



# Breaking down the boundaries: Open Access to research results

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## **“The Role Of The Scientific Journal:**

First, to place before the general public the grand results of Scientific work and Scientific discovery; and to urge the claims of Science to a more general recognition in Education and daily life.

Secondly, to aid scientific men themselves, by giving early information of all advances made in any branch of natural knowledge throughout the world, and by affording them an opportunity of discussing the various scientific questions that arise from time to time.”

*Nature*, 4 November 1869

“At a time when the journal has become the primary vehicle for communicating research results .... libraries are finding it difficult to maintain, let alone expand, their journal collections ....” “.... It is becoming increasingly clear that the current scientific communication process is not working in the best interests of the scientific community, nor in the best interests of society as a whole.”

*Stephen Pinfield, 2005*

*Deputy Chief Information Officer and Director of Teaching & Learning Resources and Information Resources, University of Nottingham*

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# What has happened in the last 130 years?

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- The number of scientific research journals has grown, and grown, and grown...
- Journal prices have risen - much faster than inflation. Since 1986:
  - The UK retail price index has risen 70%
  - Journal prices have risen 291%

## One result ...

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The 'Men of Science' do not have access to all the scientific literature they need to enable science to progress as efficiently and effectively as possible

# “The Role Of The Scientific Journal:

First, to place **before the general public** the grand results of Scientific work and Scientific discovery; and to urge the claims of Science to a more general recognition in Education and daily life.

“American taxpayers are entitled to open access on the Internet to the peer-reviewed scientific articles on research funded by the U.S. Government ... enhanced access to and expanded sharing of information will lead to usage by millions of scientists, professionals, and individuals, and will deliver an accelerated return on the taxpayers' investment.”

*Alliance for Taxpayer Access*

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“Speak to people in the medical profession and they will say the last thing they want is people who have illnesses reading this information, marching into surgeries and asking things.”

*John Jarvis, Managing Director, Wiley Europe (one of the world's largest science publishing houses)*

*Oral evidence to the House of Commons enquiry, 1 March 2004*

“Just funding the research is a job only part done. A fundamental part of [our] mission is to ensure the widest possible dissemination and unrestricted access to that research.”

Robert Terry

Senior Policy Advisor, Wellcome Trust

# What Open Access is about

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- Freely available
- Publicly available
- Permanently available

# The Internet has enabled Open Access to science

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- Not constrained by the limitations of print on paper
- Available to any individual with Internet access, worldwide
- With proper arrangements in place, availability is permanent

# What Open Access is not about

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- NOT vanity publishing or self-publishing
- NOT about non-peer-reviewed literature
- NOT about publications that scientists expect to be paid for (e.g. books)

# Who benefits from Open Access?

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- Scientists – as authors
- Scientists – as readers
- Scientists – as teachers
- Universities
- Research funders
- Taxpayers and society at large
- Publishers

