

# Poisonous Science: the Dark Side of Academic Copyright in the Digital Age

The Trento LawTech Research Group – Penn  
Center for Technology, Innovation and  
Competition LAW & TECHNOLOGY ROUNDTABLE

June, 5 2017

Roberto Caso

University of Trento

Faculty of Law

LawTech Group

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# A previous work



# Work in progress



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File:Sisyphus\\_by\\_von\\_Stuck.jpg](https://it.wikipedia.org/wiki/Sisifo#/media/File:Sisyphus_by_von_Stuck.jpg)

# Science as Market

- Commodification of academic research
- Academic capitalism
- Commercialization of university

# Monsters University: be competitive!

Disney · PIXAR  
**MONSTERS**  
**UNIVERSITY**



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# Max Weber: “Science as Vocation”, 1918

- “Of late we can observe distinctly that the German universities in the broad fields of science develop in the direction of the American system. The large institutes of medicine or natural science are '**state capitalist' enterprises**” [...]
- “Thus the **assistant's position** is often as precarious as is that of any '**quasi-proletarian**' existence and just as precarious as the position of the assistant in the American university”

# Academic copyright: focus on written works

- Written works: papers, articles, essays, books, etc.



# Copyright: two souls

- Right of paternity (attribution)
- “Economic rights”: right of reproduction, right of distribution etc.

Taking seriously the “scope of  
copyright”

Progress of science, progress  
of knowledge?

# Outline

1. The way we were
2. Poisonous science (part I): corrupting right of paternity
3. Poisonous science (part II): corrupting economic rights
4. Conclusions

1

# The Way We Were



# Three factors

- Technology
- Social norms
- Formal law (copyright law)

# E.g.: Newton vs. Leibniz



# Printing press and priority: 1665

PHILOSOPHICAL  
TRANSACTIONS:  
GIVING SOME  
ACCOMPT  
OF THE PRESENT  
Undertakings , Studies , and Labours  
OF THE  
INGENIOUS  
IN MANY  
CONSIDERABLE PARTS  
OF THE  
WORLD

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*Vol I.*

For *Anno 1665*, and *1666*.

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In the *SAVOY*,  
Printed by *T. N.* for *John Martyn* at the Bell, a little with-  
out *Temple-Bar* , and *James Allestry* in *Duck-Lane* ,  
Printers to the *Royal Society*.



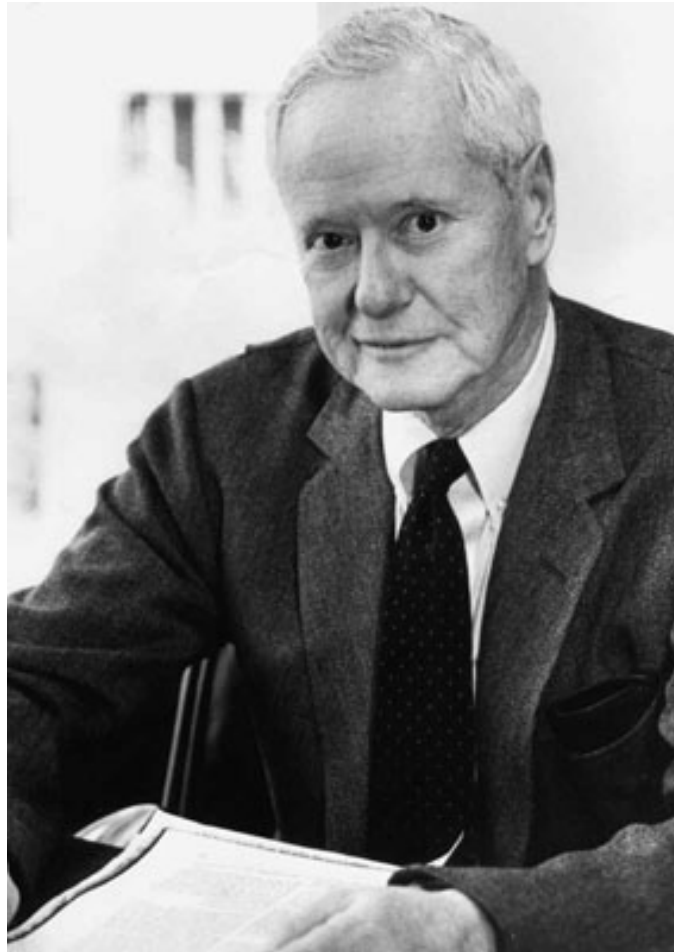
# Allied

- Scientific authors need publishers to distribute their works to the public

# Freedom, authonomy, reputation and responsibility

- A connection between a name and a text
- Reputation (scientific reward)
- Responsibility (e.g., in terms of scientific misconduct, fraud, plagiarism etc.)

