

# To Digitise or not to Digitise: Copyright, Public Domain, Orphan Works and Other Issues

Tartu, June 6–7 2013



## *Knowledge economy and knowledge ecology - can they be compatible?*

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# ENCES

European Network for Copyright in support of Education and Science

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## About ENCES

ENCES (European Network for Copyright in support of Education and Science) is an EU-wide network of organizations and individuals in science and education who share the view that copyright is a socially valuable construct and that the primary objective of copyright is to promote the progress of science, education, and culture as public goods.

ENCES' basic assumption is that knowledge and information in its digital form should be made available to everyone from everywhere and at any time under fair conditions. This is particularly true in science and education, where access to knowledge and information is indispensable.

[More information \(pdf\)](#)



ENCES  
part of  
medanet  
Mediterranean Open Access Network

## News

[Press release on German ancillary copyright for media publishers](#)

On 12 November 2012 we publish our comment on the proposed German ancillary copyright in small parts of journalistic articles in favor of media publishers ("Leistungsschutzrecht für Pressever... [\[mehr...\]](#)

[German Federal Court of Justice asks European Court of Justice to clarify copyright directive](#)

After a long court proceedings and different decisions taken by different courts in Germany the question of whether and under which circumstances German libraries are allowed to digitize text books... [\[mehr...\]](#)

[ENCES is on Facebook!](#)

ENCES e.V. has a newly created page on Facebook. Please don't hesitate to visit us there and make friends. [\[mehr...\]](#)

[ENCES on Twitter](#)

You are welcome to follow us on Twitter! [\[mehr...\]](#)

**Knowledge ecology and knowledge economy interests - can they be compatible?**

# EIS

## European Information Science

- Open access information and communication platform.
- designed as a European initiative, EIS is open to authors from the entire world
- a multilingual platform with English the default language
- experimenting with different forms of reviewing and online web metrics for quality control
- focus on the cognitive, pragmatic, social, political, cultural, legal and ethical aspects of information
- strengthen information science in Europe

# Content - Topics

- **Proprietary and open Informations markets**
- **Knowledge economy**
- **Knowledge ecology**
- **Towards a commons-based understanding of knowledge and information**
- **Open Access - way of institutionalizing knowledge as a commons**
- **Open access and information economy**
- **Open access enforced**
- **OA Business/Financing Models**
- **Will Open Access destroy commercial information markets? It depends**

**Knowledge  
economy**

**Knowledge  
ecology**

## access to and use of knowledge and information



**proprietary  
private  
commercial  
Information markets**

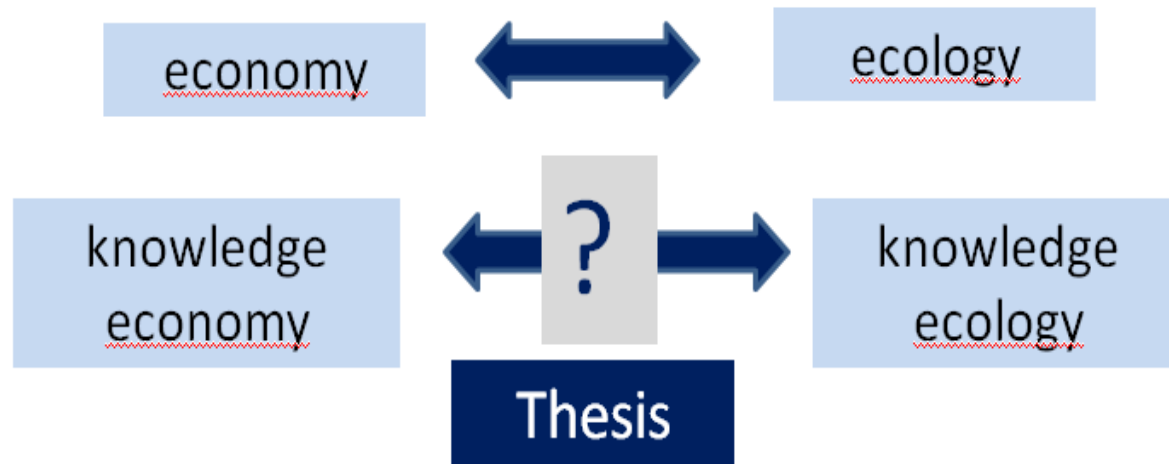
**Knowledge economy**



**open  
public  
commons-based  
Information markets**

**Knowledge ecology**

# Knowledge economy – knowledge ecology



Knowledge ecology **does not object to the commercial use of**  
**knowledge,**

but suggests that **publishing models are only acceptable when they**  
**acknowledge the status of knowledge as a commons,**

allowing free and open access for everyone  
not claiming exclusive property rights.

