



Universität Bern 13. Mail 2016

## Vernissage des neuen Bandes von "Informationswissenschaft: Theorie, Methode und Praxis"

Gastvortrag von Prof. Dr. Rainer Kuhlen

**Open Access – ein neues Geschäftsmodell und/  
oder ein Kreativitäts- und Innovationspotenzial  
für Wissenschaft und Wirtschaft**

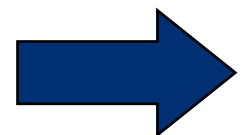


Donnerstag

12. Mai 2016, 18.15 Uhr, Universität Bern, Hauptgebäude,  
Hochschulstrasse 4, Raum 106

FB Informatik und Informationswissenschaft - Universität Konstanz

[www.kuhlen.name](http://www.kuhlen.name)



# Fragen

- 1. Gibt es eine Krise im kommerziellen Informationsmarkt?**
- 2. Ist Open Access Publizieren kompetitiv oder sogar substitutiv zum kommerziellen Publizieren?**
- 3. Werden kommerzielle Verleger Open Access akzeptieren?**
- 4. Sind öffentliche Institutionen bereit, kommerzielles Open Access zu finanzieren? Sollten sie das tun?**
- 5. Wird Open Access in absehbarer Zukunft zum Default-Publikationsmodell? Warum?**
- 6. Ist Open Access kreativitätsfördernd für Wissenschaft?**
- 7. Ist Open Access innovationsfördernd für Wirtschaft?**
- 8. Stärkt durchgängiges Open Access die Arbeit der Bibliotheken?**
- 9. Wird noch Urheberrechtsregulierung gebraucht, wenn Open Access das Default- Publikationsmodell wird?**

# DIE Fragen

Sind *commons-based* Informationsmärkte  
kreativitäts- und innovationsfördernd?

Wissensökonomie und Wissensökologie – sind sie  
miteinander verträglich?