# Robert King Merton



# Robert King Merton

- 1938, 1942, CUDOS, authonomy, democracy
- 1957, 1968, 1988, originality, priority, symbolism of “intellectual property”

# Merton: 1988 “Matthew effect II”

- “it is only a seeming paradox that, in science, one's private property is established **by giving its substance away** [...]”
- “That crucial element of free and open communication is what I have described as the norm of “**communism**” in the social institution of science”

# Merton: 1988 “Matthew effect II”

- “Since **positive recognition by peers** is the basic form of extrinsic reward in science, all other extrinsic rewards, such as monetary income from science-connected activities, advancement in the hierarchy of scientists, and enlarged access to human and material scientific capital, derive from it”.

# Tension

- Communism vs originality and priority
- Originality and priority vs humility and modesty
- Norms of science vs copyright law: attribution of ideas (recognition by peers) vs idea/expression dichotomy in copyright law

If I have seen farther, it is by standing on the shoulders  
of giants





# Plagiarsim: e.g. Harvard guide

- “In academic writing, it is considered plagiarism to draw **any idea** or any language from someone else without adequately crediting that source in your paper”

# E.g.: Harvard Plagiarism Policy

- “The College recognizes that the open exchange of ideas plays a vital role in the academic endeavor, as often it is only through discussion with others that one is fully able to process information or to crystallize an elusive concept. Therefore, students generally are encouraged to engage in conversations with their teachers and classmates about their courses, their research, and even their assignments. These kinds of discussions and debates in some ways represent the essence of life in an academic community. And yet, it is important for all scholars to acknowledge clearly when they have relied upon or incorporated the work of others”.

# 2

# Big science era: scientists



# Poisonous science (part I)

## Corrupting right of paternity (attribution)

# Merton “Priorities” 1957

- [...] the **major basis for honesty** in science, there is much in the **social organization of science** that provides a further compelling basis for honest work
- Personal honesty is supported by the **public and testable character of science**.
- Simply because we have focused on the deviant behavior of scientists [fraud, plagiarism etc.], we should not forget how **relatively rare** this is

Is it still true?

# Merton “Priorities” 1957 [!]

- “The indispensable reporting of research can, however, become converted into an itch to publish that, in turn, becomes aggravated by the tendency, in many academic institutions, to transform the **sheer number of publications** into a ritualized measure of scientific or scholarly accomplishment”.



# The rise of “Impact factor” logic



# Sintoms: e.g., plagiarism

- Gaming metrics
- Plagiarism: stealing ideas (peer review); long CV and the number of publications - Mario Biagioli: “impact or perish!”

# 3

# The empire strikes back



# Poisonous science (part II)

## Corrupting economic rights

# Open Access 2001: a new hope?

## Budapest Open Access Initiative

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### Budapest Open Access Initiative

In response to the growing demand to make research free and available to anyone with a computer and an internet connection, a diverse coalition has issued [new guidelines](#) that could usher in huge advances in the sciences, medicine, and health.

