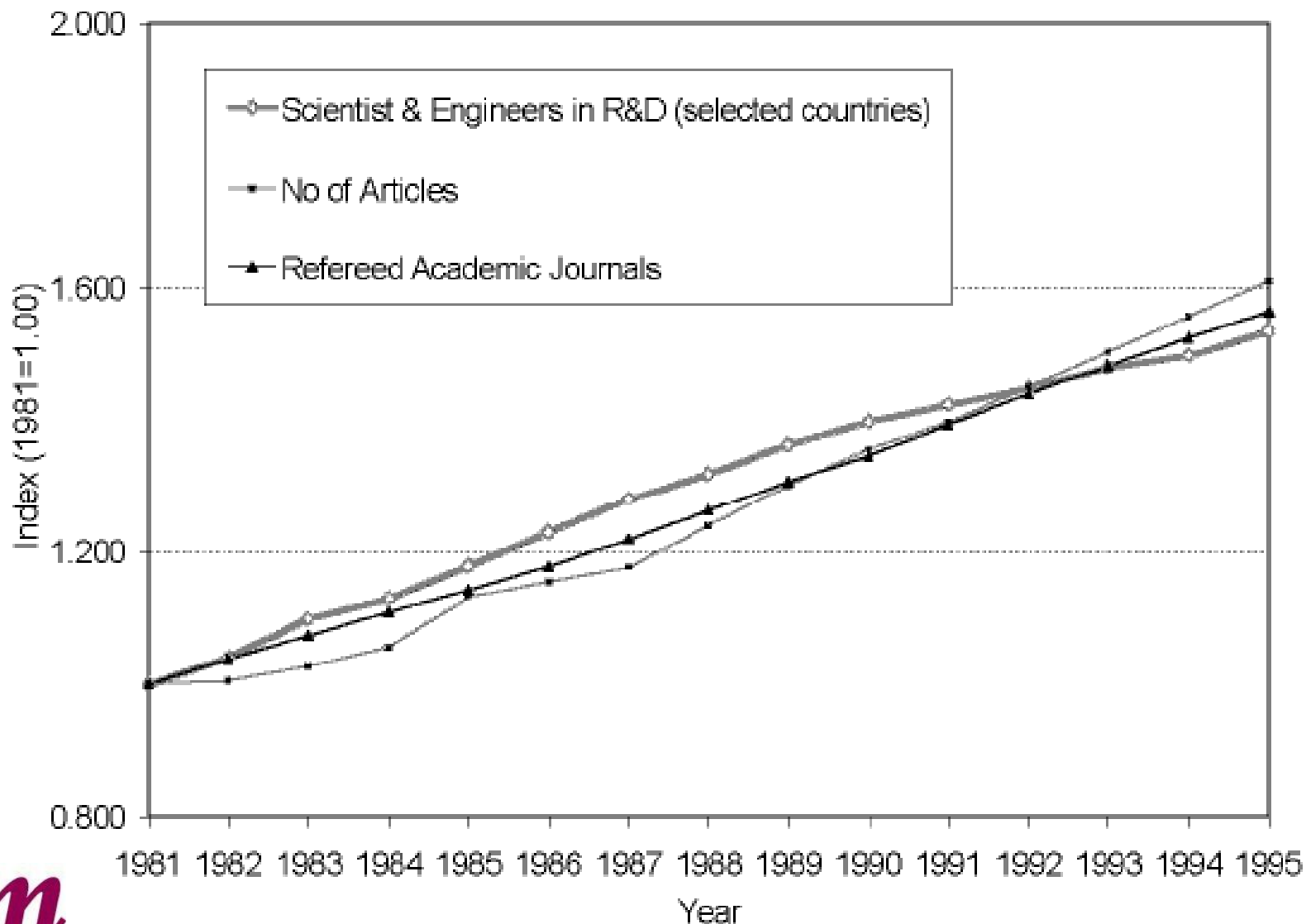
Journal Growth 1665-2010

[See: M A Mabe The number and growth of journals *Serials* 16(2).191-7, 2003]



Researchers & Journals

Source: Mabe & Amin *Scientometrics* 51(1).147-62, 2001



Business Model Options

- Supply or demand-side user payment
 1. Authors pay
 2. Authors' institutions pay
 3. Authors' granting bodies pay
 4. Readers pay
 5. Readers' agents (library) pay
 6. National authorities pay

The diagram uses red curly braces to group items. The first three items (1-3) are grouped by a brace pointing to a box labeled '2% of papers'. The last three items (4-6) are grouped by a brace pointing to a box labeled '98% of papers'.