# Two ways to provide Open Access

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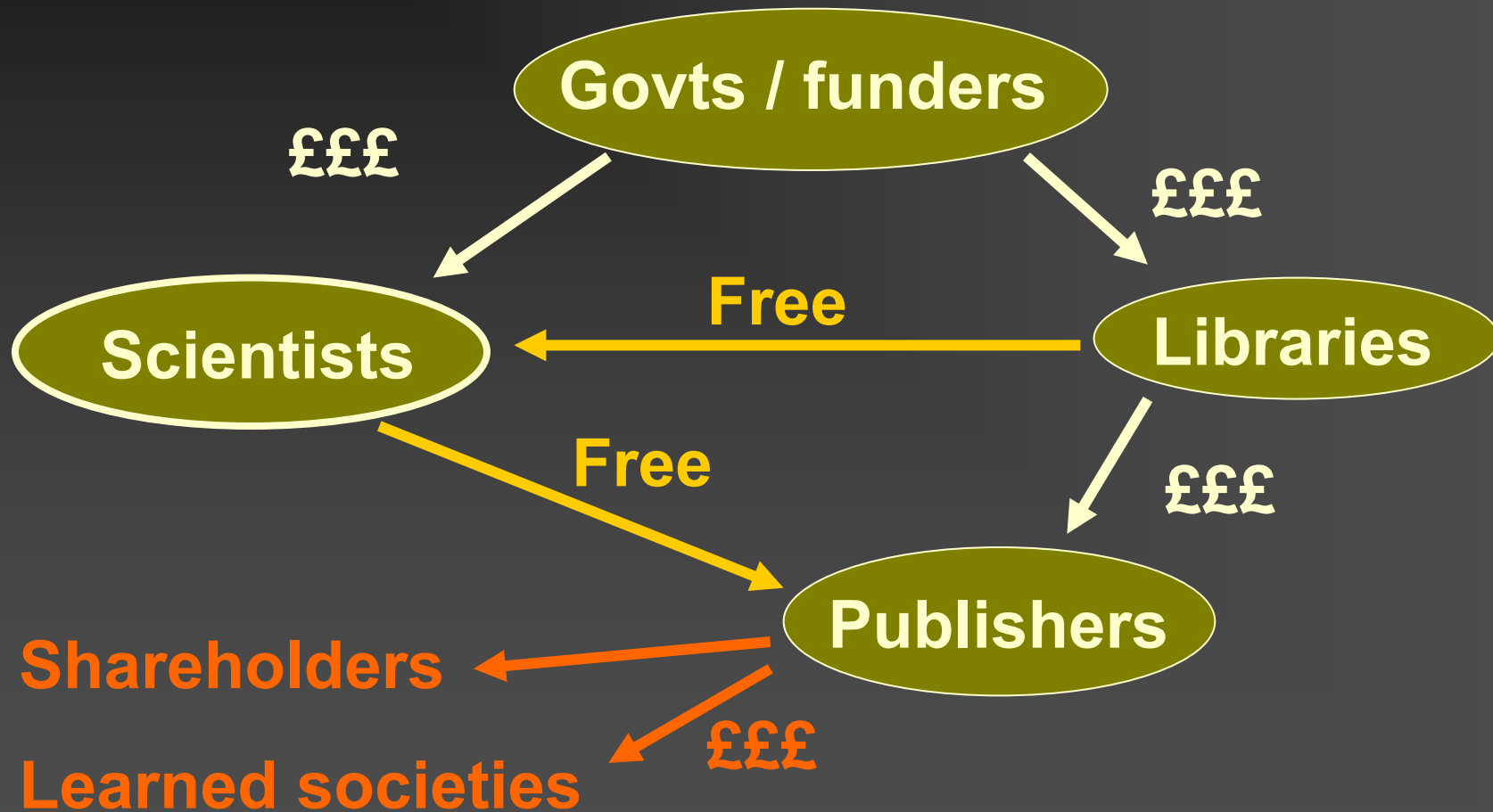
- Publish in an Open Access journal
- Deposit copies of published articles in an Open Access repository ('self-archiving')

