Open Science, Open Access, Open Data

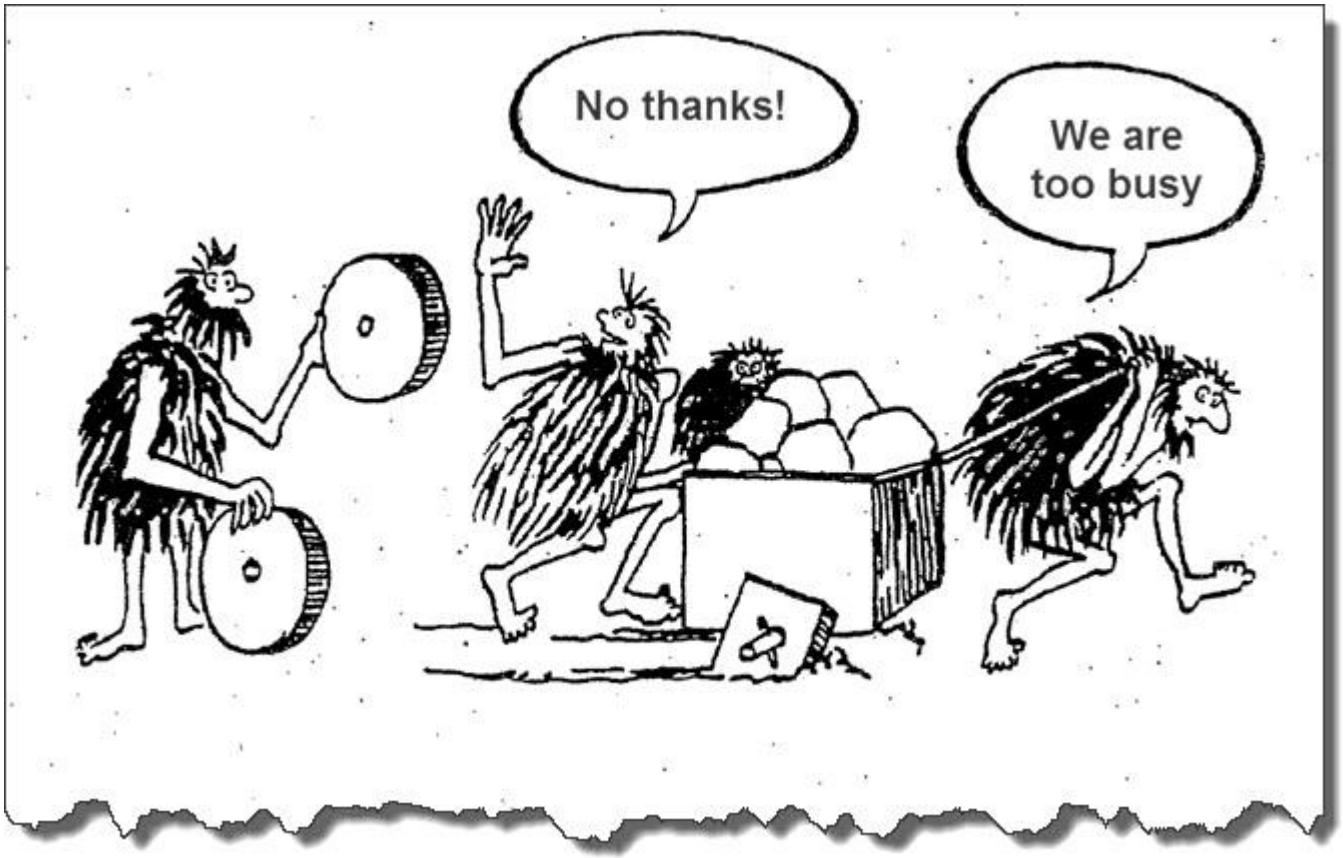
Elena Giglia

Ufficio Accesso aperto – editoria elettronica

Università di Torino

Agenda

Open Data



Cit. da B.Brembs, Making Open the default, Nov 2015

Comunicazione scientifica?

LA NASCITA DEI DIRITTI DELL'UOMO 33

I diritti inglesi, frutto della contrattazione con la monarchia e risultato evidente della sconfitta dell'assolutismo regio, nel corso dei secoli subiscono un processo di specificazione, di consolidamento e di allargamento[58], ma si tratta sempre di diritti di libertà «appannaggio del solo cittadino britannico, acquisiti in circostanze concrete e in rapporto a problemi determinati, di natura politica, religiosa, sociale o economica»[59]. Nascono come libertà concesse dal sovrano (o, meglio, frutto di un patto con il sovrano)[60], vengono ad essere considerati diritti fondamentali e azionabili anche contro i pubblici poteri, ma la loro fondazione è pur sempre particolaristica e consuetudinaria: essi sono validi ed intangibili in quanto goduti "fin da tempi immemorabili" dal popolo inglese[61].

Il riconoscimento di diritti in capo a ciascun uomo, in base alla sola appartenenza al genere umano, si deve al diritto naturale, che universalizza la titolarità dei diritti e conferisce loro un fondamento assoluto, che prescinde da ogni considerazione di tempo e di spazio, per ancorarsi ad una legge naturale assunta come pre-supposto, come data e indiscutibile.

[58] Il progressivo allargamento della sfera dei titolari, così come la graduale "costituzionalizzazione" dei diritti, sono connessi – come sottolinea L. BACCELLI, *Il particolarismo dei diritti. Poteri degli individui e paradossi dell'universalismo*, Carocci, Roma, 1999, p. 25 – alle vicende storico-politiche (quali la lotta fra i baroni e i tentativi "assolutistici" dei Tudor e degli Stuart), ai progressi economico-sociali e anche al pensiero di giuristi (quale, in particolare, Edward Coke).

[59] G. OESTREICH, *Storia dei diritti*, cit., p. 47.

[60] Come ricorda C. H. MCILWAIN, *Constitutionalism: Ancient and Modern*, Cornell University Press, New York, 1947, trad. it. a cura di N. Matteucci, *Costituzionalismo antico e moderno*, il Mulino, Bologna, 1990, Coke, al quale soprattutto si deve l'estensione dei principi della *Magna Charta*, pensava alla libertà o, meglio, alle libertà dei sudditi come protezione dal governo e ragionava in termini di diritti concreti, identificando le concrete libertà con le franchigie (p. 36).

[61] La *Petition of Right* del 1628 parla, ad esempio, di libertà ereditate e il

INTERNET BOOKSHELF

Open access to scientific research: where are we and where are we going?

Facts and figures on the occasion of the 2010 Open Access Week (October 18-24)

E. GIGLIA

University of Turin, Turin, Italy

This contribution is aimed at presenting a sort of "state of the art" of Open Access on the occasion of the 2010 international Open Access Week, to be held from October 18 to October 24. We shall see facts and figures about open archives and the mandates to deposit; about Open Access journals; about impact and citation advantages for the researchers, and about economic sustainability.

Open Access Week, a global event now entering its fourth year, is an opportunity for the academic and research community to continue to learn about the potential benefits of Open Access, to share what they've learned with colleagues, and to help inspire wider participation in helping to make Open Access a new norm in scholarship and research, as Jennifer McLennan from SPARC – Scholarly Publishing and Academic Resources Coalition (http://www.arl.org/sparc/) puts it.[1]

All over the world Universities, libraries, funding agencies, researchers are going to meet and share their best practices and their creative suggestions in order to reach the "Open Access" to scientific information, *i.e.*, with the words of the Berlin Declaration on Open Access to knowledge in the Sciences and Humanities, «a free, irrevocable, worldwide, right of access to, and a license to copy, use, distribute, transmit and display the work publicly».[2] Please keep in mind that Open Access (OA) applies only to scientific journal articles – often referred to as "give away" literature, because authors aren't paid – and that is aimed at maximizing the dissemination of the results of the scientific research, by removing price and permission barriers, leveraging on the means provided by the Internet. The underlying principles are that the results of publicly funded research must be publicly available; knowledge must be free.[3] Free on-line availability for peer-reviewed scholarly articles means a wider access to knowledge, which turns into fostering science and accelerating research worldwide: as the motto of the OA Week states, «Learn. Share. Advance».

In this optic, «Open Access has the potential to maximize research investments, increase the exposure and use of published research, facilitate the ability to conduct research across available literature, and enhance the overall advancement of scholarship» according again to McLennan.[4] Let's try to confirm this statement in facts and figures, reminding yet that each scientific community has its own way to OA, depending on its communication behaviour and specific channels, so we can't reduce this complexity in few numbers.

We have already explored the basic concepts of the OA world some issues ago,[5] so we won't repeat them. After 5 years, we are now trying to recall the logic, and to stress the main achievements and the ongoing projects. As preliminary reference tools, if you want to learn more on OA, precious starting point collecting principles, instruments, factual lists

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Comunicazione scientifica è …

Accesso

GESTIONE DEI DIRITTI (autori, lettori, editori)

CONSERVAZIONE

Produzione

Economia (e profitti)

Costi (reali e di mercato – «anelastico»)

Nuovi modelli (e loro sostenibilità)

Tecnologia

Canali (monografie, riviste…)

VALUTAZIONE DELLA RICERCA

Definizioni

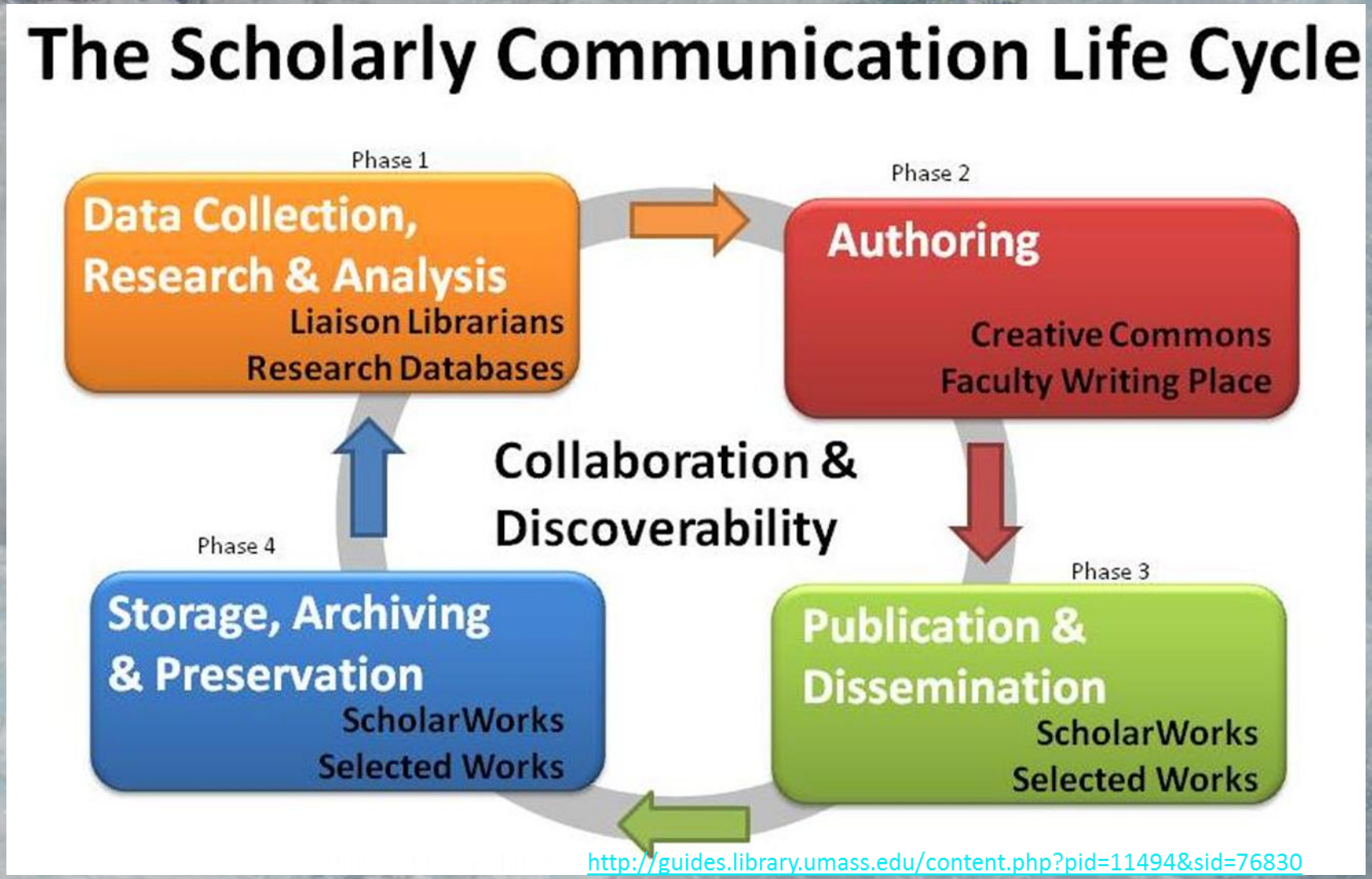
Scholarly communication is the **process** of academics, scholars and researchers **sharing** and **publishing** their research findings so that they are **available** to the wider academic community (such as university academics) and **beyond** [Wikipedia]

Scholarly communications is the **creation**, transformation, **dissemination** and **preservation** of **knowledge** related to teaching, research and scholarly endeavors [Wikipedia]

[It's] a **metaphorical conversation** […] for **scholarship exists only as it is shared** and circulated, only as it is **open to new and diverging voices**

[J.Willinski, The access principle, MIT 2005 e 2009]

La comunicazione scientifica è un processo



http://guides.library.umass.edu/content.php?pid=11494&sid=76830

Open Access nel ciclo della comunicazione scientifica

Il meccanismo nelle riviste

Submission

Peer review

Acceptance/ rejection

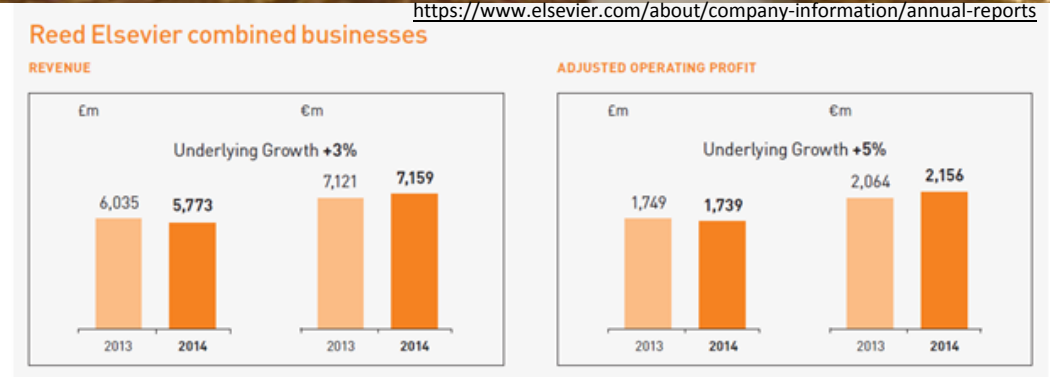
Publication

Non c'è compenso economico

Ritorno atteso: reputazione, citazioni

Parliamo di soldi

https://www.elsevier.com/about/company-information/annual-reports



WILEY

http://eit.wiley.com/WileyCDA/Section/id-370237.html

For the Years Ended April 30,

Dollars in millions (except per share data)	2015	2014	2013	2012	2011
Revenue	**$1,822.4**	$1,775.2	$1,760.8	$1,782.7	$1,742.6
Operating Income (a-c)	**237.7**	206.7	199.4	280.4	248.1
Net Income (a-d)	**176.9**	160.5	144.2	212.7	171.9
Working Capital (e)	**(62.8)**	60.1	(32.2)	(66.3)	(228.9)
Deferred Revenue in Working Capital (e)	**(372.1)**	(385.7)	(363.0)	(342.0)	(321.4)
Total Assets	**3,004.2**	3,077.4	2,806.4	2,532.9	2,430.1
Long-Term Debt	**650.1**	700.1	673.0	475.0	330.5

http://www.springer.com/gp/about-springer/company-information

Financial performance

Springer Science+Business Media S.A. achieved sales of € 981.1 m in FY 2012 which is growth of approximately 2.9 % from FY 2011 (adjusted for acquisitions/divestments and for the changes in the underlying currency exchange rates). FY 2012 adjusted EBITDA is € 342.8 m which is growth of approximately 5 % from FY 2011 (also adjusted for acquisitions/divestments and for the changes in the underlying currency exchange rates).