*Knowledge ecology and knowledge economy interests - can they be compatible?*

# Knowledge economy

Knowledge economy the private commercial exploitation of knowledge and information

Distributed, sold or licenced on global information markets

Information products - protected by copyright and considered private intellectual property

people can thus be excluded from an unrestricted use of knowledge.

Knowledge  
economy

Publishing industry in  
science

Journal  
publishing

# Knowledge economy

**Publishing industry  
in science**

**commercial  
Information markets**

**broader STM information publishing market** (including journals, books, technical information and standards, databases and tools, and medical communications and some related areas) worth some **\$23.5 billion**

**annual revenues** generated from English-language STM journal publishing are estimated at **about \$9.4 billion in 2011**

M.Ware/M. Mabe; The stm report . an overview of scientific and scholarly journal publishing.  
STM, Third edition November 2012

# Knowledge economy

**Publishing industry  
in science**

**commercial  
Information markets**

Journals publishing revenues are **generated primarily from academic library subscriptions** (68-75% of the total revenue)

Publishing industry **employs an estimated 110,000 people** globally

**USA continues to dominates the global output** of research papers with a share of about 21%

M.Ware/M. Mabe; The stm report . an overview of scientific and scholarly journal publishing.  
STM, Third edition November 2012

# Knowledge economy

**Publishing industry  
in science**

**commercial  
Information markets**

About **5000–10,000 journal publishers** globally, of which around 5000 are included in the Scopus database.

**28,100 active scholarly peer-reviewed journals** in mid 2012

**grown** steadily for over two centuries, by about **3% and 3.5% per year**

M.Ware/M. Mabe; The stm report . an overview of scientific and scholarly journal publishing.  
STM, Third edition November 2012

# Knowledge economy

**Publishing industry  
in science**

**commercial  
Information markets**

publishing about **1.8–1.9 million articles a year**

the CrossRef database included **over 56 million DOIs**, of which **46 million refer to journal articles**

**10,675 journals** included in Thomson Reuter's Journal **Citation Reports database** (8200 in the Science Edition and 2900 in the Social Sciences Edition)

M.Ware/M. Mabe; The stm report . an overview of scientific and scholarly journal publishing.  
STM, Third edition November 2012

# Knowledge ecology

Knowledge ecology the **sustainable treatment of knowledge and information.**

This can only be achieved not by making knowledge a scarce resource but making it **an open space and providing open access to and free use of it.**

# Towards a **commons-based** understanding of knowledge and information

*Knowledge ecology and knowledge economy interests - can they be compatible?*

# Towards a commons-based understanding of knowledge and information

The concept of **knowledge and information as commons** will be used

to **overcome** both

- the *current deadlock in the worldwide copyright regulation*
- *the dominance of the* **commercial exploitation of knowledge and information**

And to restore the **legitimate claims** of the public need for free and **open access** and use of published knowledge.



Commons

# Towards a commons-based understanding of knowledge and information

Common Pool Resources



Commons

Common heritage  
of nature

Commons are institutionalized  
„common-pool resources“

Common heritage of  
social life

Commons heritage of  
cultural creativity

knowledge and  
information

Figure 1.1

THE THREE FORKS OF THE COMMONS RIVER

## Nature

Air...water...dna...photosynthesis...seeds...topsoil...airwaves...minerals...  
animals...plants...antibiotics...oceans...fisheries...aquifers...quiet...  
wetlands...forests...rivers...lakes...solar energy...wind energy...

## Community

Streets...playgrounds...the calendar...holidays...universities...libraries...museums...  
social insurance...law...money...accounting standards...capital markets...  
political institutions...farmers' markets...flea markets...craigslist...