# Proprietary and open Informations markets

**access to and use of knowledge and information**



**proprietary  
private  
commercial  
Information markets**

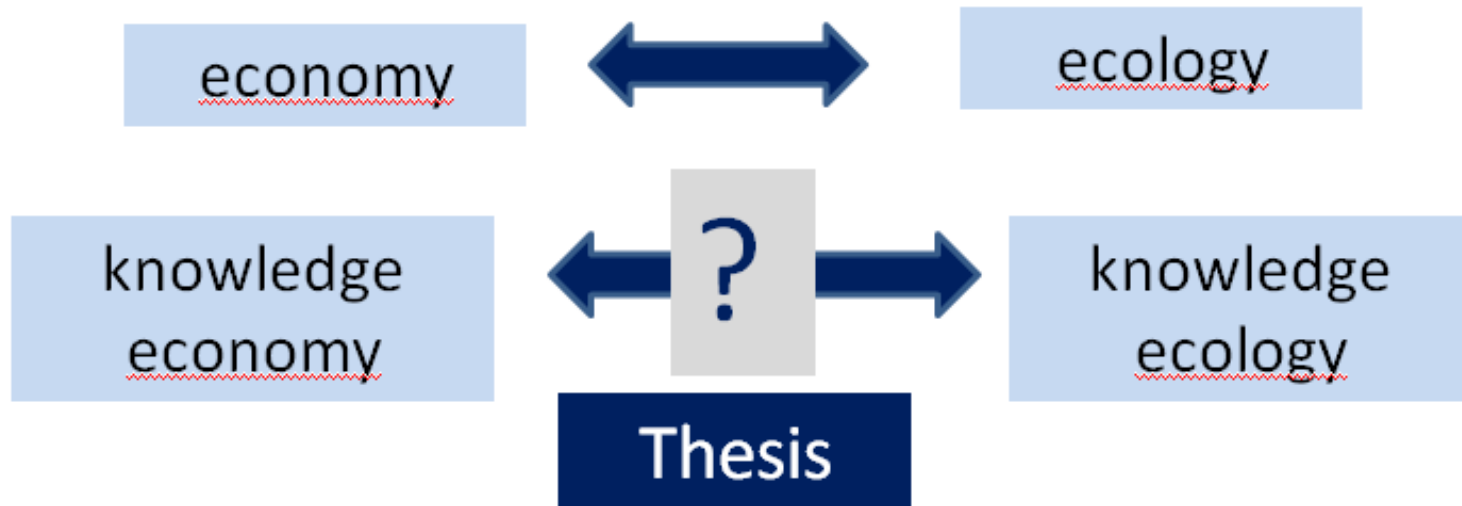
**Knowledge economy**



**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.

# Towards a commons-based understanding of knowledge and information

## Commons

**Common heritage  
of nature**

water, air

**Common heritage of  
social life**

Public spaces  
law, libraries

**Commons heritage of  
cultural creativity**

the arts  
knowledge and information

## Common Pool Resources

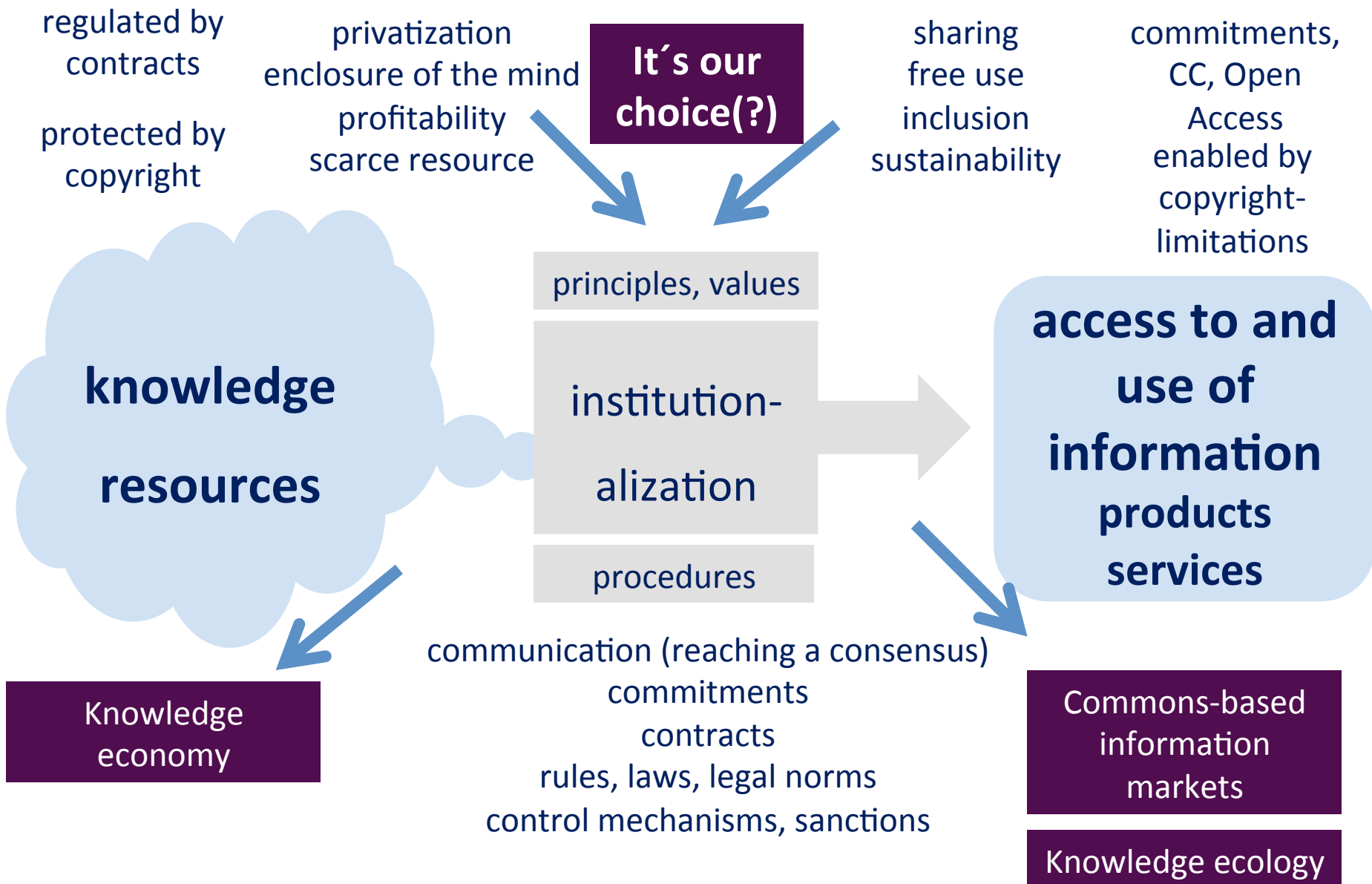
**Commons are institutionalized  
„common-pool resources“**