The Economist

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Academic publishing

Of goats and headaches

One of the best media businesses is also one of the most resented

May 26th 2011 | from the print edition

Like 765 Tweet 467

HOW much would you pay for an annual subscription to *Small Ruminant Research*, *Queueing Systems* or *Headache*? University librarians pay rather a lot. In Britain, 65% of the money spent on content in academic libraries goes on journals, up from a little more than half ten years ago. With budgets tight, librarians are trying to resist price increases. But Derk Haank, the chief executive of Springer, a big publisher, is firm: "We have to make a living as well."

Something to chew on

And what a living it is. Academic journals generally get their articles for nothing and may pay little to editors and peer reviewers. They sell to the very universities that provide that cheap labour. As other media falter, academic publishers have soared. Elsevier, the biggest publisher of journals with almost 2,000 titles, cruised through the recession. Last year it made £724m ($1.1 billion) on revenues of £2 billion—an operating-profit margin of 36%.

Academic publishers have jumped deftly from paper to the internet. For more than a decade the dominant model has been the "big deal". Publishers sell access to large bundles of electronic journals for a price based on what colleges used to pay for paper

Parliamo di soldi / 2

Journal Cost-Effectiveness 2013

Use this search engine to find internationally-published journals and rank them by price per article or citation. Here are some summary statistics for this edition. If you wish, you can also download an Excel spreadsheet that contains all of our data. You can find explanations of our data sources and methods at this link.

Title:
Publisher: Emerald
ISSN:
Search

Search tips:
? for one unknown character
* for zero or more unknown characters
quotes for "exact phrase"
^ = Not
blank field = all

Restrict your search to the following subject areas (unchecking all boxes searches all journals):

- Agriculture
- Biology
- Business
- Chemistry
- Computer Science
- Economics
- Education
- Engineering
- Geology
- History
- Humanities
- Law
- Mathematics
- Medicine
- Physics
- Psychology
- Social Science

Sort results by:

- Title
- Publisher
- ISSN
- Year First Published
- Price Per Article
- Price Per Citation
- Composite Price Index
- Relative Price Index

Order results:

- Ascending
- Descending

Limit to:

- Good value
- Medium value
- Bad value

Format results as tab-delimited text for saving or copying to Excel. Do not paste directly into wordpad or excel. Copying and then pasting into notepad, saving the page as a text file, or using "paste special" in wordpad, should work. You can download the full database in excel format, including past years.

Search

http://www.journalprices.com/

Search Results

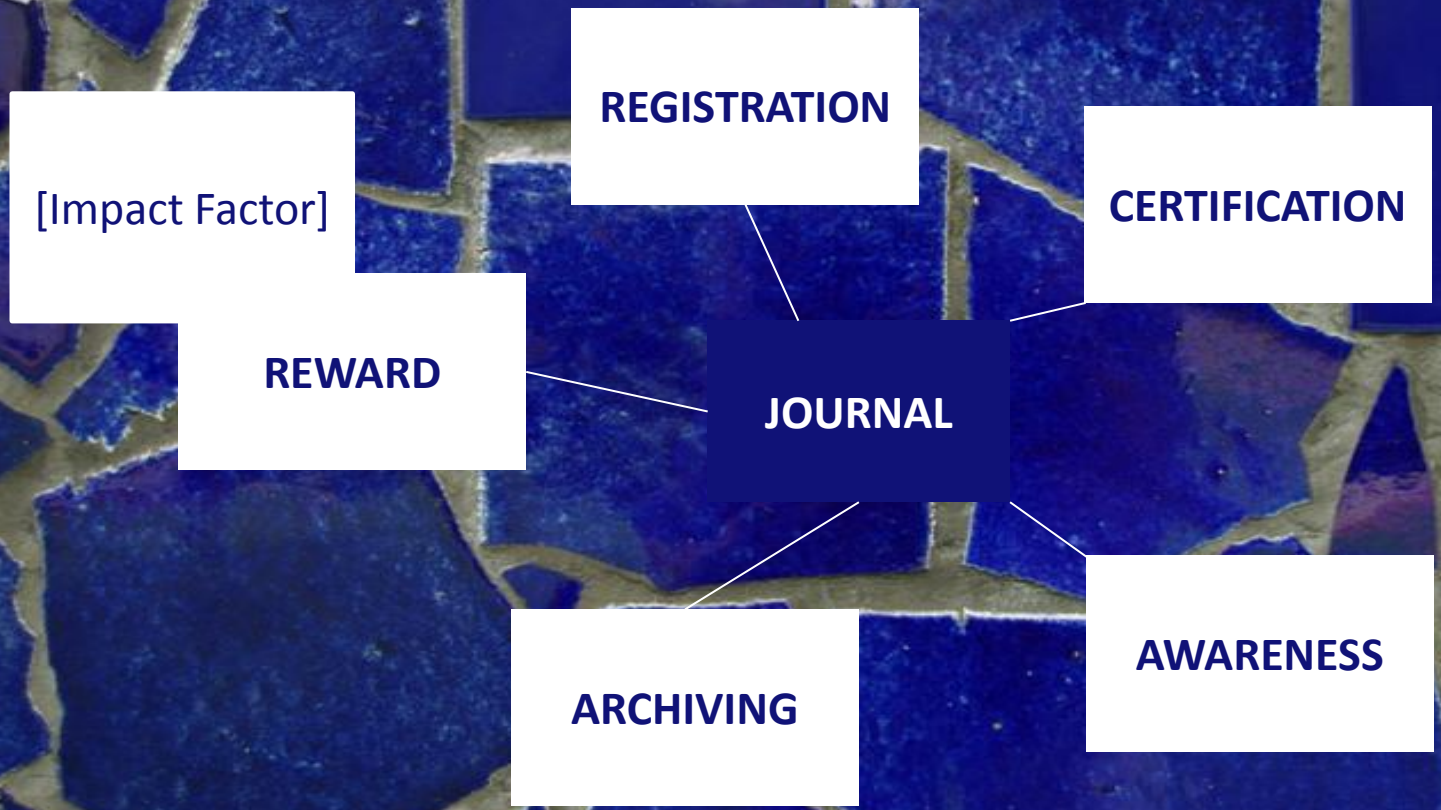
Back to Search

1. Title: Journal of Service Management
Publisher: Emerald
ISSN: 1757-5818
Subject: Business
Profit Status: For-Profit
Year First Published:
Price per article: 1430.74
Price per citation: 1755.9
Composite Price Index: 1585
Relative Price Index 143.88

2. Title: Information Technology & People
Publisher: Emerald
ISSN: 0959-3845
Subject: Business
Profit Status: For-Profit
Year First Published:
Price per article: 964.14
Price per citation: 489.05
Composite Price Index: 686.67
Relative Price Index 62.34

3. Title: Career Development International
Publisher: Emerald
ISSN: 1362-0436
Subject: Business
Profit Status: For-Profit
Year First Published:
Price per article: 914.92
Price per citation: 370.2
Composite Price Index: 581.98
Relative Price Index 52.83

Comunicazione scientifica: le funzioni



Rosendaal H. –Geurts P. Forces and functions in scientific communication:an analysis of their interplay, CRISP 1997

Gli attori

Web

Ricercatori
[autori e lettori]

Finanziatori

Valutatori

Editori

Biblioteche

Lettori

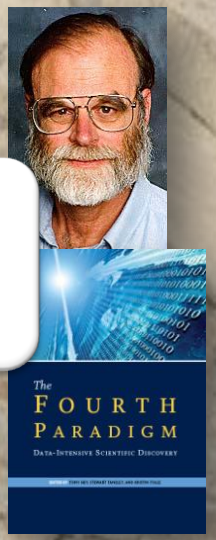
Il contesto

Knowledge economy

Informazione è strategica

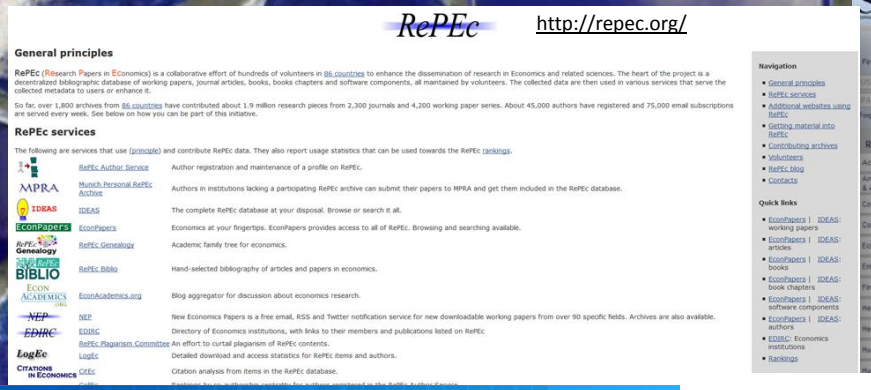
ISI (Impact Factor)= Thomson Reuters

Data-intensive science



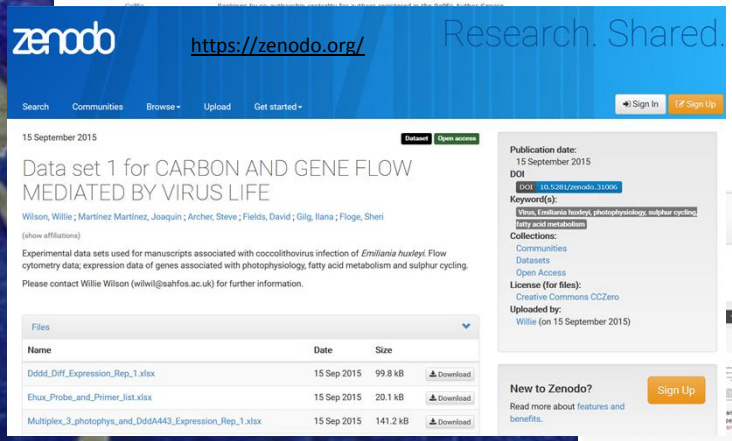
Academic social networks

Comunicazione scientifica: le funzioni



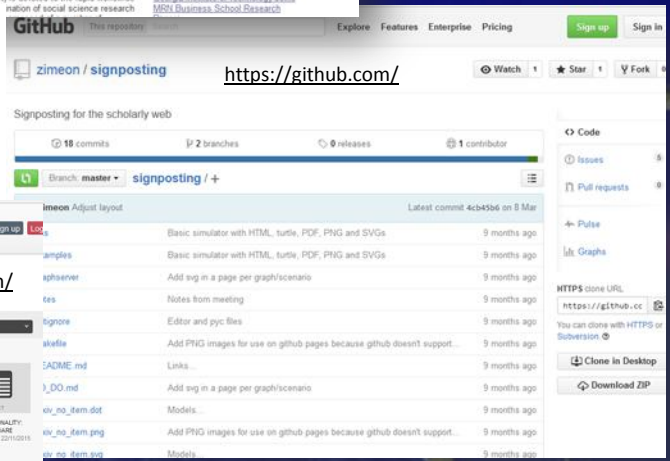
http://repec.org/

http://www.ssrn.com/en/

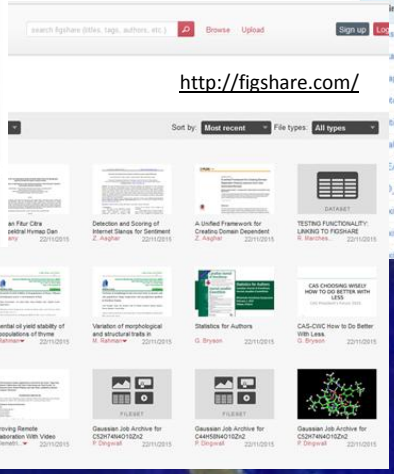


https://zenodo.org/

REGISTRATION



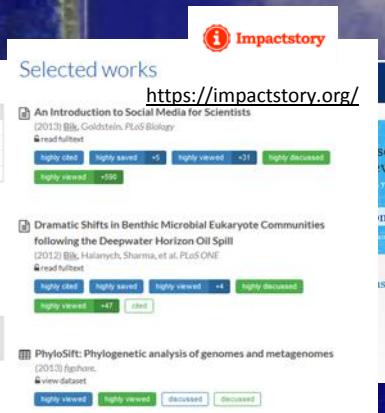
https://github.com/



http://figshare.com/

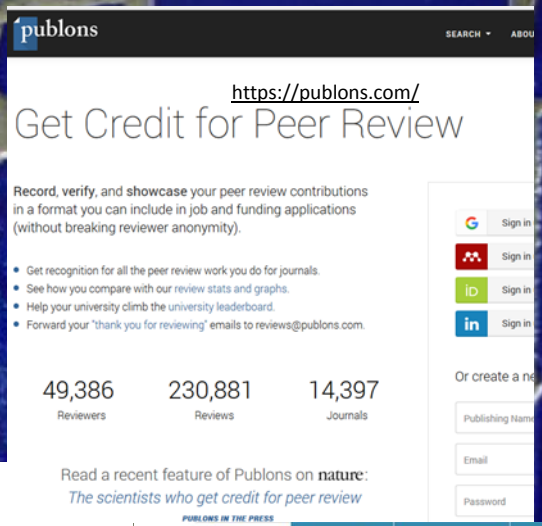
Comunicazione scientifica: le funzioni

http://lagotto.io/plos/#static-content-wrap



https://impactstory.org/

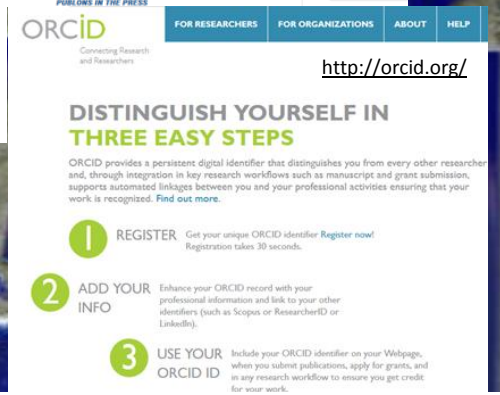
https://www.peerageofscience.org/



https://publons.com/

REWARD

CERTIFICATION



http://orcid.org/

AWARENESS

ARCHIVING

http://www.altmetric.com/

twitter

Tweets can predict highly cited articles within the first 3 days of article publication. Social media activity either increases citations or reflects the underlying qualities of the article that also predict citations […]