Payment Source	Percentage of Papers
1. Authors pay	2% of papers
2. Authors' institutions pay	
3. Authors' granting bodies pay	
4. Readers pay	98% of papers
5. Readers' agents (library) pay	
6. National authorities pay	
- Third party tolls and tariffs
 - Advertising
 - Telecommunication access charges

A red curly brace groups the sub-items under 'Third party tolls and tariffs', pointing to a box labeled '~5% of papers'.

Category	Percentage of Papers
Third party tolls and tariffs	~5% of papers
- Sponsorship
 - Charities, foundations, companies, government

A red curly brace groups the sub-item under 'Sponsorship', pointing to a box labeled '?3% of papers'.

Category	Percentage of Papers
Sponsorship	?3% of papers
- Rental or timeshare: DeepDyve

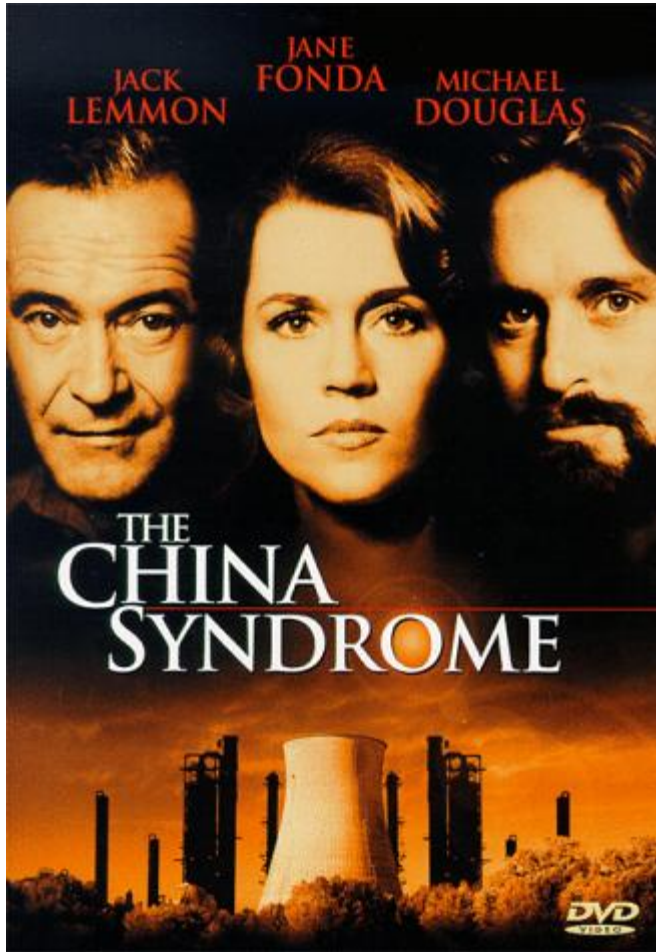
Politics: Past & Now

- Moral simplicities vs pragmatic complexity
 - Public funding = public access
 - e = free
 - Yours = mine
 - Intellectual property = theft
- Action not analysis
 - Unfunded mandates proliferating
- Evidence-based initiatives
 - US Scholarly Publishing Roundtable
 - EU PEER project

PEST for Research Publishing: Past and Now Summary

- Sociology dominant foreground element
 - Paradigms are strong and reinforced by scholarly tradition and practice
- Economics always in the near foreground
 - University funding
 - Government cuts and value for money
- Politics
 - The culture of “free”
 - Public funding = public access
- Technology
 - No “killer applications” yet
 - But major effects on attitudes and general market behaviour

The China Syndrome



- Chinese authors produce about 5% of papers (but growing)
- Currently very under-represented
- Full participation would be huge perturbation of essentially Western post-Renaissance paradigm
- New journal models?

PEST for Research Publishing: Future

- Sociology and Technology
 - Culture will still win over technology
 - Scholarly publishing paradigms strong but under tremendous pressure from internet attitudes and economic requirements
 - Technology aids business model fragmentation and further eInk and mobile-tablet convergence profoundly affect (paper) books market

PEST for Research Publishing: Future

- Politics and Economics
 - Collision of internet derived attitudes, populist and “value for money” economics
 - Support for openness and public value and intervention in the market
 - Mixed model environment
 - Open access (gold), national (federal?) licensing, e subscriptions, pay-per-view, DD, rental
 - Greater involvement of research funds
 - Who will collect author side payments?

Expect the unexpected...

"There will never be a mass market for motor cars — about 1,000 in Europe — because that is the limit on the number of chauffeurs available!" — Gottlieb Daimler, inventor of the gasoline-powered automobile, 1889



Questions?

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