# Towards a commons-based understanding of knowledge and information

Commons

Common Pool  
Resources

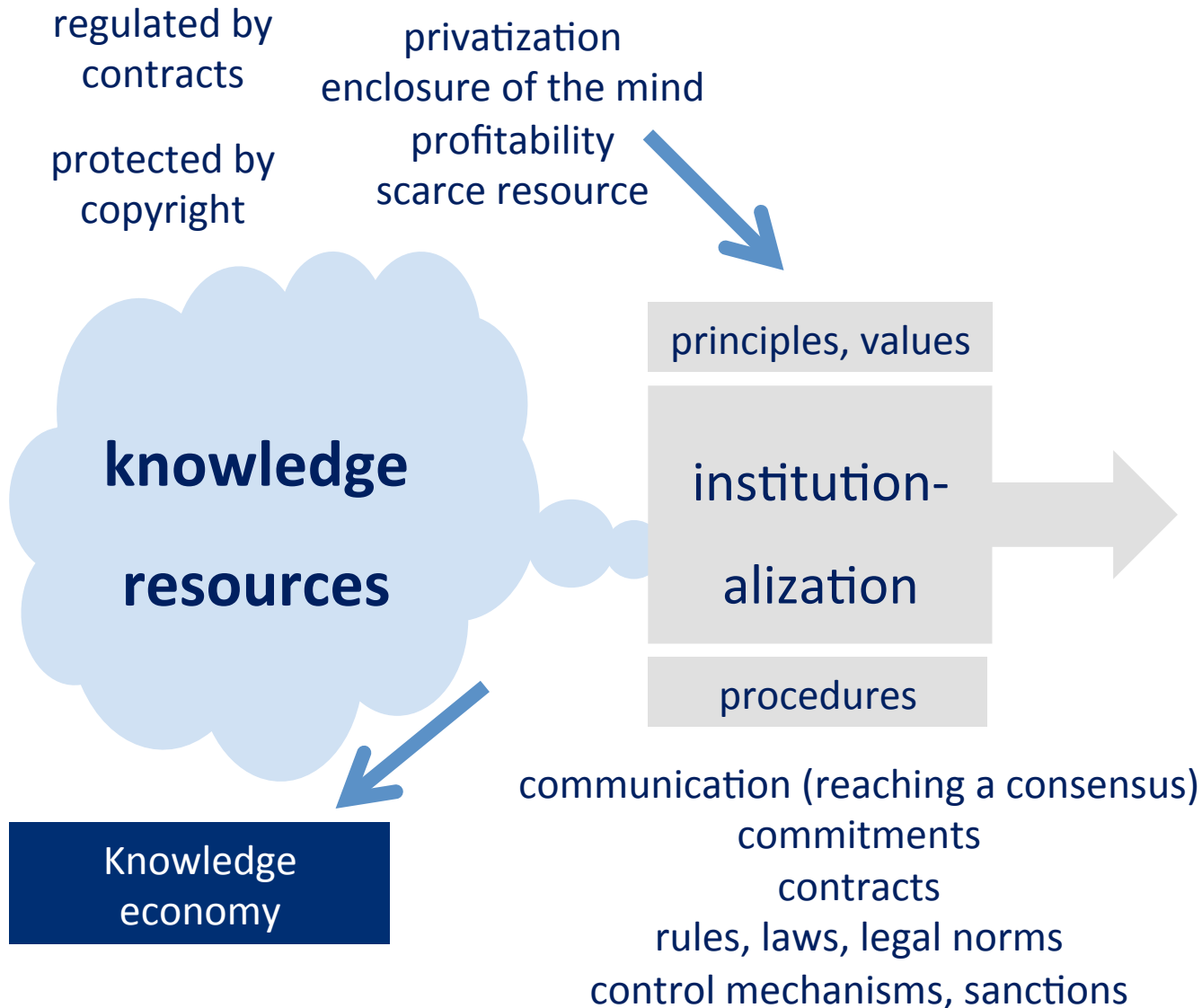
# Towards a commons-based understanding of knowledge and information