G. Eysenbach, Can Tweets Predict Citations? Metrics of Social Impact Based on Twitter and Correlation with Traditional Metrics of Scientific Impact, J Med Internet Res 2011;13(4):e123

101 Innovations in Scholarly Communication

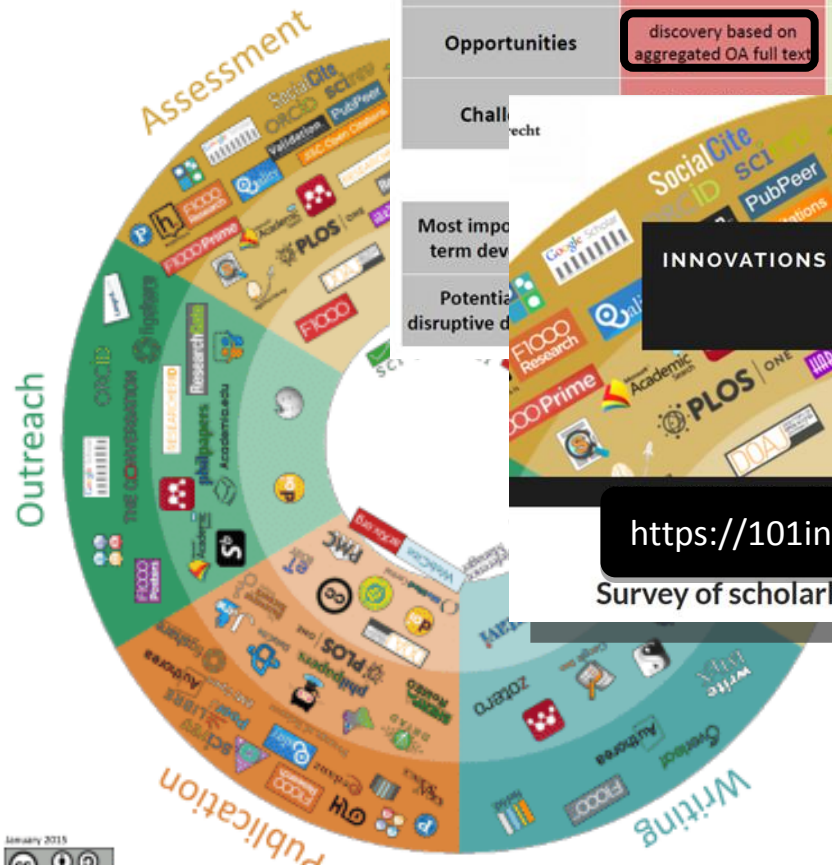
Jeroen Bosman @jero
Utrecht University Library

Most important developments in 6 research workflow phases

Science is in transition. This poste
phase of a project aiming to char
communication flows from evolut

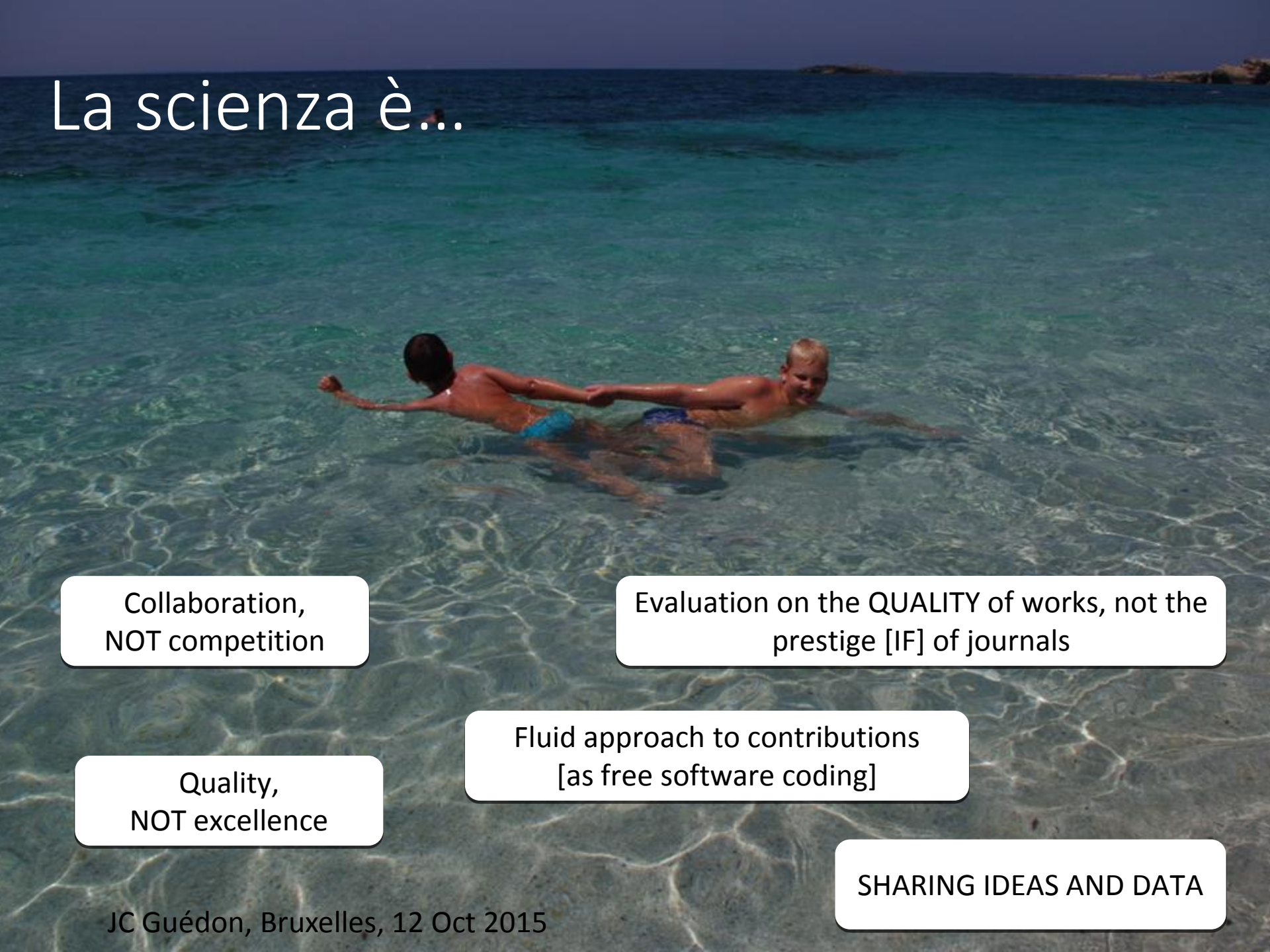
101 Innovative tools and si
(< 2

	Discovery	Analysis	Writing	Publication	Outreach	Assessment
Trends	social discovery tools	datadriven & crowdsourced science	collaborative online writing	Open Access & data publication	scholarly social media	article level (alt)metrics
Expectations	growing importance of data discovery	more online analysis tools	more integration with publication & assessment tools	more use of "publish first, judge later"	use of altmetrics for monitoring outreach	more open and post-publication peer review
Uncertainties	support for full-text search and text mining	willingness to share in analysis phase	acceptance of collaborative online writing	effect of journal/publisher status	requirements of funders & institutions	who pays for costly qualitative assessment?
Opportunities	discovery based on aggregated OA full text	open labnotes	semantic tagging while writing/citing	reader-side paper formatting	using repositories for institutional visibility	using author-, publication- and affiliation-IDs
Chall				globalization of	making outreach a two-way discussion	quality of measuring tools
Most impo term dev					more & better connected researcher profiles	importance of societal relevance + non-publication contributions
Potentia disruptive d				itional	public access to research findings, also for agenda setting	moving away from simple quantitative indicators



http://figshare.com/articles/101_Innovations_in_Scholarly_Communication_the_Changing_Research_Workflow/1286826

La scienza è…



Collaboration,
NOT competition

Evaluation on the QUALITY of works, not the prestige [IF] of journals

Fluid approach to contributions
[as free software coding]

Quality,
NOT excellence

SHARING IDEAS AND DATA

JC Guédon, Bruxelles, 12 Oct 2015

Zen scholarly communication?

Scholarly communication is distributed process of knowledge creation that requires a great conversation.

Much of scientific work is made up of collaboration rather than competition. Science exhibits the nature of networks, not that of Olympic games. Concern of quality has been replaced by an obsession for competition

Imagine writing the history of print from the perspective of the scriptoria…

1) **What will it be like?** The question can be framed in two ways:

The first is the scriptorium way: how to adapt the present to the (yet unknown) future. Open Access debate has followed this path.

The second way, more fundamentally, strongly foregrounds the notion of "scientific communication": **WHAT DOES IT NEED TO WORK BEST?**

- **a set of useful, credible, peers;**
- **"crystals" of knowledge**

2) **Who will control it?**

SKILLS AND SERVICES NEEDED FOR THE GREAT CONVERSATION SHOULD SERVE ITS OBJECTIVES, NOT THE REVERSE.

Gustavo Rondina They also get to work as bartenders too. For free, rejoicing only at the pride of doing services in favor of the alcoholic community.
Like · Reply · 9 · November 7 at 8:50pm

Amanda M. Dutton As they walk out the door their supervising Dean greets them saying, "Good job. How far are you to the next bar?"

Joe Fruscione And Reviewer #3 encourages them to revise & resubmit their drink orders, while Reviewer #2 throws them out of the joint.
Like · Reply · 81 · November 7 at 5:43pm

Michael Dow And a third academic pays $1800 to look inside the bar.
Like · Reply · 194 · November 7 at 5:40pm
1 Reply

Shit Academics Say
November 7 at 5:34pm ·
Like Page

Two academics walk into a bar. They bring their own drinks, pay $5000, and leave feeling proud and ashamed. It's a publishing metaphor.

Like Comment Share

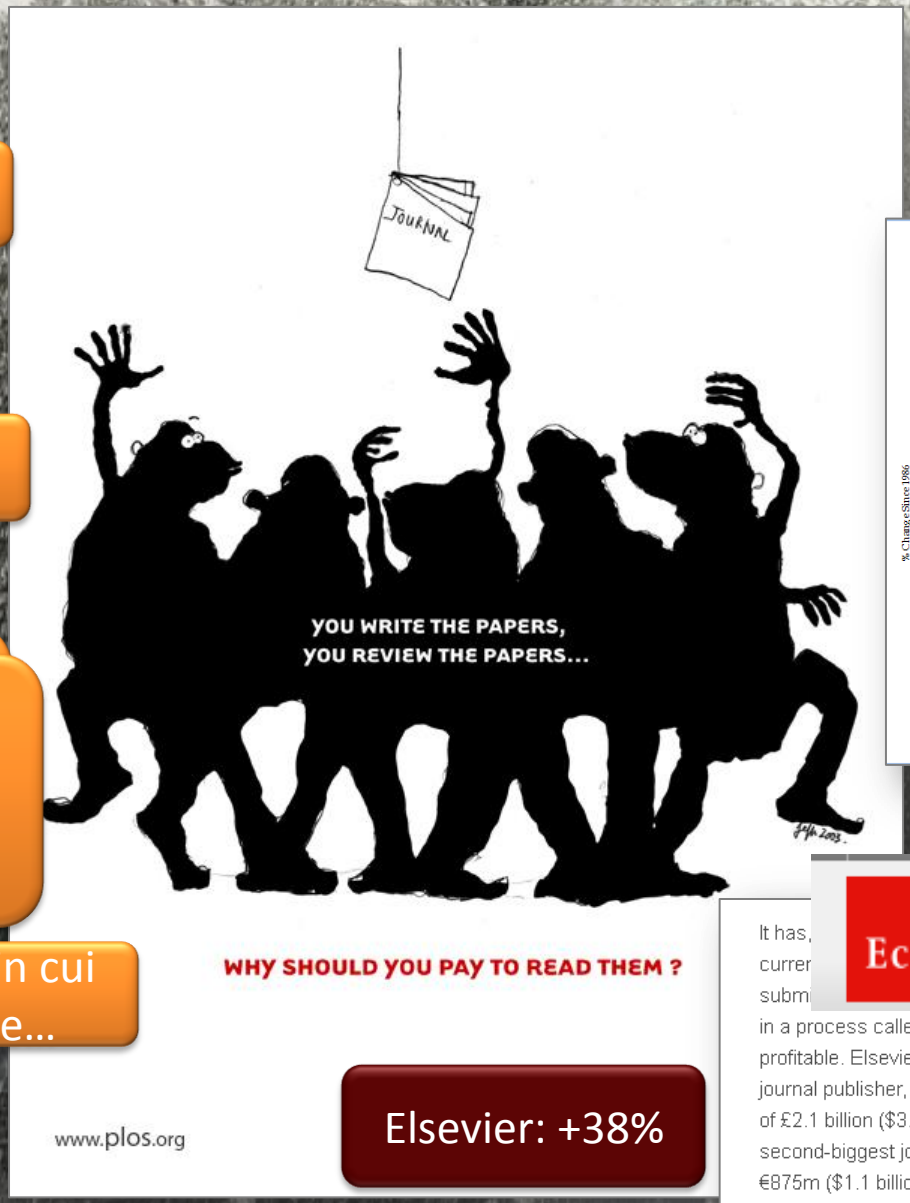
Funzionale???