# Publishers

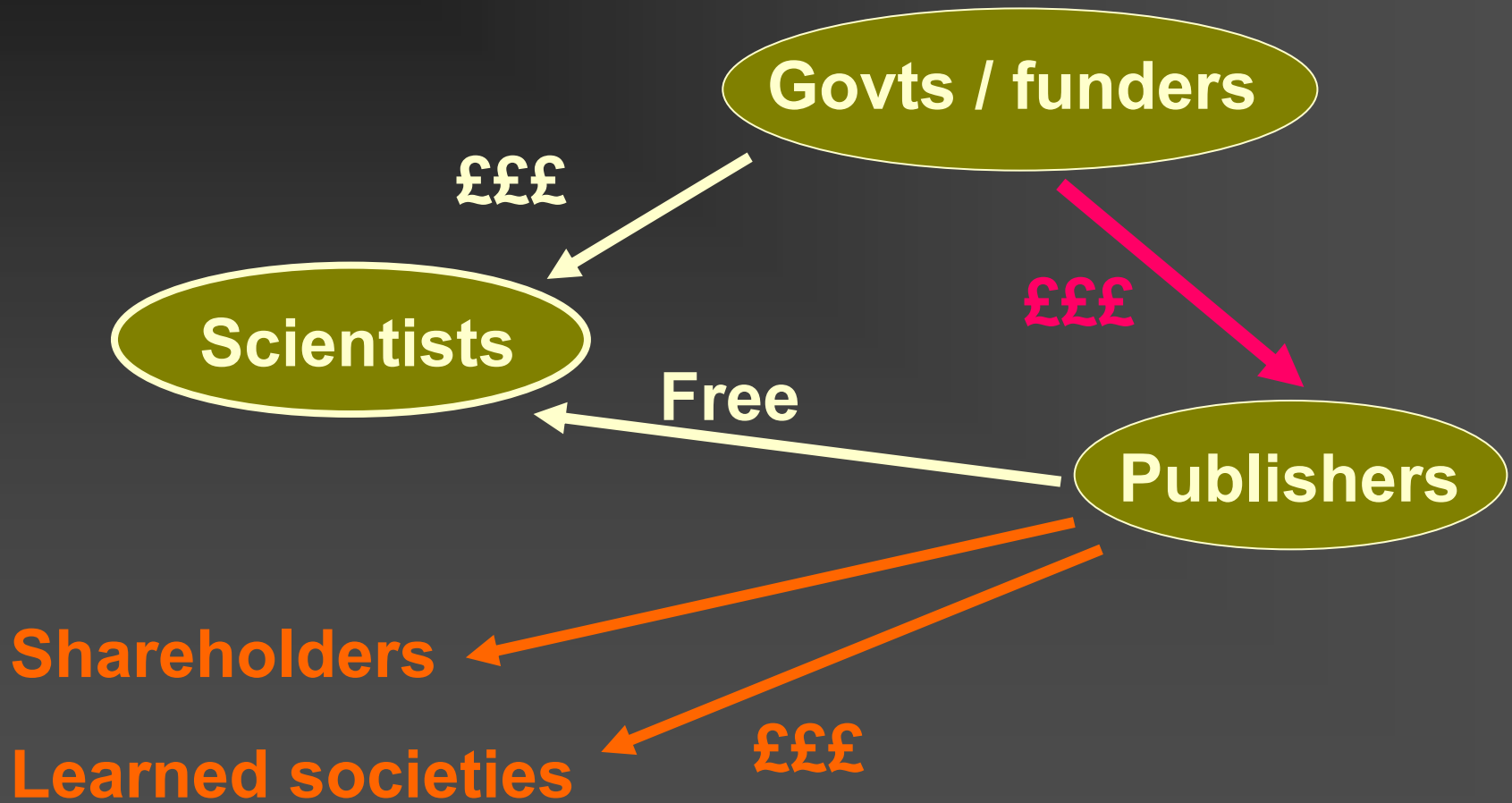
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- ‘New’ Open Access publishers
  - BioMedCentral
  - Public Library of Science
  - c1750 Open Access journals in existence
- ‘Traditional’ publishers offering a hybrid publishing model