# Knowledge Economy

# Knowledge Economy



# Commercial scientific publishing market – 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

## Commercial scientific publishing market

5000–10,000 **journal publishers** globally (5000 in the SCOPUS database)

Science publishing industry **employs** an estimated 110,000 people globally, of which about 40% are employed in the EU

STM **book market** (about \$5 billion annually) – ebooks 17% 2012 –rapidly increasing

28,100 active scholarly **peer-reviewed journals** late 2014

Publishing about 2.5 million **articles** a year

More than 50 million articles subject to retrieval and download

Virtually all STM journals are now **available online**

**Annual revenues** generated from English-language STM journal publishing are estimated at about \$10 billion in 2013 - a broader STM information publishing market worth some \$25,2 billion

Data-intensive research is **challenging publishers** to create new solutions to link publications to research data (and vice versa), to facilitate data mining

**still a very  
powerful and  
profitable  
market**

# Commercial scientific publishing market – knowledge economy

still a very powerful and profitable market

and supported/financed by public  
money



Contract between Elsevier  
and France (*Couperin* and  
*Agence bibliographique de  
l'enseignement supérieur*)

2014-2018 - 172 Mio. EURO  
for **closed access journals**

<http://wisspub.net/2014/11/12/details-zum-elsevier-deal-in-frankreich/>



German science libraries  
pay about 600 Mio Euros/y  
for commercial  
publications



Contract between Baden-  
Württemberg and Springer  
starting 2015

Free access to 1.917  
Springer journals for 51  
academic institutions in B.-  
W.

# Commercial scientific publishing market – knowledge economy

still a very powerful and profitable market

but

More and more people claim that the **public should have the right to freely access and use scientific work produced in public environments and supported by public money.**

# Commercial scientific publishing market – knowledge economy

still a very powerful and profitable market

but

**More and more authors** in science, frustrated by publishers' business models, **choose open access** journals and *free licenses* as the **primary** or at least **secondary** means of publication