Il paradosso

1. stipendio

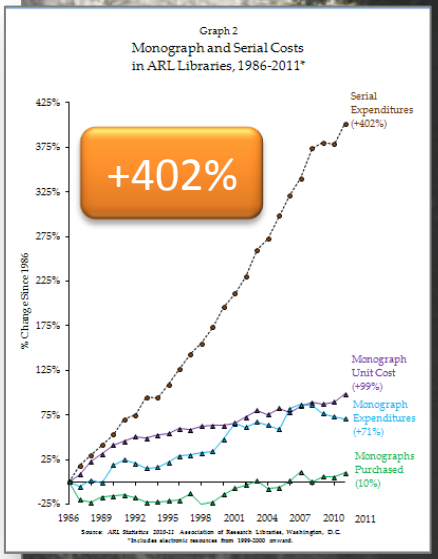
tagli ai budget=
minore possibilità
• di leggere
• di essere letti

… nell'era del web in cui tutto è disponibile…



Elsevier: +38%

ARL Statistics



+402%

Free for all, 4 may 2013

The Economist

It has, ood bash. The curren ther people's work, subm thing by third parties in a process called peer review, has been immensely profitable. Elsevier, a Dutch firm that is the world's biggest journal publisher, had a margin last year of 38% on revenues of £2.1 billion ($3.2 billion). Springer, a German firm that is the second-biggest journal publisher, made 36% on sales of €875m ($1.1 billion) in 2011 (the most recent year for which figures are available). Such firms are now, though, faced with cor


…ritrovare
maggiore
equilibrio nella
comunicazione
scientifica

Proviamo a riflettere

…parliamo di peer review?

Retraction Watch

Tracking retract process

Search Results

"When we wonder what it all means": Stapel retraction count rises to 49

with 6 comments

Diederik Stapel is up to 49 retractions.

After three retractions, five expressions of concern, cardiologist Matsubara resigns post

with 2 comments

Hiroaki Matsubara, a leading Japanese cardiology researcher who has had three papers retracted and another five subject to expressions of concern, has resigned from Kyoto Prefectural University, according to local media.

Mainichi Shimbun reports — according to our roughest of (Google) translations — that Kyoto Prefectural University accepted Matsubara's That investigation — which the university had to problems with 27 studies.

As we noted last March:

> Matsubara is a big name in cardiology, trials. Twenty one of his papers have b

One of Matsubara's retractions was for duplicati problems.

Resveratrol researcher Das in video: Yes, I manipulated images, but only because the journals asked me to

with 82 comments

Dipak Das, who until earlier this year ran a high-profile cardiovascular research center at the University of Connecticut, has recorded a slick looking video defense against allegations that he cooked data and manipulated images in scores of published studies, 12 of which have been retracted to date.

Das, via UConn

Das, who was hit with a 60,000 pages of allegations stemming from a three-year investigation by the university, spends the bulk of the documentary-style interview — which is available on YouTube — talking about the wonders of resveretrol. But he gets into the misconduct charges at about the 15-minute mark.

Read the rest of this entry »

Written by amarcus41
June 18, 2012 at 3:15 pm

Posted in dipak das

Retraction count for resveratrol researcher Dipak Das rises to 12

with 7 comments

Dipak Das, the UConn researcher whom the university earlier ths year found to have fabricated or falsified data more than 100 times, has four more retractions to his name.

Das, via UConn

The notices appear in the June 1, 2012 issue of the *American Journal of Physiology: Heart and Circulatory Physiology*, and suggest that Das was not all that cooperative: Read the rest of this entry »

Retraction Watch

Tracking retracti process

Does scientific misconduct cause patient harm? The case of Joachim Boldt

with 23 comments

If you wanted to minimize the real-life effects of misconduct, you might note that some of the retractions we cover are in tiny obscure journals hardly anyone reads. But a new meta-analysis and editorial in JAMA today suggests — as a study by Grant Steen did a few years ago — that the risk of patient harm due to scientific misconduct is not just theoretical.

As the editorialists note, hydroxyethyl starches (HES) are "synthetic fluid products used commonly in clinical practice worldwide:"

> Synthetic colloids received market approval in the 1960s without evaluation of their efficacy and safety in large phase 3 clinical trials. Subsequent studies reported mixed evidence on their benefits and harms.

There has been controversy over the use of HES for decades, with the most recent high-level review showing "no significant mortality increase." But one of the reasons for that review — by the prestigious Cochrane Collaboration — was to see if the dozens of now-retracted studies by Joachim Boldt had an effect on the overall evidence for HES. Boldt's retractions resulted from a lack of evidence of IRB approval, as well as the likelihood of faked data.

An internal investigation found no evidence of harm to the patients Boldt treated, and the the Cochrane review found "no change in the findings related to the inclusion or exclusion of the studies by Boldt et al.," according to the editorial. But the new meta-analysis found something different:

> After exclusion of the studies by Boldt et al, Zarychanski et al found that hydroxyethyl starch was associated with a significantly increased risk of mortality (risk ratio [RR], 1.09; 95% CI, 1.02–1.17) and renal failure (RR, 1.27; 95% CI 1.09–1.47).

In other words, there was an increased risk of death and kidney failure among those given HES:

> The report … misconduc… have concl… these stud… demonstra… new syste… ect of scientific misconduct… ght reasonably have concluded… vses in which these studies… also demonstrate… elines in light of new systematic…

ha enormi limiti anche nelle riviste tradizionali

Share this: Twitter 46 Facebook 27 Digg Reddit Email StumbleUpon

http://retractionwatch.wordpress.com/

Parliamo di peer review? / 2

Scientific misconduct = few bad apples [??????]

elemento comune: intento di ingannare

- ✓ plagio (non distorce i risultati ma rende inefficace la ricerca)
- ✓ fabbricazione
- ✓ falsificazione

  - dati pubblicati selettivamente solo per supportare l'ipotesi di base
  - dati "gonfiati"
  - dati studiati a posteriori per costruire ipotesi plausibile

- 2% ammette di aver fabbricato i dati
- 34% ammette di aver falsificato
- 72% ha visto colleghi falsificare
- 81% disposto a falsificare per assicurarsi un grant

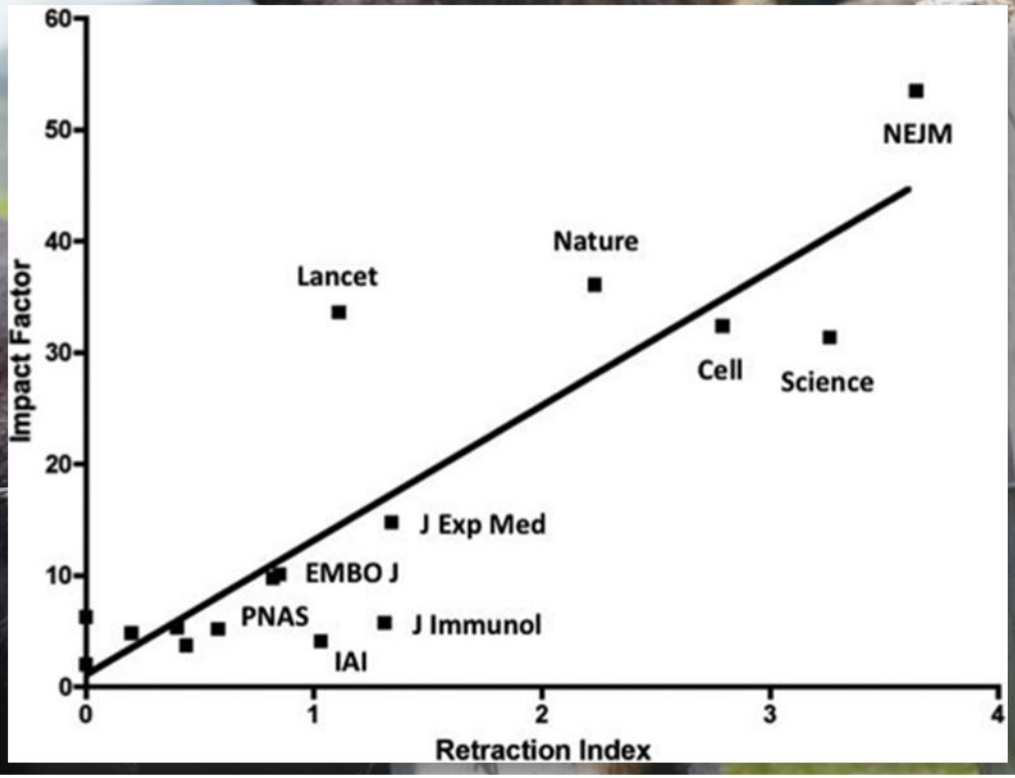
D. Fanelli, How Many Scientists Fabricate and Falsify Research? A Systematic Review and Meta-Analysis of Survey Data
PLoS ONE, 2009, 4(5): e5738.

Parliamo di peer review? / 3

- 2.047 articoli indicizzati in PubMed ritrattati al 3 maggio 2012
- 21.3% per errore
- 67.4% per “scientific misconduct”, di cui
  - ✓43.4% frode,
  - ✓14.2% duplicazione,
  - ✓ 9.8% plagio
- la percentuale degli articoli ritrattati è cresciuta di 10 volte dal 1975

FC. Fang et al., Misconduct accounts for the majority of retracted scientific publications, PNAS, 2012, 109 (42), pp. 17028-17033

Parliamo di peer review? 7 4



Forte correlazione fra numero di ritrattazioni e Impact factor della rivista

FC. Fang, A. Casadevall, Retracted Science and the Retraction Index, Infection and Immunity, 2011; 79(10): 3855–3859

Parliamo di peer review? / 5

Table 3. Most cited retracted articles

First author	Journal	Year published	Year retracted	Times cited*	Reason for retraction
Wakefield	*Lancet*	1998	2004; 2010	758	Fraud
Reyes	*Blood*	2001	2009	740	Error
Fukuhara	*Science*	2005	2007	686	Error
Nakao	*Lancet*	2003	2009	626	Fraud
Chang	*Science*	2001	2006	512	Error
Kugler	*Nature Medicine*	2000	2003	494	Fraud
Rubio	*Cancer Research*	2005	2010	457	Error
Gowen	*Science*	1998	2003	395	Fraud
Makarova	*Nature*	2001	2006	375	Error
Hwang	*Science*	2004	2006	368	Fraud
Potti	*The New England Journal of Medicine*	2006	2011	361	Fraud
Brugger	*The New England Journal of Medicine*	1995	2001	336	Fraud
Van Parijs	*Immunity*	1999	2009	330	Fraud
Potti	*Nature Medicine*	2006	2011	328	Fraud
Schön	*Science*	2000	2002	297	Fraud
Chiu	*Nature*	2005	2010	281	Error
Cooper	*Science*	1997	2005	264	Fraud
Le Page	*Cell*	2000	2005	262	Error
Kawasaki	*Nature*	2004	2006	243	Fraud
Hwang	*Science*	2005	2006	234	Error

*As of June 22, 2012.

Parliamo di peer review? / 6

- **studi su farmaci**: 742 ritrattazioni nel 2010-2011
- 102 esaminati
- **72%** per scientific misconduct
- **28%** per errore
- «We found that a **greater proportion** of drug therapy articles were retracted for reasons of misconduct and fraud **compared with other biomedical studies**.

It is important for health care **practitioners to monitor the literature for retractions** so that recommendations for drug therapy and **patient management may be modified accordingly**»

JC. Samp et al., Retracted publications in the drug literature, Pharmacotherapy. 2012 Jul;32(7):586-95.

Parliamo di peer review? / 7


Journal of
MEDICAL ETHICS
An international peer-reviewed journal for health professionals and researchers in medical ethics
Online First | Current issue | Archive | About the journal | Submi
Online First | Current issue | Archive | Supplements | eLetters | Topic collections | Blog
Home > Volume 37, Issue 8 > Article
J Med Ethics 2011;37:498-503 doi:10.1136/jme.2010.041830
Research ethics
Paper
Misinformation in the medical literature: What role do error and fraud play?
R Grant Steen
Correspondence to
Dr R Grant Steen, Medical Communications Consultants, LLC, 103 Van Doren Place, Chapel Hill, NC 27517, USA; g_steen_medicc@yahoo.com

fra il 2000 e il 2010 stimati 80.000 pazienti in clinical trials su studi poi ritrattati

R. Steen, Misinformation in the medical literature: What role do error and fraud play?, J Med Ethics 2011;37:498-503

Parliamo di Impact Factor? / 1

$$\text{IF anno X} = \frac{\text{citazioni nell'anno X ad articoli usciti in anni X-1 e X-2}}{\text{totale articoli «citabili» pubblicati negli anni X-1 e X-2}}$$

Parliamo di Impact factor / 2

Times Higher Education, 5 Nov 2015

THE WORLD UNIVERSITY RANKINGS

PROFESSIONAL JOBS RANKINGS STUDENT

Journal impact factors 'no longer credible'

The measure of scholarly impact is now being manipulated so much that it has ceased to be meaningful, editorial claims

November 5, 2015

By David Matthews Twitter: @DavidMJourno

Catriona MacCallum and 1 other Retweeted

Max Planck Society @maxplanckpress · Nov 15

"How much has your research changed the world -- that's **impact**! And **Impact** Factors have nothing to do with that." @DavidSweeneyNPR #**OpenCon**

81 48

OAI9 and 22 others follow

J@n Velterop @Villavelius · Nov 14

@barendmons: "The usefulness of an article at the bench, in the field, is inversely related to the **impact** factor of the journal." #**opencon**

Erin McKiernan @emckiernan13 · Nov 14

#**opencon** @brembs: Higher **impact** factor --> higher retraction rate. "We're selecting for people who publish unreliable research."