## Culture

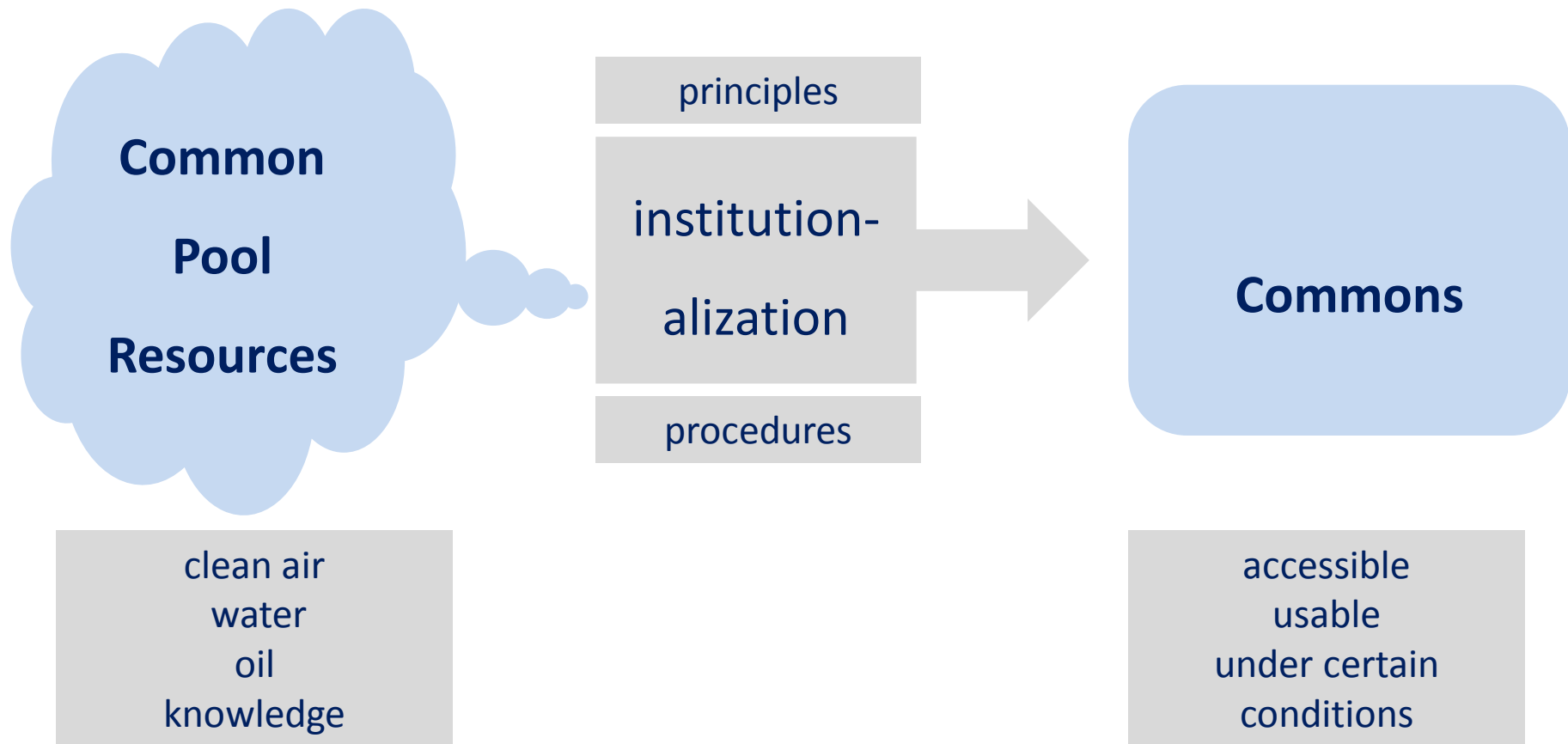
Language...philosophy...religion...physics...chemistry...musical instruments...  
classical music...jazz...ballet...hip-hop...astronomy...electronics...the internet...  
broadcast spectrum...medicine...biology...mathematics...open source software...