Open access golden

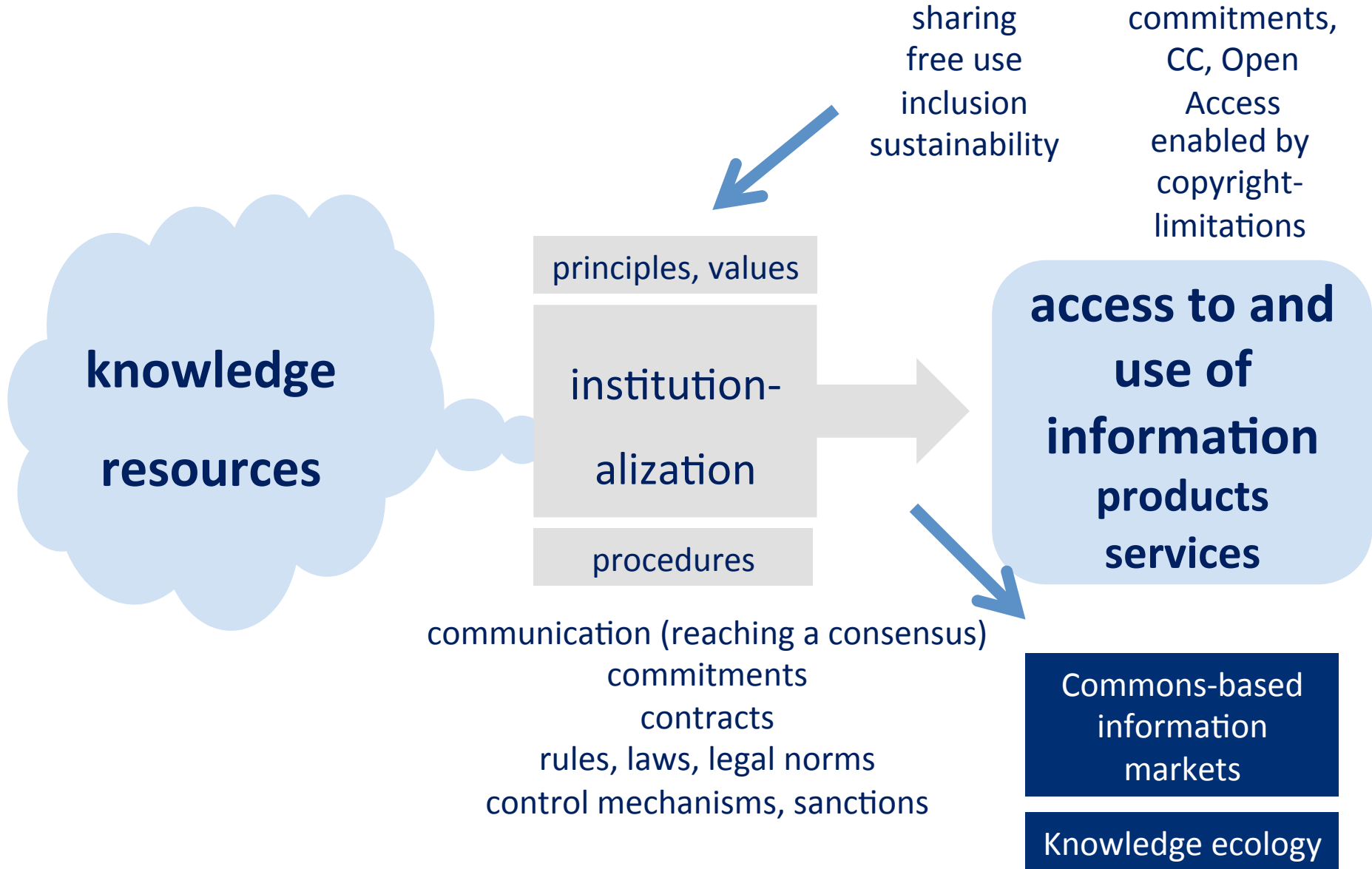


Open access green

# Knowledge Ecology



# Knowledge ecology



## Open access as an alternative to traditional commercial publishing

### Open-Access-based information markets

golden

DOAJ <https://doaj.org/>

DOAB <http://www.doabooks.org/doab>

7183 journals, 650572 articles (19.10.2011)

7449 journals, 745962 articles (31.1.2012)

9411 journals, 1099912 articles (1.6.2013)

9741 journals, 1,592,661 articles (26.3.2014)

10,319 journals, 1,852,651 articles (18.3.2015)

**8813 Journals, 1,974,607** articles (12.5.2016)

(129 countries)