13 12

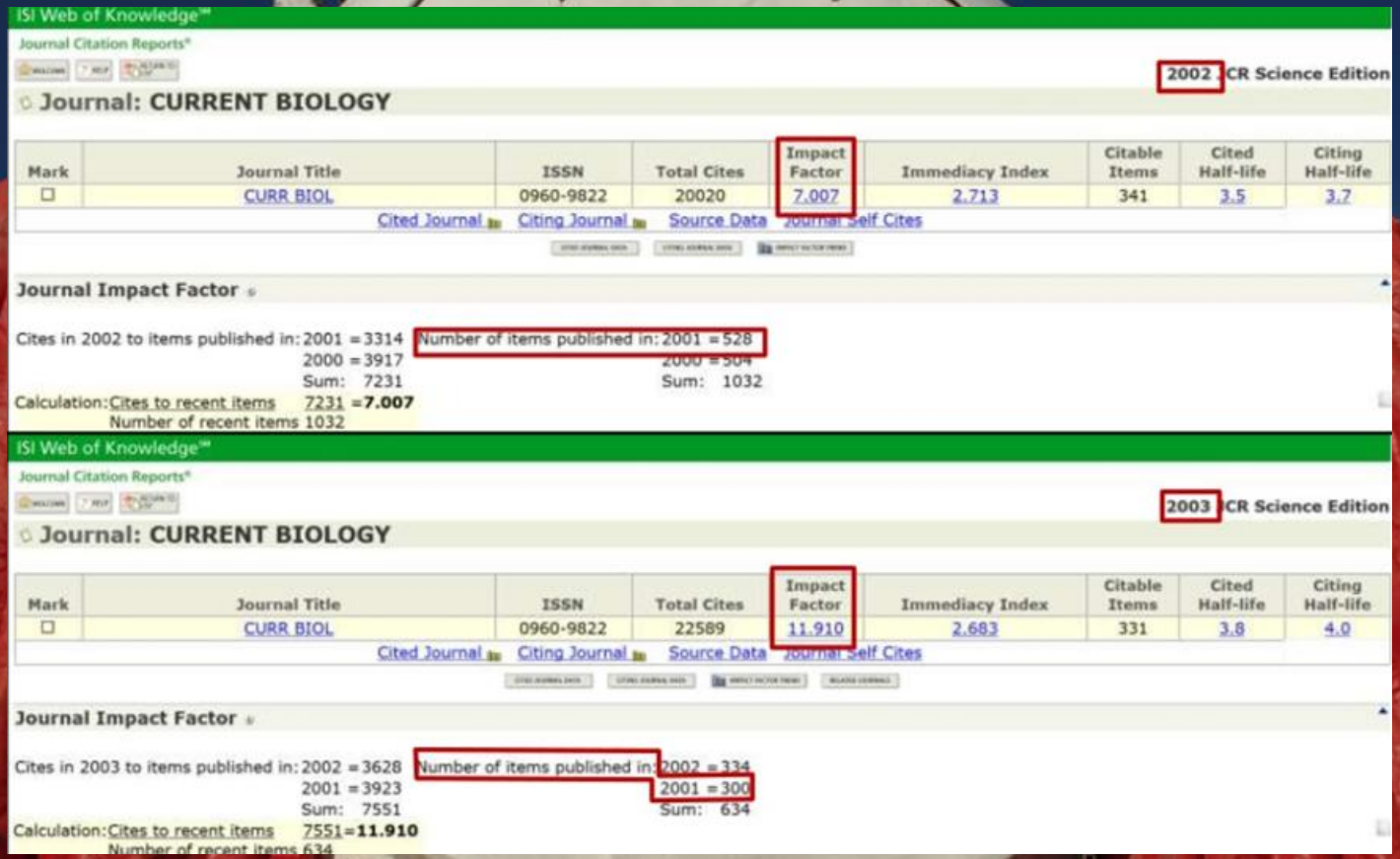
hjoseph Retweeted

Erin McKiernan @emckiernan13 · Nov 14

#**opencon** @brembs says, "the **impact** factor is a made up number" and asks, "is journal prestige like astrology?"

7 10

Impact factor / 3



ISI Web of Knowledge℠

Journal Citation Reports®

2002 JCR Science Edition

Journal: CURRENT BIOLOGY

Mark	Journal Title	ISSN	Total Cites	Impact Factor	Immediacy Index	Citable Items	Cited Half-life	Citing Half-life
☐	CURR BIOL	0960-9822	20020	7.007	2.713	341	3.5	3.7

Cited Journal | Citing Journal | Source Data | Journal Self Cites

Journal Impact Factor

Cites in 2002 to items published in: 2001 = 3314, 2000 = 3917, Sum: 7231

Number of items published in: 2001 = 528, 2000 = 504, Sum: 1032

Calculation: Cites to recent items 7231 = **7.007**

Number of recent items 1032

ISI Web of Knowledge℠

Journal Citation Reports®

2003 JCR Science Edition

Journal: CURRENT BIOLOGY

Mark	Journal Title	ISSN	Total Cites	Impact Factor	Immediacy Index	Citable Items	Cited Half-life	Citing Half-life
☐	CURR BIOL	0960-9822	22589	11.910	2.683	331	3.8	4.0

Cited Journal | Citing Journal | Source Data | Journal Self Cites

Journal Impact Factor

Cites in 2003 to items published in: 2002 = 3628, 2001 = 3923, Sum: 7551

Number of items published in: 2002 = 334, 2001 = 300, Sum: 634

Calculation: Cites to recent items 7551 = **11.910**

Number of recent items 634

Brembs, Digital Scholarship and Open Science need a digital infrastructure , Nov. 2015

Parliamo di Impact Factor? / 4

Archivum Immunologiae et Therapiae Experimentalis
August 2008, Volume 56, Issue 4, pp 223-226

The top-ten in journal impact factor manipulation

Matthew E. Falagas MD, MSc, DSc., Vangelis G. Alexiou

1. Requiring revision of the manuscript references section and inclusion of articles published in the editor's journal or affiliate journals
2. Publishing summaries of articles with relevant citations to them (usually in the form of "what was published in the journal last year")
3. Inflating self-citation through editorials and readers' comments on published articles
4. Publishing articles that add citations to the nominator but which are not counted as "citable"
5. Publishing a larger percentage of review articles over less-cited articles, including original research and, especially, case reports
6. Rejecting negative studies, regardless of their quality
7. Rejecting confirmatory studies
8. Favoring the acceptance of articles originating from large and scientifically active research groups as well as articles with a large number of authors
9. Attracting the work of renowned scientists and leaders of research regardless of the real quality
10. Publishing mainly popular science articles that deal with "hot" topics

PLOS | MEDICINE

OPEN ACCESS

EDITORIAL

The Impact Factor Game

The PLoS Medicine Editors

M .Falagas, V.Alexiou V The top-ten in journal impact factor manipulation. Archivum Immunologiae et Therapiae Experimentalis 2008, 56: 223–226

Verità > pubblicabilità

A Disconnect Between What Is Good for Scientists and What Is Good for Science

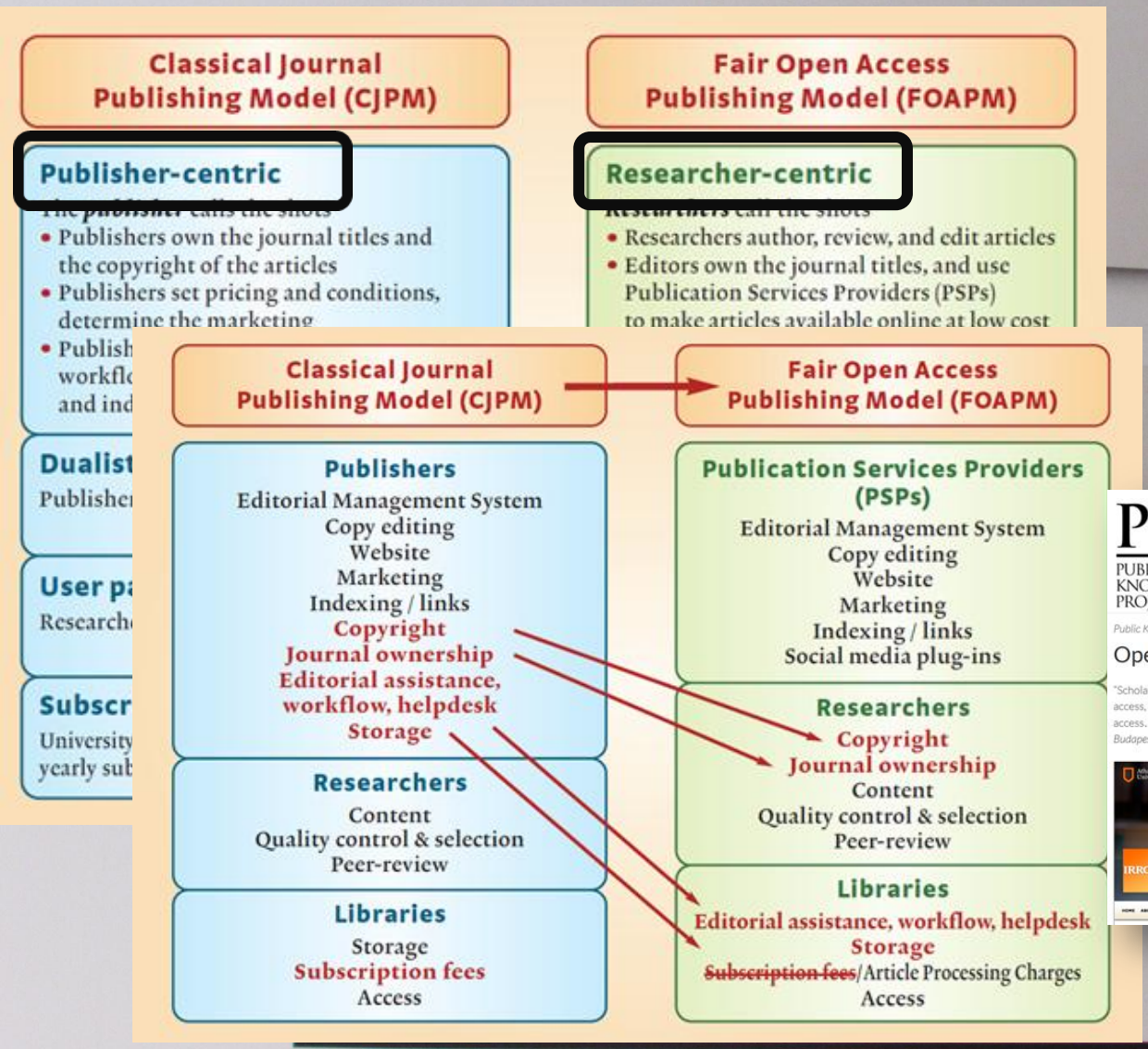
On its own, the fact that publishing is essential to success is just a fact of the trade. Running faster defines better sprinters; conducting more high-impact research defines better scientists. The research must be published to have impact. And yet, publishing is also the basis of a conflict of interest between personal interests and the objective of knowledge accumulation. The reason? *Published* and *true* are not synonyms. To the extent that publishing itself is rewarded, then it is in scientists' personal interests to publish, regardless of whether the published findings are true (Hackett, 2005; Martin, 1992; Sovacool, 2008).

"novità" e "risultati positivi" sono utili alla pubblicabilità ma non alla verità

The solution requires making incentives for "getting it right" competitive with the incentives for "getting it published".

BA. Nosek et al. Scientific Utopia: II. Restructuring Incentives and Practices to Promote Truth Over Publishability, Perspectives on Psychological Science, 2012, 7: 615- 631

Una nuova prospettiva



http://goo.gl/HxFYgg

https://pkp.sfu.ca/ojs/

http://goo.gl/BR0pON

Una nuova sostenibilità

Disrupting the subscription journals' business model for the necessary large-scale transformation to open access

A Max Planck Digital Library Open Access Policy White Paper

Scenario of transformation based on current operating numbers per year

Global view

Subscription market today	Global market volume 7.6 bn EUR	1.5 M research papers (WoS); up to ~ 2 M overall	5,000 EUR/ article WoS; 3,800 EUR/ article overall
After an OA transformation	**Global basis volume 4 bn EUR**	2 M research papers	2,000 EUR/article

http://goo.gl/gMoKke


O, meglio, un nuovo panorama
Open Science

Open Science

Open Definition

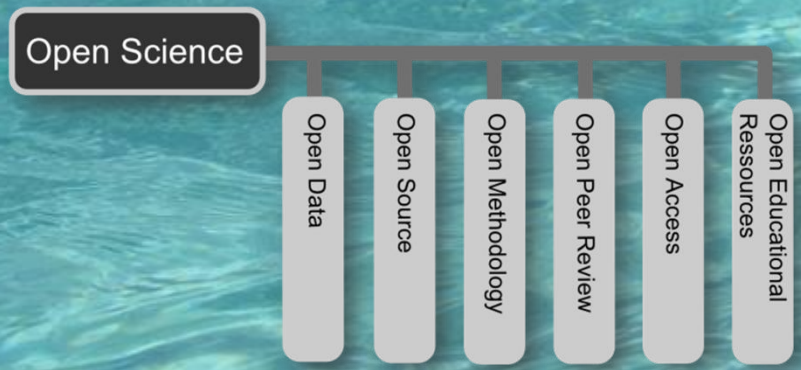
*"Open data and content can be **freely used, modified, and shared** by **anyone** for **any purpose**"*

http://opendefinition.org/

SPARC Europe Retweeted

Iryna Kuchma @irynakuchma · Nov 18

#Openscience is about making sure that science serves innovation & growth – Günther Oettinger & Carlos Moedas ec.europa.eu/commission/201…



Open Science Depends on Open Minds

Neelie Kroes

Iscriviti 851

Open Science @openscience · 5 h

"Being open and transparent is an ongoing practice and not a check box at the end." - @biocrusoe #openscience

13 8

Il cambiamento siamo noi

cambiamento arriva quando i vecchi paradigmi non spiegano più la realtà (Kuhn)

SCHOLARLY COMMUNICATION

I Have Seen the Paradigm Shift, and It Is Us

JOHN WILBANK
Creative Commons

I TEND TO GET NERVOUS WHEN I HEAR TALK OF PARADIGM SHIFTS. The term itself has been debased through inaccurate popular use—even turning into a joke on *The Simpsons*—but its original role in Thomas Kuhn's *Structure of Scientific Revolutions* [1] is worth revisiting as we examine the idea of a Fourth Paradigm and its impact on scholarly communication [2].

Ciò che deve cambiare di fronte alla scienza data-intensive è il nostro paradigma dell'essere scienziato, non quello della ricerca in sé

Due punti fermi che vengono da:
Web = **pubblico**
Open source = **distribuito**

Il paradigma da distruggere è quello dello scienziato FUORI dalla rete, NON connesso

pensarci come
NODI DI UNA RETE

J. Wilbanks, I have seen the paradigm shift, and it is us, in The Fourth Paradigm: Data-Intensive Scientific Discovery, 2012

Openness

Every day I meet people from our vast community of thinkers and innovators. People who are tireless in their willingness to guide Europe towards ever-greater peace and prosperity.
Their defining quality is openness.

C. Moedas, The importance of research for the future of Europe, August 31, 2015

Openness

Common to all these people – common to success in the research and innovation community – is openness. It is my opinion that the future of innovation lies in bringing as many different people, concepts and fields together. The future of research in Europe lies in people like you setting its course as a community, and with those who are different from you.

In my eyes, the future lies in open innovation, because openness fuels innovation.