The  
Commons

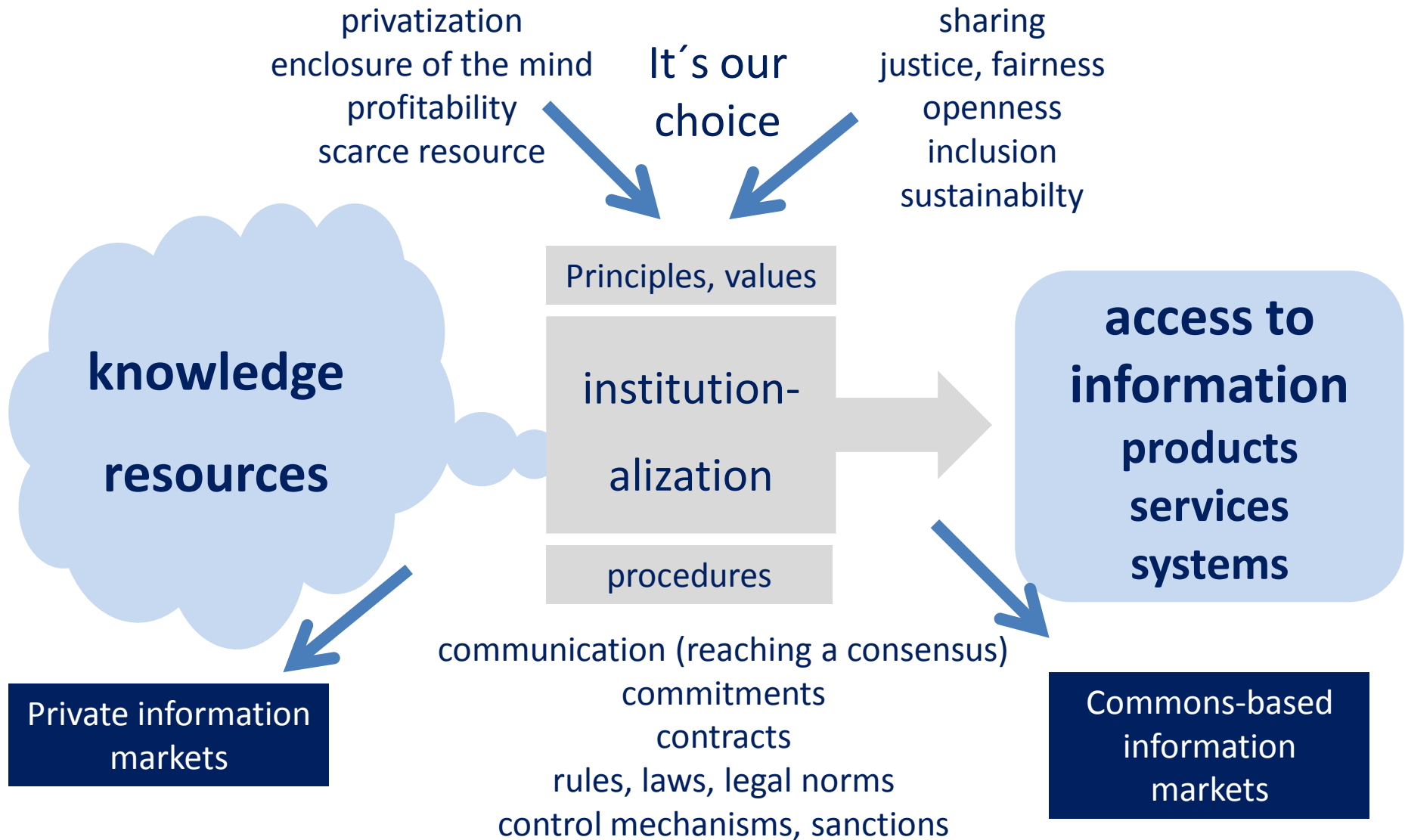
From: Peter Barnes: Capitalism 3.0

# Towards a commons-based understanding of knowledge and information

**Commons are socially constructed.**



# Towards a commons-based understanding of knowledge and information



*Knowledge ecology and knowledge economy interests - can they be compatible?*

Open Access  
a way of institutionalizing  
knowledge as a commons

# Open Access - way of institutionalizing knowledge as a commons

Open access contributions must satisfy two conditions (according to Berlin OA Declaration):



„(1) The author(s) and right holder(s) of such contributions **grant(s) to all users a free, irrevocable, worldwide, right of access to, and a license to copy, use, distribute, transmit and display the work** publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, **subject to proper attribution** of authorship (community standards, will continue to provide the mechanism for enforcement of proper attribution and responsible use of the published work, as they do now), as well as the right to make small numbers of printed copies for their personal use.”

[Berlin Declaration](#) on Open Access to Knowledge in the Sciences and Humanities

# Open Access - way of institutionalizing knowledge as a commons

Open access contributions must satisfy two conditions:



„(2) A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in an **appropriate standard electronic format is deposited** (and thus published) in at least one **online repository** using suitable technical standards (such as the Open Archive definitions) that is supported and maintained by an **academic institution, scholarly society, government agency**, or other well Established organization that seeks to enable open access, **unrestricted distribution, inter operability, and long-term archiving.**”

[Berlin Declaration](#) on Open Access to Knowledge in the Sciences and Humanities

# Knowledge ecology

Open information  
markets in science

Commons-based  
Information markets

## Directory of OA Journals:

7183 journals, 650572 articles (19.10.2011)

7449 journals, 745962 articles (31.1.2012)

**9411 journals, 1099912 articles (1.6.2013)**

almost 4 journals per day  
since 10/2011

still only about 2,4 % of  
all commercially  
available articles

“**Ulrich’s Directory** lists 4365 peer reviewed OA journals, or about 13% of the total number of peer reviewed journals included”

“Scopus covers 18,500 peer-reviewed journals, of which 1800 or 9.7% are open access, while the proportion of OA journals covered by Journal Citation Reports is about 8%.”

-

STM report 2012

# Scientific Impact

Open information  
markets in science

Commons-based  
Information markets

## Results

**Overall**, average **citation rates**, ... were about **30% higher for subscription journals**. However, after controlling for **discipline** (medicine and health versus other), **age of the journal** (three time periods) and the **location of the publisher** (four largest publishing countries versus other countries) the **differences largely disappeared** in most subcategories except for journals that had been launched prior to 1996.