approx 4 journals/day since  
2011

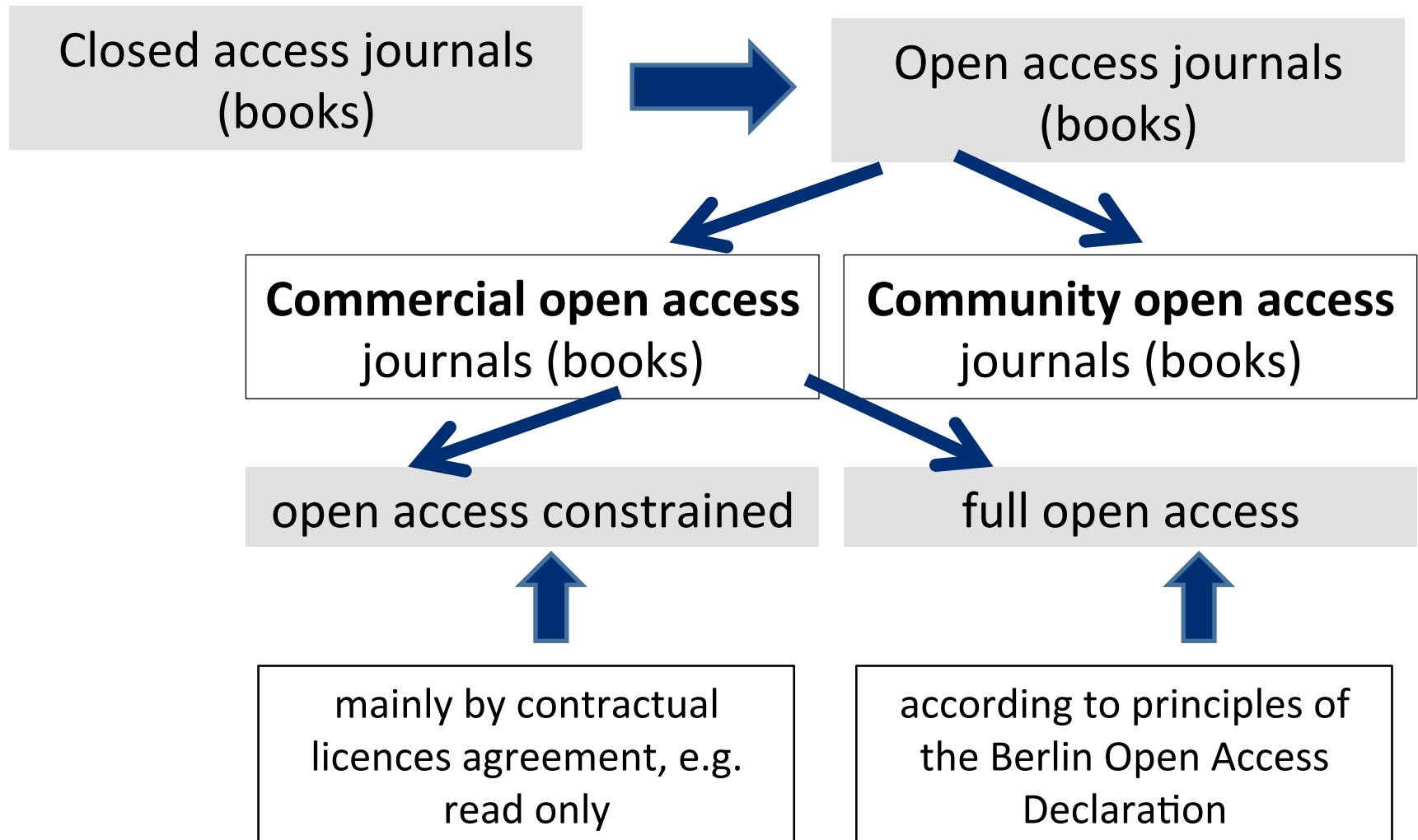


3100 Academic peer-reviewed  
books from 107 publishers  
(09.06.2015)

**4649 books from 154  
publishers (12.5.2016)**

but still only about 4 % of all  
commercially available articles

# Closed – Open



# Will commercial publishers accept the OA paradigm?

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

Elsevier  
Wiley  
Thompson  
Springer

golden

and see their future in OA publishing

green

enforced by

Markets

Moral behavior

Users, NGOs  
science  
organisations

Research  
funding  
organisations

Political  
commit-  
ment

## 13696 Researchers Taking a Stand. [\*See the list\*](#)

Academics have protested against Elsevier's business practices for years with little effect. These are some of their objections:

1. They charge exorbitantly high prices for subscriptions to individual journals.
2. In the light of these high prices, the only realistic option for many libraries is to agree to buy very large "bundles", which will include many journals that those libraries do not actually want. Elsevier thus makes huge profits by exploiting the fact that some of their journals are essential.