C. Moedas, The importance of research for the future of Europe, August 31, 2015

'Open' is a win-win

Open Science ha impatto sull'intera società

The Innovation Policy Platform

About | News | Contact | Videos

SIGN UP SIGN IN

Browse by Topic | Select a Country | Statistics | Communities

The rationales and impact of open science

The particularities of open science provide the policy and economic rationales for supporting it. Open search tools increase the efficiency of research as well as of its diffusion. Greater access to scientific inputs and outputs can improve the effectiveness and productivity of the scientific and research system, by: reducing duplication costs in collecting, creating, transferring and reusing data and scientific material; allowing more research from the same data; and multiplying opportunities for domestic and global participation in the research process. Scientific advice can also benefit from the greater scrutiny offered by open science, as it allows a more accurate verification of research results. In addition, increased access to research results (in the forms of both publications and data) can foster spillovers not only to scientific systems but also innovation systems more broadly (Box 1.1). With increased access to publications and data, firms and individuals may use and reuse scientific outputs to produce new products and services. Open science also allows the closer involvement and participation of citizens.

There is growing evidence that open science has an impact on the research enterprise, business and innovation, and society more generally. Recent analysis reveals that enhanced public access to scientific publications and research data increases the visibility of, and spillovers arising from, science and research.

There has been debate in the academic literature as to whether open access publications receive more citations than non-open access publications, which has led to attempting to measure the so-called *open access citation advantage*. Most of the studies conducted on this question do find that open access increases citations. It has also been argued that the open access citation advantage is caused by a quality bias (i.e. researchers tend to publish via open access their best-quality works, and this is why they get more citations); however, there is also evidence that the citation advantage is not caused by the quality bias but by the advantage from users self-selecting what to use and cite, without any constraint related to selective accessibility to subscribers only.

Universities and Public Research Institutes

Table of Contents

Open Science

Access the full report.

Related links

The OECD Daejeon Ministerial

What is open science?

Open science commonly refers to efforts to make the output of publicly funded research more widely accessible in digital format to the scientific community, the business sector, or society more generally. Open science is the encounter between the age-old tradition of openness in science and the tools of information and communications technologies (ICTs) that have reshaped the scientific enterprise and require a critical look from policy makers seeking to promote long-term research as

Universities and Public Research Institutes

Table of Contents

- Processes and contributions of universities and PRIs
- Metrics and evaluation for universities and PRIs
- Demand for knowledge from universities and PRIs
- Research capabilities and resources of universities and PRIs
- Universities' and PRIs' access to research and engineering skills
- Research and engineering community norms and incentives
  - Open Science
    - Recent findings and policy messages for open science
    - The rationales and impact of open science
    - Key actors for open science
    - Policy trends in open science

Making Open Science a reality, OECD, 2015

Open Science?

f i ® s t m ¤ ñ d @ ¥
PEER-REVIEWED JOURNAL ON THE INTERNET

Putting open science into practice: A social dilemma?
by Kaja Scheliga and Sascha Friesike

…anche se in teoria i ricercatori sono d'accordo, nella pratica poi hanno comportamenti non coerenti…

I maggiori impedimenti:
-sistema di valutazione
-mancanza di standards
-aspetti legali /licenze
-riluttanza a condividere

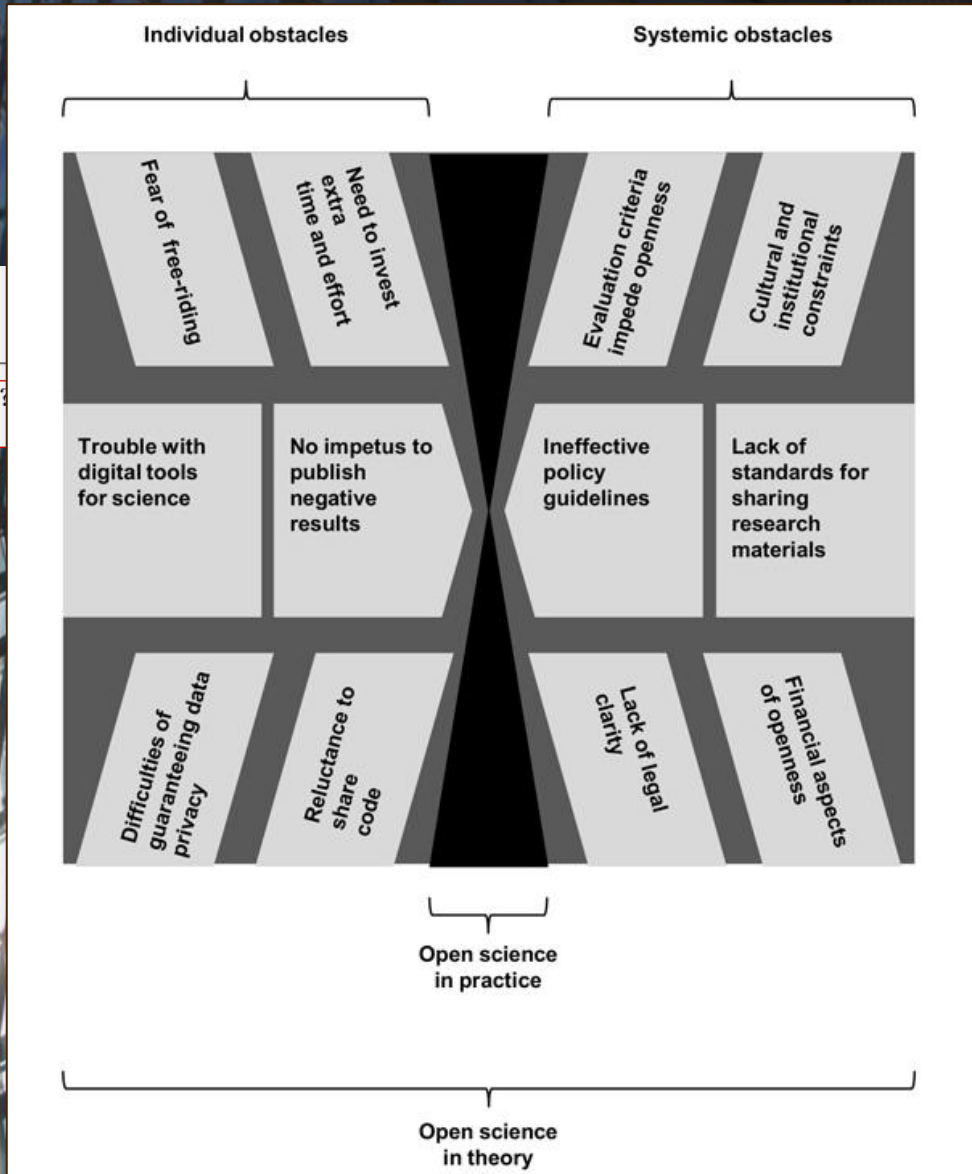


Figure 1. Obstacles to open science.

http://journals.uic.edu/ojs/index.php/fm/article/view/5381/4117

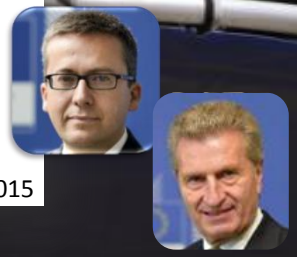
Open science: il futuro dell'Europa

Today's conference "Opening up to an ERA of Innovation" features a session devoted to open science.

What is open science about?

Open Science describes the on-going transitions in the way research is performed, researchers collaborate, knowledge is shared, and science is organised. It represents a systemic change in the modus operandi of science and research. It affects the whole research cycle and its stakeholders, enhances science by facilitating more transparency, openness, networking, collaboration, and refocusses science from a 'publish or perish' perspective to a knowledge-sharing perspective.

Open science is also about making sure that science serves innovation and growth. It guarantees open access to publicly-funded research results and the possibility of knowledge sharing by providing infrastructures. Facilitating access to those data will encourage re-use of research output. For example, companies, and particularly SMEs, can access and re-use data, infrastructures and tools easily and at a reasonable cost and can accelerate the implementation of ideas for innovative products and services.



Moedas – Oetinger, Opening up to an ERA of innovation, 22 giugno 2015

Open science: il futuro dell' Europa

We have to ensure that open science develops in the right way to contribute to the common effort to make the EU more competitive and maintain excellence in science.

First, it is crucial to advance open science at national, European and global levels. This requires mutual responsiveness of all key-stakeholders involved - research performing organisations, research funding organisations, and businesses, and will imply a review of how science is evaluated, the creation of new research funding mechanisms, and alternative ways of publishing.

Second, we need to create an open science environment that is friendly to both science and business.

Third, open science should be an inclusive process. We need to stimulate further engagement of open science stakeholders ranging from individual researchers to universities, from start-ups to large companies. Open science is also about making sure that science becomes more responsive to socio-economic and citizens' demands. It will enable faster innovation

Moedas – Oetinger, Opening up to an ERA of innovation, 22 giugno 2015

Open Science: il futuro dell'Europa

[Fifth freedom]

Janez Potočnik

2007

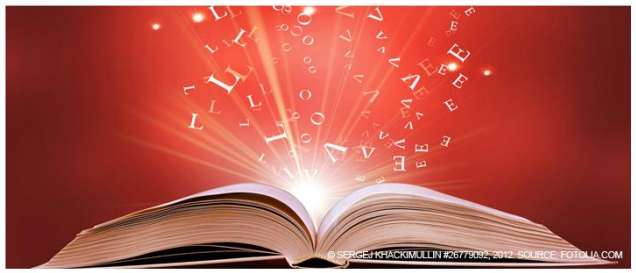
European Commissioner for Science and Research

The EU's Fifth Freedom: creating free movement of knowledge

The ERA priorities

- **More effective national research systems** – including increased competition within national borders and sustained or greater investment in research
- **Optimal transnational co-operation and competition** - defining and implementing common research agendas on grand-challenges, raising quality through Europe-wide open competition, and constructing and running effectively key research infrastructures on a pan-European basis
- **An open labour market for researchers** - to ensure the removal of barriers to researcher mobility, training and attractive careers
- **Gender equality and gender mainstreaming in research** – to end the waste of talent which we cannot afford and to diversify views and approaches in research and foster excellence
- **Optimal circulation, access to and transfer of scientific knowledge including via digital ERA** - to guarantee access to and uptake of knowledge by all.

http://ec.europa.eu/research/era/index_en.htm



Optimal circulation, access to and transfer of scientific knowledge

To guarantee access to and uptake of knowledge by all.

Research and innovation benefit from scientists, research institutions, businesses and citizens accessing, sharing and using existing scientific knowledge and the possibility to express timely expectations or concerns on such activities. A major challenge is to broadly implement Open Access - i.e. free internet access to and use of publicly-funded scientific publications and data - given the uneven state of advancement of Member State policies in this area. More generally, to increase the economic impact of research, we need to foster Open Innovation, links between research, business and education (the knowledge triangle) as via EIT and in particular knowledge transfer between public research institutions and the private sector while respecting intellectual property rights. As most knowledge creation and transfer uses digital means, all barriers preventing seamless online access to digital research services for collaboration, computing and accessing scientific information (e-Science) and to einfrastructures must also be removed by promoting a digital ERA. The different types of knowledge transfer, circulation and access should also be judiciously factored into research cooperation with non-EU countries.

An open labour market for researchers

Facilitating mobility, supporting training and ensuring attractive careers

While researcher mobility contributes to excellence, several obstacles stand in the way of a genuine European research labour market. One of the most important is the lack of transparent, open and merit-based recruitment, which makes research careers less attractive and hampers mobility, Gender equality and research performance.

Giving non-nationals/ non-residents access to national grants and making them portable across borders would make mobility easier. In some cases, legal and administrative barriers prevent this. Initiatives such as 'Money Follows Researcher' show how those barriers can be removed and how Member States and research organisations can organise access to and portability of national grants, while upholding the interests of all parties.

euraxess RESEARCHERS IN MOTION

I am convinced **that excellent science is the foundation of future prosperity,**
and that **openness is the key to excellence**. […]
We need more open access to research results and the underlying data. Open access publication is already a requirement under Horizon 2020, but we now need to look seriously at open data[…]

Let's dare to make Europe open to innovation, open to science and open to the world.

Opening up to an ERA of innovation, Bruxelles, 22 giugno 2015

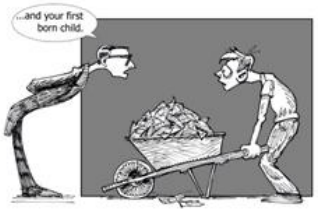
Why open research?

Share your work. Be successful.

Open scholarship is good for the public and for you.

Increase your visibility

Build a name for yourself. Share your work and make it more visibile.



Reduce publishing costs

Open publishing can cost the same or less than traditional publishing.

Take back control

Know your rights. Keep your rights. Decide how your work is used.

Get more funding

Meet funder requirements, and qualify for special funds.

Publish where you want

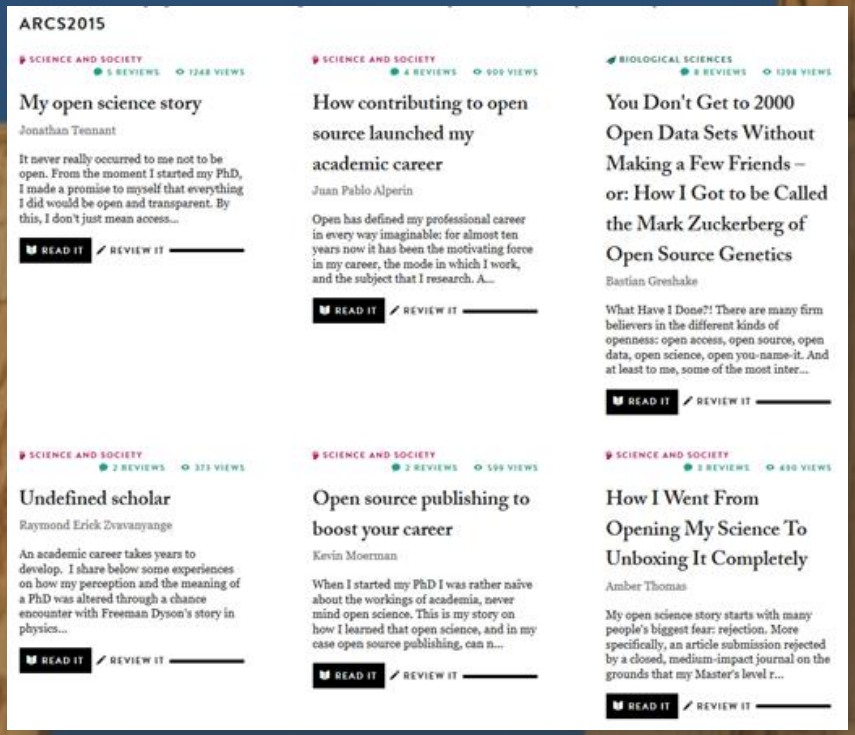
Publish in the journal of your choice and archive an open copy.