Bo-Christer Björk; David Solomon: Open access versus subscription journals: a comparison of scientific impact.  
*BMC Medicine* 2012, 10:73 - <http://www.biomedcentral.com/1741-7015/10/73>

# Scientific Impact

Open information  
markets in science

Commons-based  
Information markets

## Results

OA journals that fund publishing with **article processing charges (APCs)** are on **average cited more than other OA journals**. In medicine and health, **OA journals founded in the last 10 years are receiving about as many citations as subscription journals launched during the same period**.

Bo-Christer Björk; David Solomon: Open access versus subscription journals: a comparison of scientific impact.  
*BMC Medicine* 2012, 10:73 - <http://www.biomedcentral.com/1741-7015/10/73>

*Knowledge ecology and knowledge economy interests - can they be compatible?*

# Scientific Impact

Open information  
markets in science

Commons-based  
Information markets

## Conclusions

Our results indicate that **OA journals indexed in Web of Science and/or Scopus are approaching the same scientific impact and quality as subscription journals**, particularly in biomedicine and for journals funded by article processing charges.

Bo-Christer Björk; David Solomon: Open access versus subscription journals: a comparison of scientific impact.  
*BMC Medicine* 2012, 10:73 - <http://www.biomedcentral.com/1741-7015/10/73>

# Open access and information economy

*Knowledge ecology and knowledge economy interests - can they be compatible?*

# Commercial adaptation of Open Access

More and more **publishers** (in particularly the four dominating ones) **accept** the **OA-paradigm** and **see their future in OA publishing**

Elsevier  
Wiley  
Thompson  
Springer

**enforced by**

users

markets

legislation/  
copyright

private or  
public  
foundations

political  
commit-  
ment

golden

delayed  
subsequent  
subscription

green

*Knowledge ecology and knowledge economy interests - can they be compatible?*

authors

golden

## The Cost of Knowledge

Academics (12.663 – Stand 10092012) have protested against Elsevier's business practices for years with little effect. ...

The key to all these issues is the right of authors to achieve easily-accessible distribution of their work.

I fully agree with this initiative - even more I hold the view that the commercial exploitation of knowledge should be the exception and free open access the default.

markets

green

ELSEVIER



Researchers in many developing countries get an Elsevier journal articles

When you publish in any one of 1,600 Elsevier journals, you accessed by researchers in more than 100 developing countries

Last year, more than 2.6 million articles by Elsevier authors were downloaded by researchers, clinicians and other users in the developing world.



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- The right to post a revised personal version of the text of the final article (to reflect changes made in the peer review process) on the author's personal or institutional web site or server, with a link to the journal home page (on **elsevier.com**).
- The right to present the article at a meeting or conference and to distribute copies of such paper or article to the delegates attending the meeting.
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markets

Springer Open

golden

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- Quick navigation in article HTML | XML can be downloaded.
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- Authors can supply information about payment by invoice or credit card or indicate their eligibility for waivers.
- Articles by authors from a member institution enjoy centralized payment and/or a discounted fee as well as promotion on a special member page.
- Use of blogs, tweets and social networking for promotion and visibility.

libraries, agencies

SCOAP

golden

In this model, High-Energy Physics (HEP ) funding agencies and libraries, which today purchase journal subscriptions to implicitly support the peer-review service, **federate to explicitly cover its cost**, while **publishers make the electronic versions of their journals free to read**. **Authors are not directly charged** to publish their articles OA.

Today, most publishers quote a price in the range of 1'000–2'000 Euros per published article. On this basis, we estimate that the annual budget for the transition of HEP publishing to OA **would amount to a maximum of 10 Million Euros/year, sensibly lower than the estimated global expenditure in subscription to HEP journals**.

Each SCOAP<sup>3</sup> partner will **finance its contribution by canceling journal subscriptions**. Each country will contribute according to its [share of HEP publishing](#).

foundations

golden

encourage  
request, not require

## Publications Policy

### Open Access Archiving



Nach: <http://www.sherpa.ac.uk/juliet/index.php?fPersistentID=5#oapublishing>

<b>Whether to Archive:</b>	* Encourages deposition in Open Access archives
<b>What to Archive:</b>	* Peer-reviewed publications * Publisher's version <i>and/or</i> Author's final version * PDF file
<b>When to Archive:</b>	* At the date of publication * Acceptable embargo: up to 12 months after publication

### Open Access Publishing

<b>Whether to Publish:</b>	* Encourages publication in Open Access publications
<b>Where to Publish:</b>	* in a peer-reviewed open access journal (Optional)

Public foundations

NIH

require

golden



## The law states:

The [NIH Public Access Policy](#) ensures that the public has access to the published results of NIH funded research. It **requires** scientists to submit final peer-reviewed journal manuscripts that arise from NIH funds to the digital archive [PubMed Central](#) *upon acceptance for publication*. To help advance science and improve human health, the Policy requires that these papers are accessible to the public on PubMed Central no later than 12 months after publication.