# The scholarly journals business...



# The open access scenario



# Self-archiving

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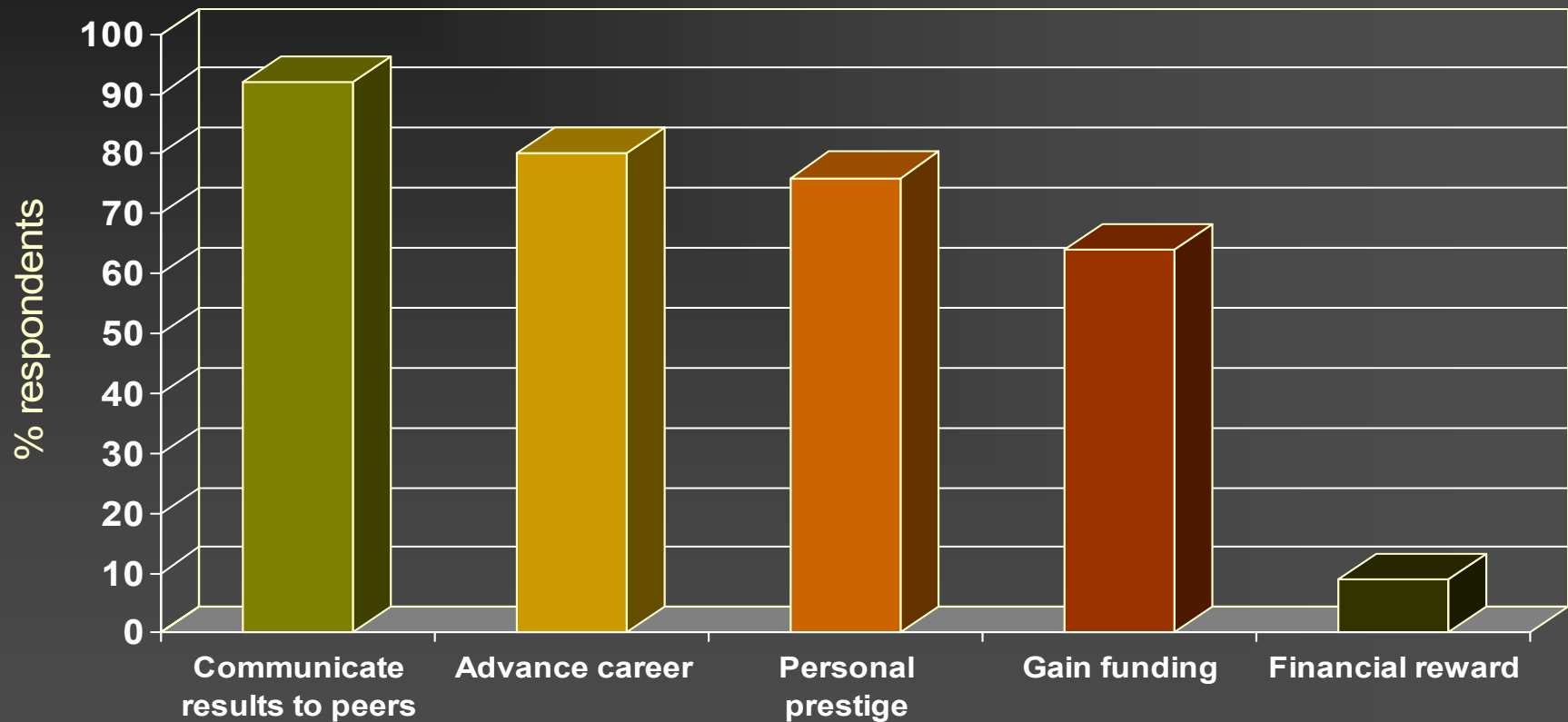
- Subject-centred repositories (e.g. arXiv)
- Institutional repositories
  - Subject coverage reflects institution
- Interoperable (Open Archives Initiative-compliant)
- Global interlinked network – a worldwide database of research

# How are the authors responding?

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- 24% have submitted an article to an Open Access journal (49% intend to)
- 22% have deposited an article in an Open Access institutional repository
- 15% have deposited an article in a subject-based Open Access repository

# Why researchers publish their work



# Open Access repositories

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- 55 in UK (at end August 2005)
- 2 in Ireland
- 400+ worldwide
- Open source software (e.g. EPrints from Southampton University)

# Developments around the world

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- Australian Govt funds nationwide network of repositories to make Australian science more visible
- French funding bodies set up OP archives
- All German universities now have a repository
- Netherlands has a nationwide ‘Cream of Science’ initiative

# The developing world...

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- India is moving fast
- Brazil is well ahead
- China now developing a policy
- Pakistan has built its first national repository

# In Britain...

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- The Wellcome Trust now has a mandate on all its grant-holders
- JISC is putting additional funds into supporting publishers who wish to develop OA journals
- RCUK (Research Councils UK) have a draft OA policy due to come into effect on October 1, 2005

# The communication of ideas

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- Speech
- Writing
- Printing
- The Internet

# Thank you for listening

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