The key to all these issues is the right of authors to achieve easily-accessible distribution of their work. If you would like to declare publicly that you will not support any Elsevier journal unless they radically change how they operate, then you can do so by filling in your details on this page.

# Will commercial publishers accept the OA paradigm?

markets

Open access enforced

green

**Publishers increasingly agree to open access**

**green**/self archiving

About 80 % of all published articles could be open access available (OA green) – mostly with an embargo time between 6 and 8 months

**Sherpa/Romeo**

[http://](http://www.sherpa.ac.uk/romeo/)

[www.sherpa.ac.uk/](http://www.sherpa.ac.uk/romeo/)

[romeo/](http://www.sherpa.ac.uk/romeo/)

in reality probably less than 30 %

This will change with the right to a second open publication (added to copyright law) and even more when it will be mandated.

M. Laakso, M.: Green open access policies of scholarly journal publishers: a study of what, when, and where self-archiving is allowed. Scientometrics 2014. In press. <http://dx.doi.org/10.1007/s11192-013-1205-3>.

# Will commercial publishers accept the OA paradigm?

markets

Springer Open

golden

## Open access for authors in all disciplines

SpringerOpen makes it easier than ever for authors to comply with open access mandates, retain copyright and benefit from Springer's trusted brand.

## SpringerOpen features

- Rigorous peer review.
- E-only and continuous publication.
- No page budgets or restrictions on color, multi-media, or other supplemental elements.
- Considered by ISI and other abstracting & indexing services; the services apply the same standards as they do for traditional journals.
- Thumbnails of additional files (e.g. embedded movies) shown in the article.
- Quick navigation in article HTML | XML can be downloaded.
- See 'most viewed' articles and articles citing an article.

Open access enforced

## Welcome SpringerOpen authors

- Authors retain copyright under the Creative Commons Attribution License.
- Articles freely available online and can be freely redistributed and reused.
- Easy to use submission system allows the upload of manuscripts in various formats as well as multimedia and datasets.
- Personalized website allows users to track manuscripts they are working on as authors, editors or reviewers and even pause and return to task later.
- 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.

# Will commercial publishers accept the OA paradigm?

Public foundations

NIH

Open access enforced

golden

require



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>



# Will commercial publishers accept the OA paradigm?

Open access enforced

Private foundations

golden

require

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

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

# Will commercial publishers accept the OA paradigm?

Government

gold

green

UK

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

**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.

# Will commercial publishers accept the OA paradigm?

Government

gold

green

UK

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.”

“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

# Will commercial publishers accept the OA paradigm?

Open access enforced

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 spent €45 million on data infrastructures and research on digital preservation. Funding will continue under the Horizon 2020 programme.

**Who pays?**

## Public pays

**APC** (article-processing charge) paid by the **authors** respectively by their **institutions**

APC payed by **foundations** or by grants/  
sponsorships

APC payed by a **library** for its scientists or by a flat-  
rate contract

By library/research **budgets**

By research institutions

By **nation-wide (flat-rate)** – contractual agreements

SCOAP-model – a **network of domain-specific institutions** (High-Energy Physics)

etc. etc.

# Financing models for commercial open access

## Public pays

Is it reasonable and/or is it in line with market principles when **commercial publishing organizations are subsidized** by public institutions?

Is the “public pays” model a threat to libraries?

Is it more reasonable (efficient?) when **publicly financed organizations** (such as libraries together with research institutions) **build an open access publishing infrastructure by themselves**?

# Beyond traditional publishing and traditional business models

Without  
publisher

Direct open access publishing without journals

With  
publisher

Freeconomics (Google etc.)

With  
publisher

Zero marginal cost economy (Rifkin)



**Is there still a need  
for copyright  
regulation in science  
and education?**

# Is there still a need for copyright related to science and education?

(Existing) **copyright** regulation/laws turn out to be an **disabling means** for new business models and information services in the Internet **rather than an enabling** one.