The NIH Public Access Policy applies to all peer-reviewed articles that arise, in whole or in part, from direct costs <sup>1</sup> funded by NIH, or from NIH staff, that are accepted for publication on or after April 7, 2008.

<http://publicaccess.nih.gov/policy.htm>

Private foundations

golden

require

**Wellcome Trust** policy tightening (June 2012)

introducing sanctions for non-compliance and a move to CC-BY licenses

**Political  
commitment**

golden

green

UK

Policies on open access to scientific research results should apply to all research that receives public funds.

**Free access to British scientific research  
within two years**

Radical shakeup of academic publishing will allow papers to be put online and be accessed by universities, firms and individuals

Open access is a key feature of Member States' policies for responsible research and innovation by making the results of research available to all and by facilitating societal engagement.

**Finch Report of the Working  
Group on Expanding Access to  
Published Research Findings – the  
Finch Group**

[http://www.researchinfonet.org/  
publish/finch/](http://www.researchinfonet.org/publish/finch/)

**“Accessibility, sustainability,  
excellence: how to expand access  
to research publications”**



Professor Dame Janet Finch's recommendations on open access publishing prompted the government's decision.

***Knowledge ecology and knowledge economy interests - can they be compatible?***

Political  
commitment

UK

golden

green

Free access to British scientific research  
within two years

Radical shakeup of academic publishing will allow papers to be  
put online and be accessed by universities, firms and individuals

“British universities now pay around £200m a year **in subscription fees** to journal publishers, but under the new scheme, authors will pay **"article processing charges"** (APCs) to have their papers peer reviewed, edited and made freely available online. The typical APC is around £2,000 per article.”

"In all cases universities upon receipt of funding should **transfer these charges to their institutional publication fund**" ...

"A university can then **use these funds to pay for APCs** for any article resulting from research council funding."

“cost of the transition, which could reach £50m a year, **must be covered by the existing science budget and that no new money** would be found to fund the process.”



Minister of State  
for Universities  
and Science

COMMISSION RECOMMENDATION of 17.7.2012  
on access to and preservation of scientific  
information

Political  
commitment

EU

golden

green

Cf. Commission Communication (12 Dec  
2011) on open data - a proposal for a  
Directive amending Directive 2003/98/EC

Policies on **open access to scientific research results** should apply to all  
research that receives public funds.

Open access is a key feature of Member States' policies for responsible  
research and innovation by **making the results of research available to  
all and by facilitating societal engagement.**

COMMISSION RECOMMENDATION of 17.7.2012  
on access to and preservation of scientific  
information

Political  
commitment

EU

golden

green

result of these policies:

there should be open access to publications resulting from publicly funded research as **soon as possible, preferably immediately and in any case no later than six months** after the date of publication, and twelve months for social sciences and humanities;

**licensing systems** contribute to open access to scientific publications resulting from publicly-funded research in a balanced way, in accordance with and without prejudice to the applicable copyright legislation, and **encourage researchers to retain their copyright while granting licences to publishers;**

In Horizon 2020, both the 'Green' and 'Gold' models are considered valid approaches to achieve open access.

**Political  
commitment**

**EU**

All projects will be **requested** to immediately deposit an electronic version of their publications (final version or peer-reviewed manuscript) into an archive in a machine-readable format.

This can be done using the '**Gold**' model (open access to published version is immediate), or the '**Green**' model.

In this case, the Commission will allow an **embargo period of a maximum of six months**, except for the **social sciences and humanities** where the maximum will be **twelve months** (due to publications' longer 'half-life')

The European Commission will continue to fund projects related to open access. In 2012- 2013, the Commission will spend €45 million on data infrastructures and research on digital preservation. Funding will continue under the Horizon 2020 programme.