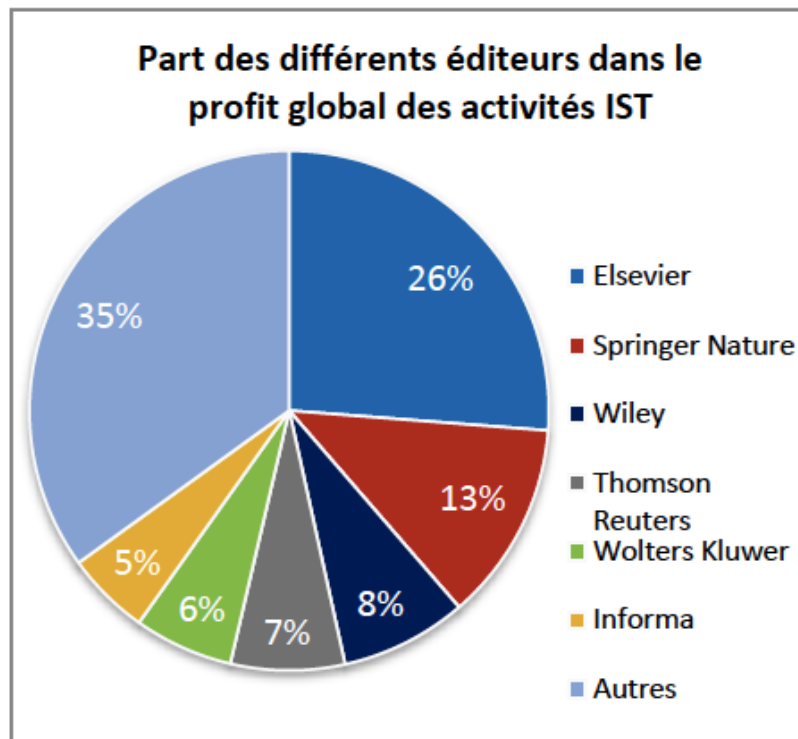
The recommendations were developed by [leaders of the Open Access movement](#), which has worked for the past decade to provide the public with unrestricted, free access to scholarly research—much of which is publicly funded. Making the research publicly available to everyone—free of charge and without most copyright and licensing restrictions—will accelerate scientific research efforts and allow authors to reach a larger number of readers.

The recommendations are the result of a meeting organized by the Open Society Foundations to mark the [tenth anniversary](#) of [Budapest Open Access Initiative](#), which first defined Open Access. The recommendations include the development of Open Access policies in institutions of higher education and in funding agencies, the open licensing of scholarly works, the development of infrastructure such as Open Access repositories and creating standards of professional conduct for Open Access publishing. The recommendations also establish a new goal of achieving Open Access as the default method for distributing new peer-reviewed research in every field and in every country within ten years' time.

[Translations of the recommendations](#) have already been made in several languages, with more to follow.


For more on the recommendations, please see the [press release](#) as well as a [blog post](#) by Peter Suber which provides additional background on the Open Access movement.

# Oligopoly (EPRIST): 2015



“les six premiers éditeurs scientifiques mondiaux réalisent un CA cumulé de 7,5 Milliards d’Euros (en progression organique de 2,9% sur 2014) soit 38% du CA mondial de l’édition scientifique (estimé à 23 000 M€). Mais surtout ces 6 éditeurs captent 65% des profits générés globalement par l’édition scientifique”


# Open Access???

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# New intermediaries

- Google Scholar & Google Books
- Academia.edu, ResearchGate

# Publishing, indexing and evaluation power

- E.g. Scopus (Elsevier)
- SSRN (Elsevier)
- Google Scholar

# Side effects

- Serial crisis
- Risks in terms of preservation
- The death of libraries
- Commercial control of science

# 4

# The last line of defense: Openness



# Openness: what does it mean?

- Right to access
- Right to re-use (copy, modify, distribute, etc.)

# Open Access on the legal forefront

- OA mandates
- More exceptions and limitations (fair use)
- Abuse of copyright (copyright misuse)
- Right to republish

# Useless strategy

- Without a radical change of the system it is impossible to reach real openness



# Openness: what does it mean?

- Democracy, pluralism, transparency
- Science autonomy
- Academic freedom

# Rethinking the evaluation system

# Aaron Swartz “Legacy” 2006



# Legacy, 2006

“So what jobs do leave a real legacy? [...]

But one good source of them is trying to do things that change the system instead of following it. For example, the university system encourages people to become professors who do research in certain areas (and thus many people do this); it discourages people from trying to change the nature of the university itself.

Naturally, doing things like changing the university are much harder than simply becoming yet another professor. But for those who genuinely care about their legacies, it doesn't seem like there's much choice”.

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E-mail:

[roberto.caso@unitn.it](mailto:roberto.caso@unitn.it)

Web:

[http://www.lawtech.jus.unitn.it/index.php/people/  
roberto-caso](http://www.lawtech.jus.unitn.it/index.php/people/roberto-caso)



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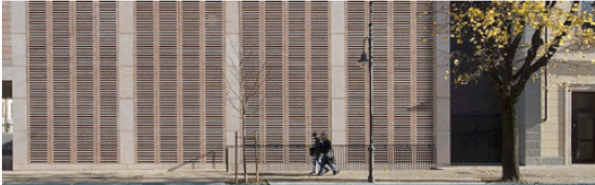
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