Why is that?

# Is there still a need for copyright related to science and education?

## **The copyright myth**

Strong copyright will stimulate creativity in science and will further commercial innovation

The opposite is true (according to many empirical studies)

**The more open the system of copyright limitations is the better creativity and innovation are promoted**

## The more open the system of copyright limitations is the better creativity and innovation are promoted

“The analysis of ... **innovation processes** has also often shown a puzzling phenomenon: innovating users often **do not sell or license** their innovations to manufacturers. Instead, they **freely reveal** details of their innovations to other users and to manufacturers.”

**Dietmar Harhoff; Joachim Henkel; Eric von Hippel (2003): Profiting from voluntary information spillovers:** how users benefit by freely revealing their innovation

Research Policy 32 (2003) 1753–17 -

[http://www.inno-tec.bwl.uni-muenchen.de/files/forschung/publikationen/harhoff/Profiting\\_20from\\_20voluntary\\_20information\\_20spillovers.pdf](http://www.inno-tec.bwl.uni-muenchen.de/files/forschung/publikationen/harhoff/Profiting_20from_20voluntary_20information_20spillovers.pdf)

## The more open the system of copyright limitations is the better creativity and innovation are promoted

“from the side of the copyright industries there is preference for a **strong copyright** (strong protection of the authors’ and exploiters’ rights): “, no more incentive to create or to invest in the creation of the new works will exist“ when „too much is taken away from right holder“ (518).

“This Article takes the opposite position. It argues that in a **knowledge-based society, a well - designed limitation system** can greatly benefit **innovation and creativity**, and also readjust the **copyright balance in favor of creators**, assuring that they receive their fair share of profits generated by their works.” (518)

**Christophe Geiger (2010): Promoting Creativity through Copyright Limitations: Reflections on the Concept of Exclusivity in Copyright Law.**

*Vanderbilt Journal of Entertainment & Technology Law*, vol. 12, No. 3 (spring 2010)

# Is there still a need for copyright related to science and education?

When everything will be published in the open access paradigm

yes

**protection of moral rights**

right to decide when and how to publish

attribution of authorship

protection of works' authenticity

no

With comprehensive community open access

no need for exploitation rights

no need for contractual licensing agreements

But this is momentarily not a realistic perspective

# Is there still a need for copyright related to science and education?

yes

in addition to the protection of moral rights

protection and exceptions for published works from the pre-OA-era (still about 90%)

protection of new commercially produced value-added services

protection and exceptions for special products in the **close access paradigm**

- **multimedia presentation**
- **hypertextification, dossiers**
- **summaries, translations**
- **retrieval and data mining**
- **innovative reviewing models**
- **personal und institutional background information**
- **etc. etc.**

A future market-oriented model for commercial publishing independent from public subsidy?

# Is there still a need for copyright related to science and education?

???

in addition to the  
protection of moral rights

Everything may change in zero  
marginal cost publishing markets



# Fragen – „Antworten“

1. Gibt es eine Krise im kommerziellen Informationsmarkt? ja
2. Ist Open Access Publizieren kompetitiv oder sogar substitutiv zum kommerziellen Publizieren? Ja – aber
3. Werden kommerzielle Verleger Open Access akzeptieren? ja
4. Sind öffentliche Institutionen bereit, kommerzielles Open Access zu finanzieren? Sollten Sie das tun? Ja – aber
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8. Stärkt durchgängiges Open Access die Arbeit der Bibliotheken? Ja – aber
9. Wird noch Urheberrechtsregulierung gebraucht, wenn Open Access das Default- Publikationsmodell ist? Ja – aber

# DIE Fragen

Sind *commons-based* Informationsmärkte sowohl kreativitäts- als auch innovationsfördernd?

ja

Wissensökonomie und Wissensökologie – sind sie miteinander verträglich?

Ja – aber

aber nur in *commons-based* Informationsmärkten

**Vielen Dank für Ihre  
Aufmerksamkeit**

**wenn noch Zeit ist, freue ich  
mich auf eine Diskussion**

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