# OA Business Models

# OA Business/Financing Models

“author-side payment” model, where the author (or usually his/her research funder or institution) pays a publication charge (**article processing charges**) (APCs) )

**Table 4:** Publication charges for a selection of full and hybrid OA journals. Various discounts (society members, subscribing/“member” institutions, low-income countries, etc.) not shown. (Source: publisher websites, October 2012; £/\$=1.6, €/\$=1.3)

<i>Journal/publisher</i>	<i>Full/Hybrid OA</i>	<i>Charge (US\$)</i>
American Institute of Physics	Full/ Hybrid	1350–1800
American Physical Society	Full/ Hybrid	1500–2700
BioMed Central	Full	630–2635 (median 2025)
Hindawi	Full	300–1750 (median 600)
BMJ Group	Full/ Hybrid	1920–4000
Cambridge University Press (147 journals)	Hybrid (Full planned)	2700 (STM) 1350 (HSS)
Elsevier - <i>Cell Reports</i> - case reports, comms	Full/ Hybrid	Mostly ~3000 5000 500–600
<i>New Journal of Physics</i> / IOP-DPG	Full	1440

# OA Business/Financing Models

“author-side payment” model, where the author (or usually his/her research funder or institution) pays a publication charge

<i>Journal/publisher</i>	<i>Full/Hybrid OA</i>	<i>Charge (US\$)</i>
Oxford University Press	Hybrid Full	1615–3000 475–2770
PLOS - <i>PLOS ONE</i>	Full	2250–2900 1350
Royal Society (London)	Hybrid Full	2380 1932
Springer (see also BMC above)	Hybrid	3000
Wiley-Blackwell	Hybrid Full	3000 1450–3900

# OA Business/Financing Models

## Publisher driven

commercial reprints

classified advertising

subscriptions to print editions

value-adding services

## Public pays

APC -author-side payment”  
model

institutional memberships”

grants by foundations

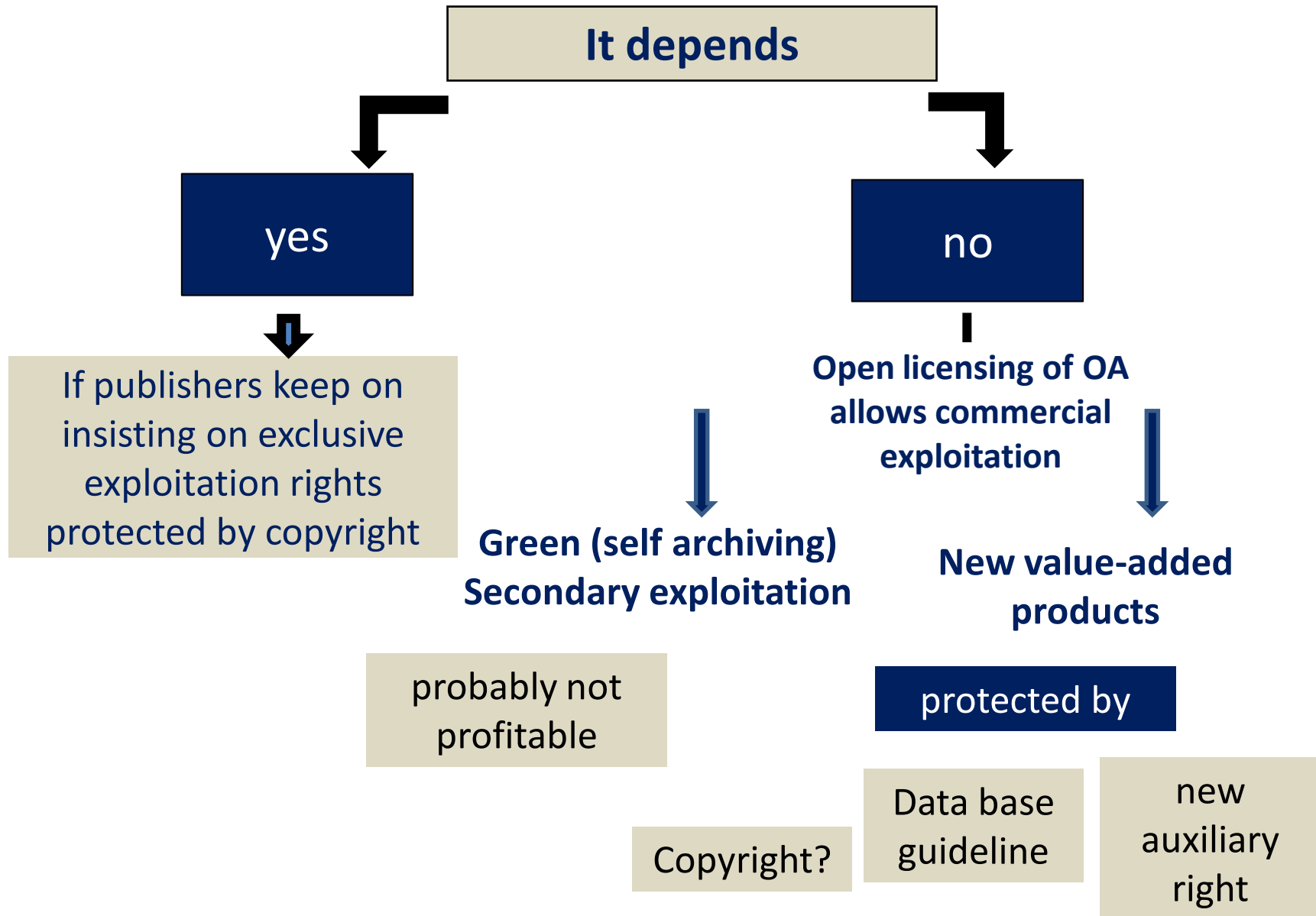
sponsorship

establish open access  
across to major fields of  
science such

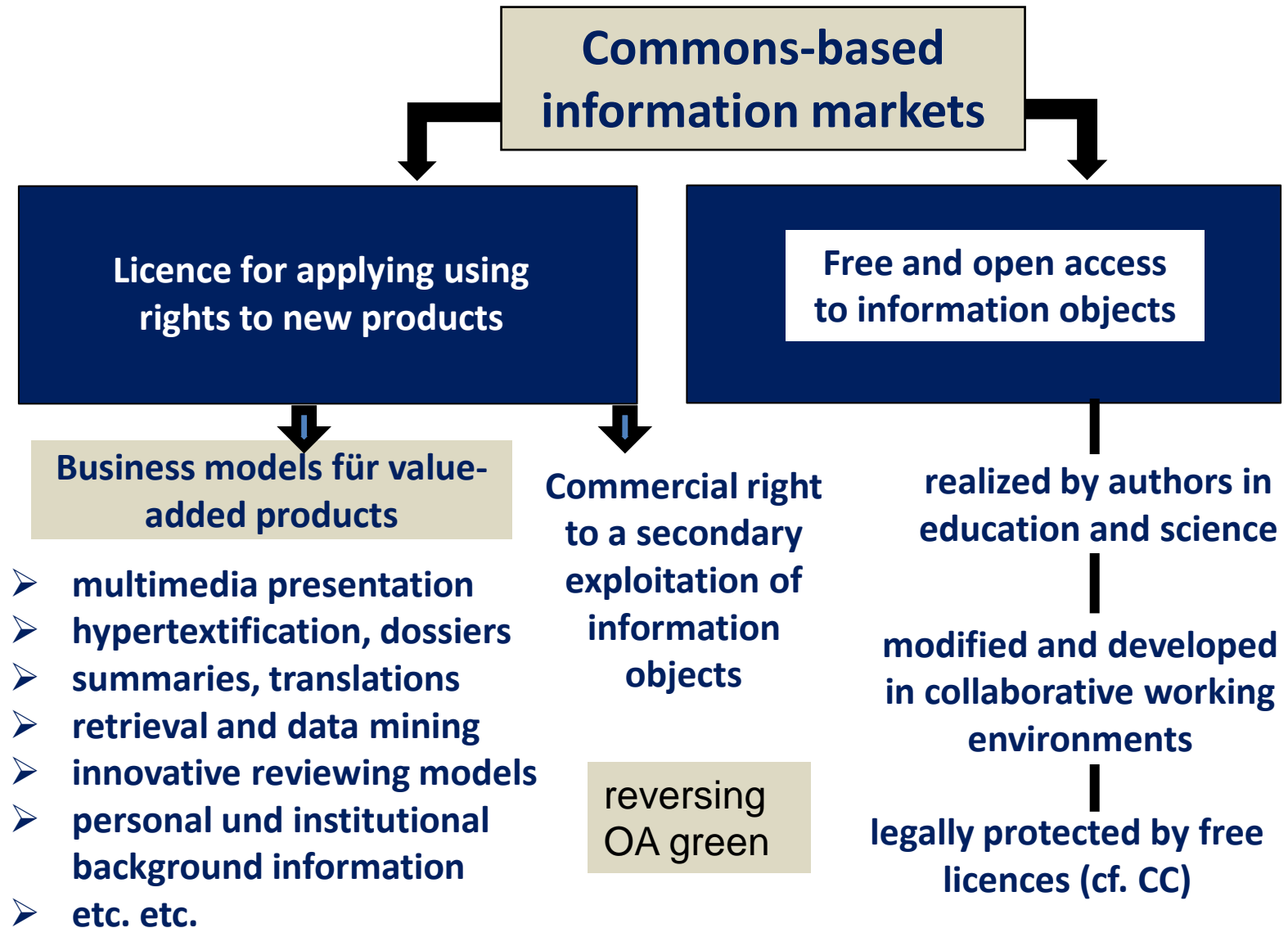
library/research budgets

# Perspectives

# Will Open Access destroy commercial information markets?



# Models of a *commons-based information economy/society*



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attention***

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