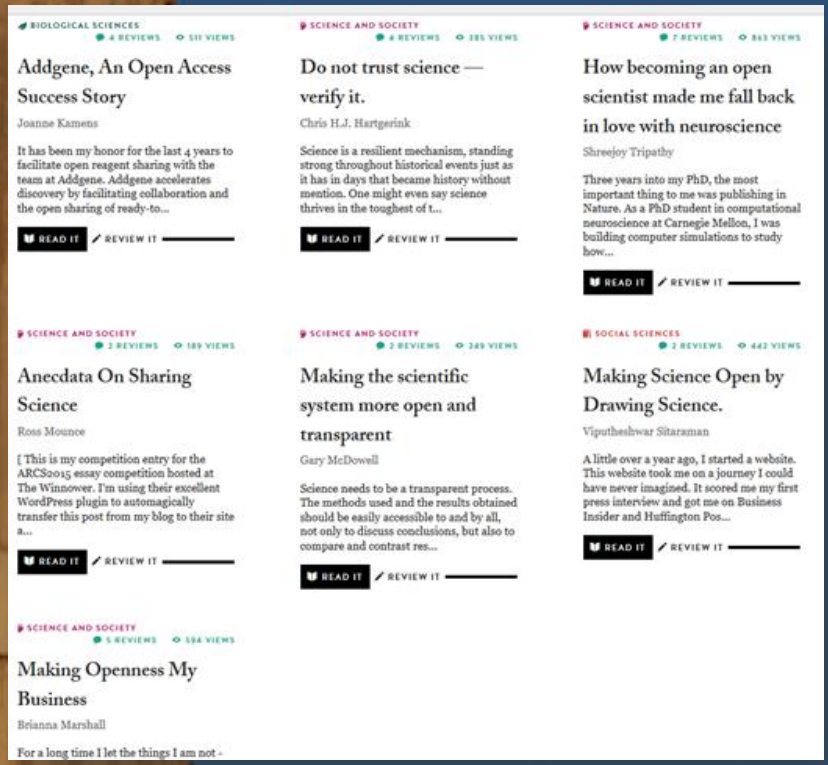
Get that promotion

Open research is increasingly recognized in promotion and tenure.

http://whyopenresearch.org/

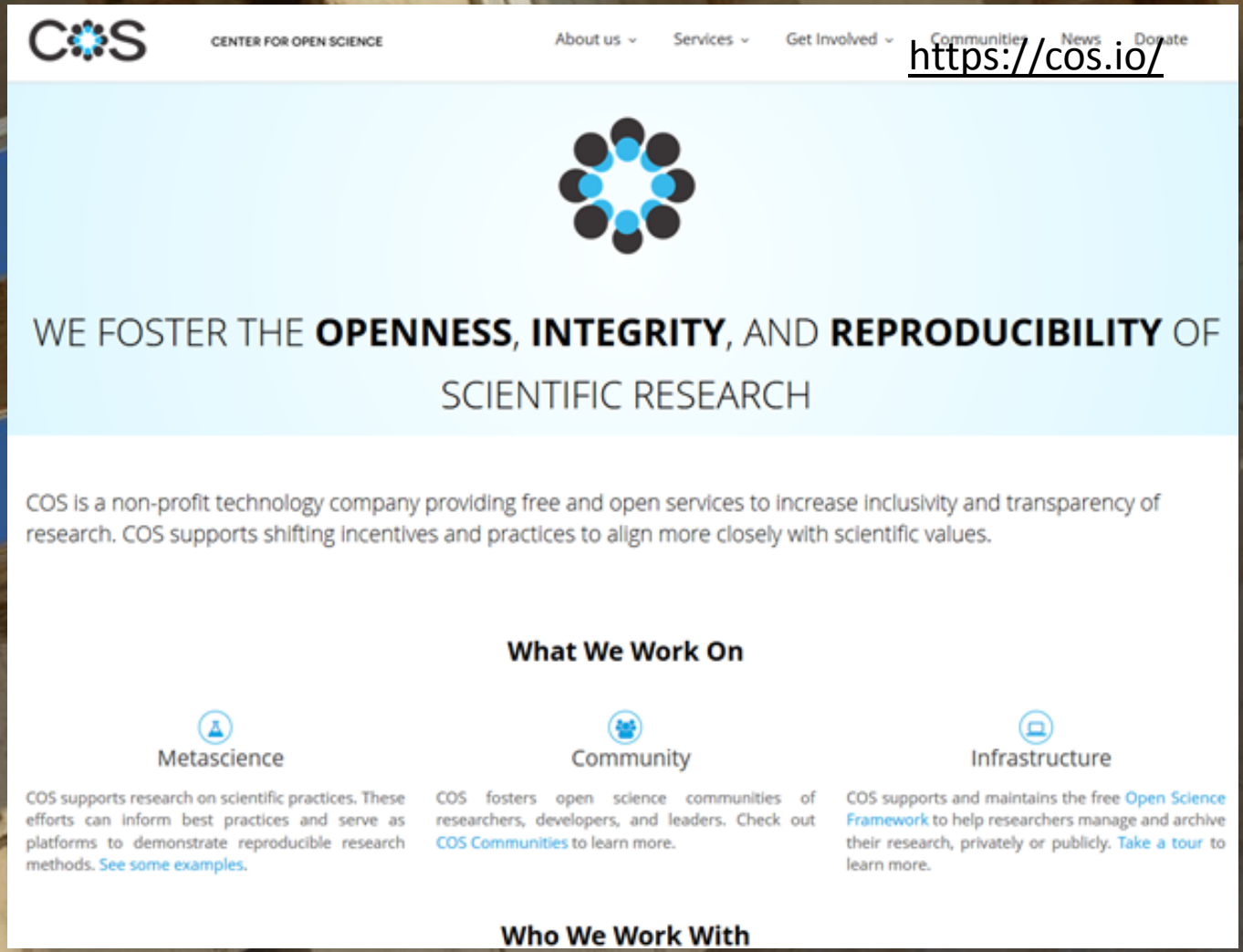
Why open research?





http://whyopenresearch.org/

Open science tools



Open science tools

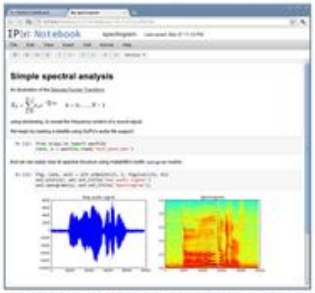
IP[y]: IPython
Interactive Computing

Install · Documentation · Project · Jupyter · News · Cite · Donate

The IPython Notebook

http://ipython.org/notebook.html

The IPython Notebook is an interactive computational environment, in which you can combine code execution, rich text, mathematics, plots and rich media, as shown in this example session:



It aims to be an agile tool for both exploratory computation and data analysis, and provides a platform to support **reproducible research**, since all inputs and outputs may be stored in a one-to-one way in notebook documents.

There are two components:

- The **IPython Notebook** web application, for interactive authoring of literate computations, in which explanatory text, mathematics, computations and rich media output may be combined. Input and output are stored in persistent cells that may be edited in-place.
- Plain text documents, called **notebooks**, for recording and distributing the results of the rich computations.

Economics Simulation

This is a simulation of an economic marketplace in which there is a *population* of actors, each of which has a level of wealth (a single number) that changes over time. On each time step two agents (chosen by an *interaction rule*) interact with each other and exchange wealth (according to a *transaction rule*). The idea is to understand the evolution of the population's wealth over time. My hazy memory is that this idea came from a class by Prof. Sven Anderson at Bard (any errors or misconceptions here are due to my (Peter Norvig) misunderstanding of his idea). Why this is interesting: (1) an example of using simulation to model the world. (2) Many students will have preconceptions about how economies work that will be challenged by the results shown here.

Population Distributions

First things first: what should our initial population look like? We will provide several distribution functions (constant, uniform, Gaussian, etc.) and a `sample` function, which samples *N* elements form a distribution and then normalizes them to have a given mean. By default we will have *N*=5000 actors and an initial mean wealth of 100 simoleons.

```
In [299]: import random
          import matplotlib
          import matplotlib.pyplot as plt
```

example from Peter Norvig (Google)

M.Nielsen, Beyond Open Access, OAI9, June 2015

Transactions

In a transaction, two actors come together; they have existing wealth levels X and Y. For now we will only consider transactions that conserve wealth, so our transaction rules will decide how to split up the pot of X+Y total wealth.

```
In [360]: def random_split(X, Y):
              "Take all the money in the pot and divide it randomly between X and Y."
              pot = X + Y
              m = random.uniform(0, pot)
              return m, pot - m

          def winner_take_most(X, Y, most=3/4.):
              "Give most of the money in the pot to one of the parties."
              pot = X + Y
              m = random.choice((most * pot, (1 - most) * pot))
              return m, pot - m

          def winner_take_all(X, Y):
              "Give all the money in the pot to one of the actors."
              return winner_take_most(X, Y, 1.0)

          def redistribute(X, Y):
              "Give 55% of the pot to the winner; 45% to the loser."
              return winner_take_most(X, Y, 0.55)
```

Norvig considers several possibilities

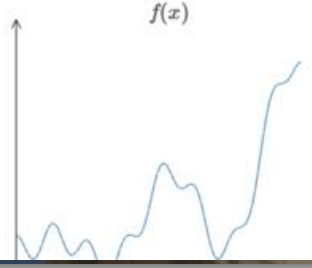
Op

CHAPTER 4

A visual proof that neural nets can compute any function

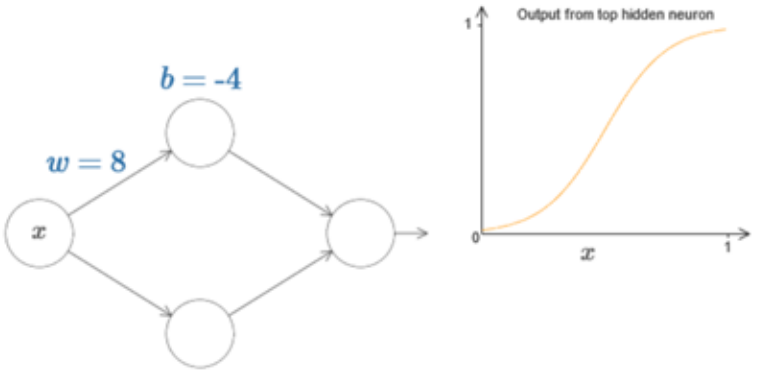
One of the most striking facts about neural networks is that they can compute any function at all. That is, suppose someone hands you some complicated, wiggly function, $f(x)$:

http://neuralnetworksanddeeplearning.com/chap4.html



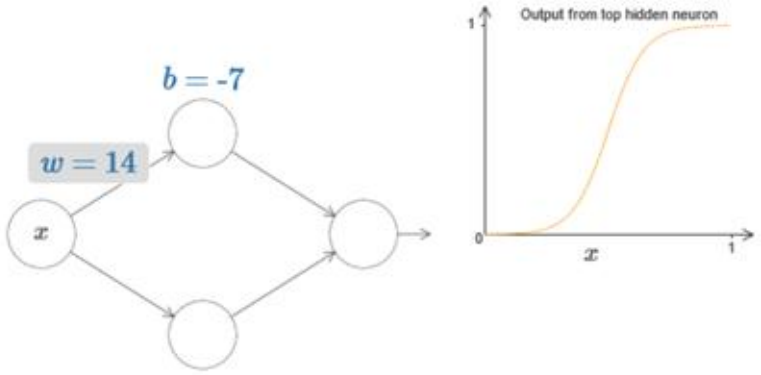
Michael Nielsen e il «deep learning»

To get a feel for how components in the network work, let's focus on the top hidden neuron. In the diagram below, click on the weight, w, and drag the mouse a little ways to the right to increase w. You can immediately see how the function computed by the top hidden neuron changes:



As we learnt earlier in the book, what's being computed by the hidden neuron is $\sigma(wx + b)$, where $\sigma(z) \equiv 1/(1 + e^{-z})$ is the sigmoid function. Up to now, we've made frequent use of this

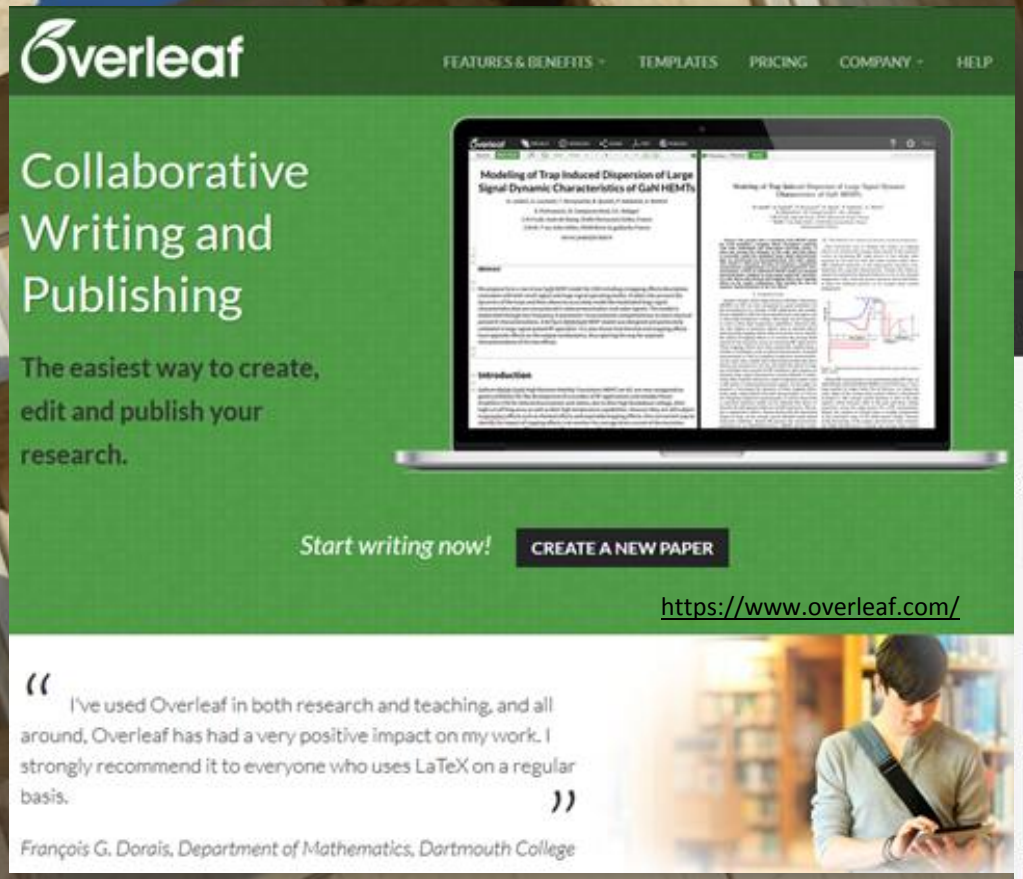
To get a feel for how components in the network work, let's focus on the top hidden neuron. In the diagram below, click on the weight, w, and drag the mouse a little ways to the right to increase w. You can immediately see how the function computed by the top hidden neuron changes:



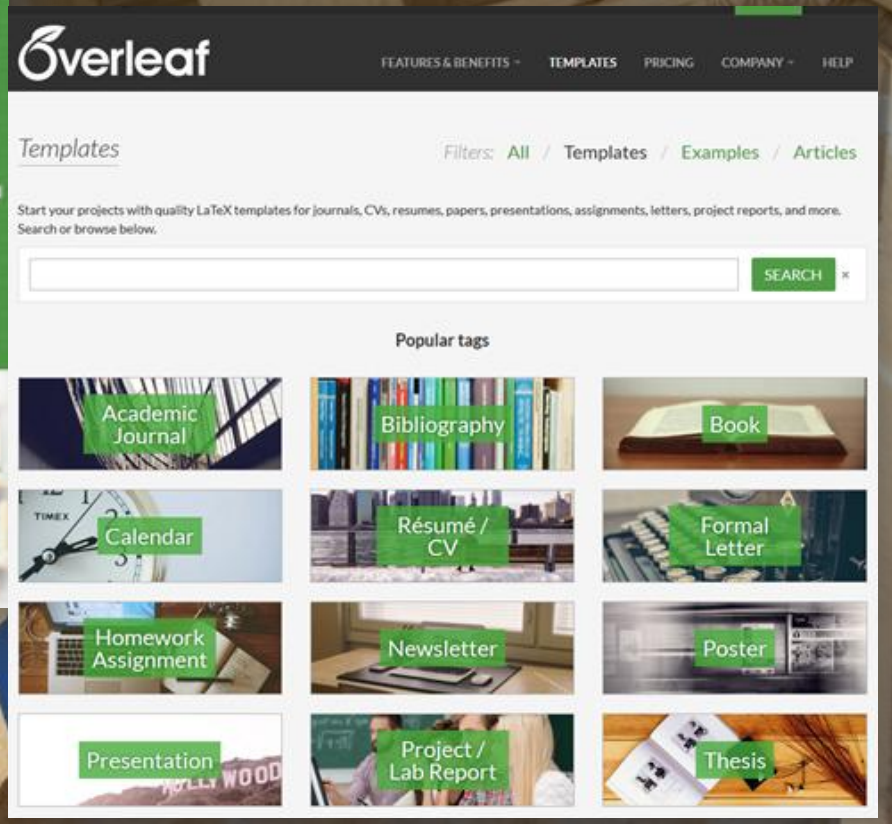
As we learnt earlier in the book, what's being computed by the hidden neuron is $\sigma(wx + b)$, where $\sigma(z) \equiv 1/(1 + e^{-z})$ is the sigmoid function. Up to now, we've made frequent use of this algebraic form. But for the proof of universality we will obtain more

Open science tools

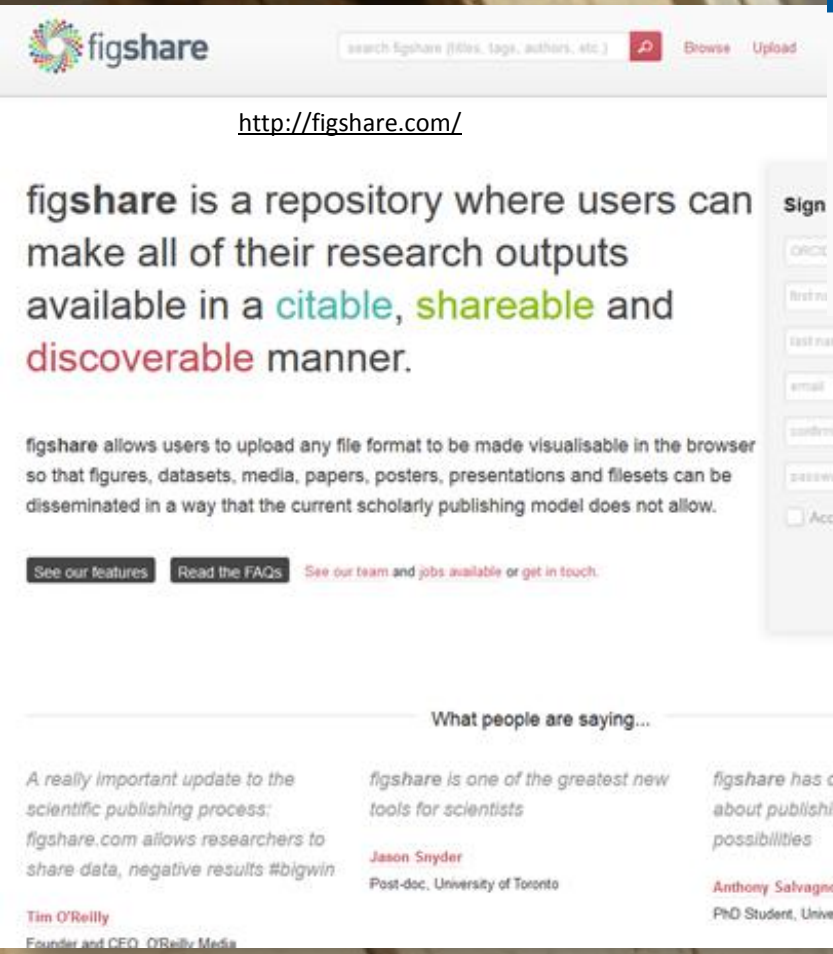
Open science tools



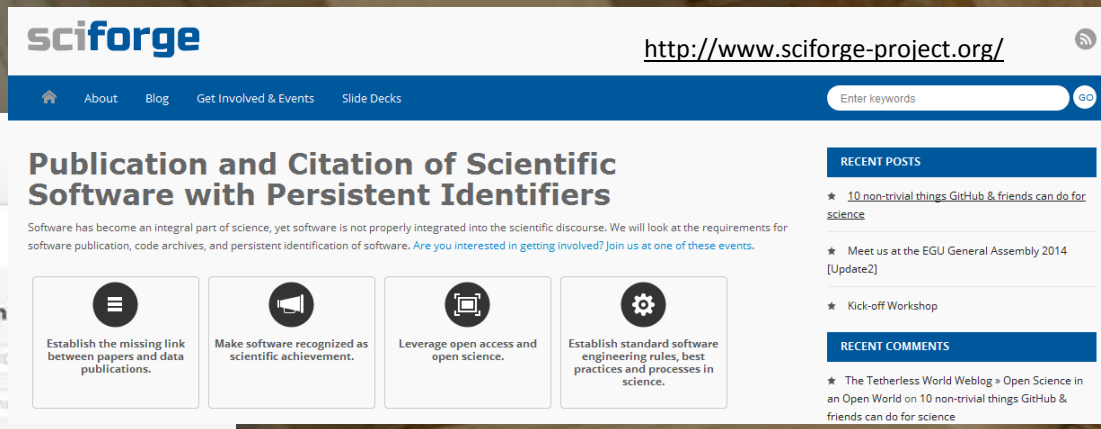
https://www.overleaf.com/



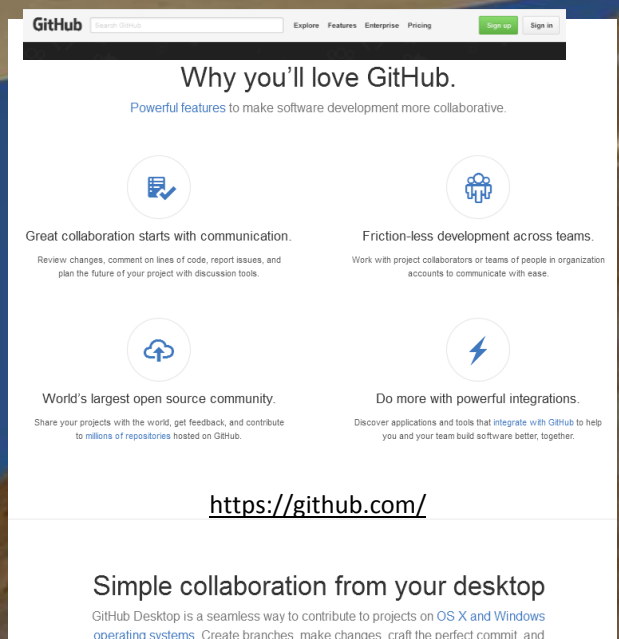
Open science tools



http://figshare.com/

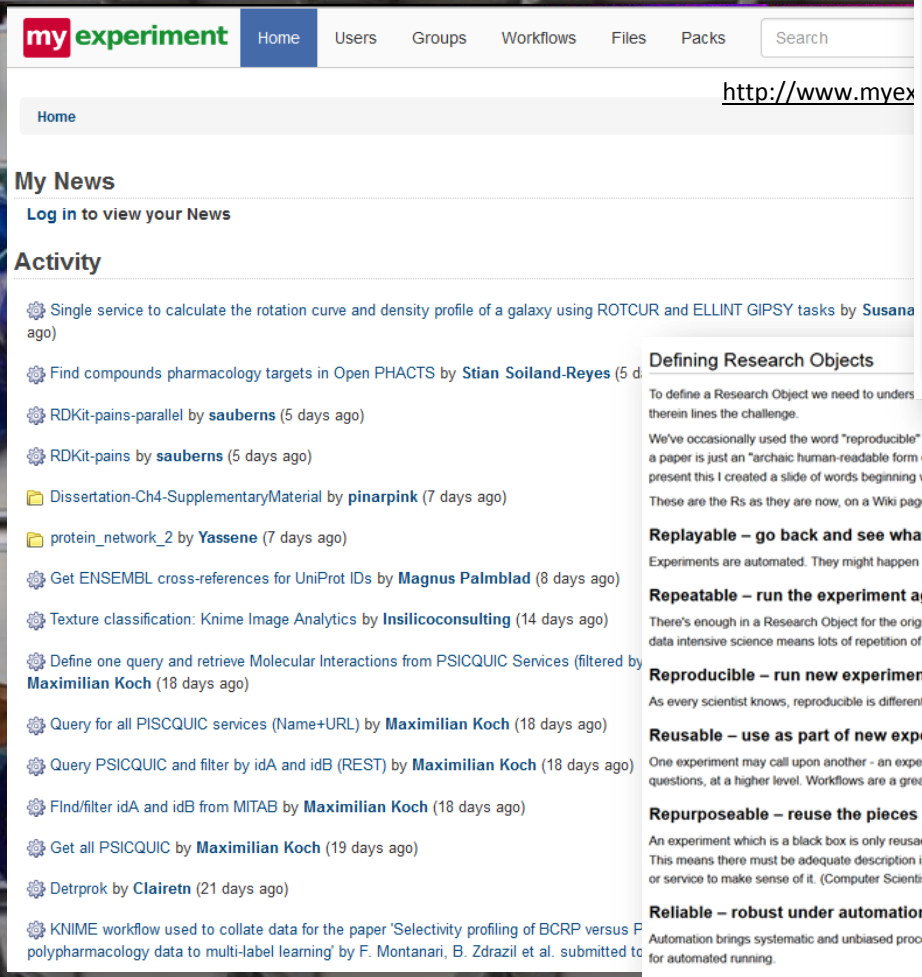


http://www.sciforge-project.org/



https://github.com/

Open science tools



http://www.myex

Defining Research Objects

To define a Research Object we need to unders
therein lines the challenge.

We've occasionally used the word "reproducible" in presentations, and there is a literature on "reproducible research". When I was working up my talk for the panel at ESWC 2009 I took the provocative position that a paper is just an "archaic human-readable form of a Research Object", and that in the future we won't say "can I have a copy of your paper please" but rather "could you share that research object with me please?" To present this I created a slide of words beginning with R (in fact, "Re.*") which characterise both future research and hence a Research Object, and this has evolved through several talks.

These are the Rs as they are now, on a Wiki page so they can continue to evolve in public. They have varied in number but settled down at six:

Replayable – go back and see what happened

Experiments are automated. They might happen in millseconds or in months. Either way, the ability to replay the experiment, and to study parts of it, is essential for human understanding of what happened.

Repeatable – run the experiment again

There's enough in a Research Object for the original researcher or others to be able to repeat the experiment, perhaps years later, in order to verify the results or validate the experimental environment. And the scale of data intensive science means lots of repetition of processing - to deal with the deluge of data or indeed the deluge of methods. Research Objects should help us scale.

Reproducible – run new experiment to reproduce the results

As every scientist knows, reproducible is different to repeatable! To reproduce (or replicate) a result is for someone else to start with the same materials and methods and see if a prior result can be confirmed.

Reusable – use as part of new experiments

One experiment may call upon another - an experiment may be used in a context other that that in which it was originally conceived. By assembling methods in this way we can conduct research, and ask research questions, at a higher level. Workflows are a great example.

Repurposeable – reuse the pieces in a new experiment

An experiment which is a black box is only reusaeable as a black box. By opening the lid we find parts, and combinations of parts, available for reuse, and the way they are assembled is a clue to how they can be re-used. This means there must be adequate description inside the box. Hence a research object is self-contained and self-describing - it contains enough metadata to have all the above characteristics and for a e-Lab component or service to make sense of it. (Computer Scientists have an "Re" word for this - "reflection", which means you can not only run a Research Object like a program but you can also look inside it like data).

Reliable – robust under automation

Automation brings systematic and unbiased processing, and also "unattended experiments" - human out the loop. In data-intensive science, Research Objects promote reliable experiments, but also they must be reliable for automated running.

Copyright/diritto d’autore

Immagini e testi online: il diritto d’autore alla prova del web
Video
Slides

LEGGE 22 aprile 1941, n. 633
Protezione del diritto d'autore e di altri diritti connessi al suo esercizio. (041U0633) *(GU n.166 del 16-7-1941)*

vigenti al 24-11-2015

Articoli

TITOLO I
DISPOSIZIONI SUL DIRITTO DI AUTORE

CAPO I
Opere protette

1
2
3
4
5

Testo in vigore dal: 18-12-1942

Art. 6.

Il titolo originario dell'acquisto del diritto di autore e' costituito dalla creazione dell'opera, quale particolare espressione del lavoro intellettuale.

Legge 633/1941

Open rights / 2

Un concetto chiave:

- Diritti in entrata (ho i diritti per utilizzare materiale altrui?)
- Diritti in uscita (quali diritti associo alla mia opera? Cosa concedo di fare della mia opera?)

Open rights / 3

A. COPYRIGHT

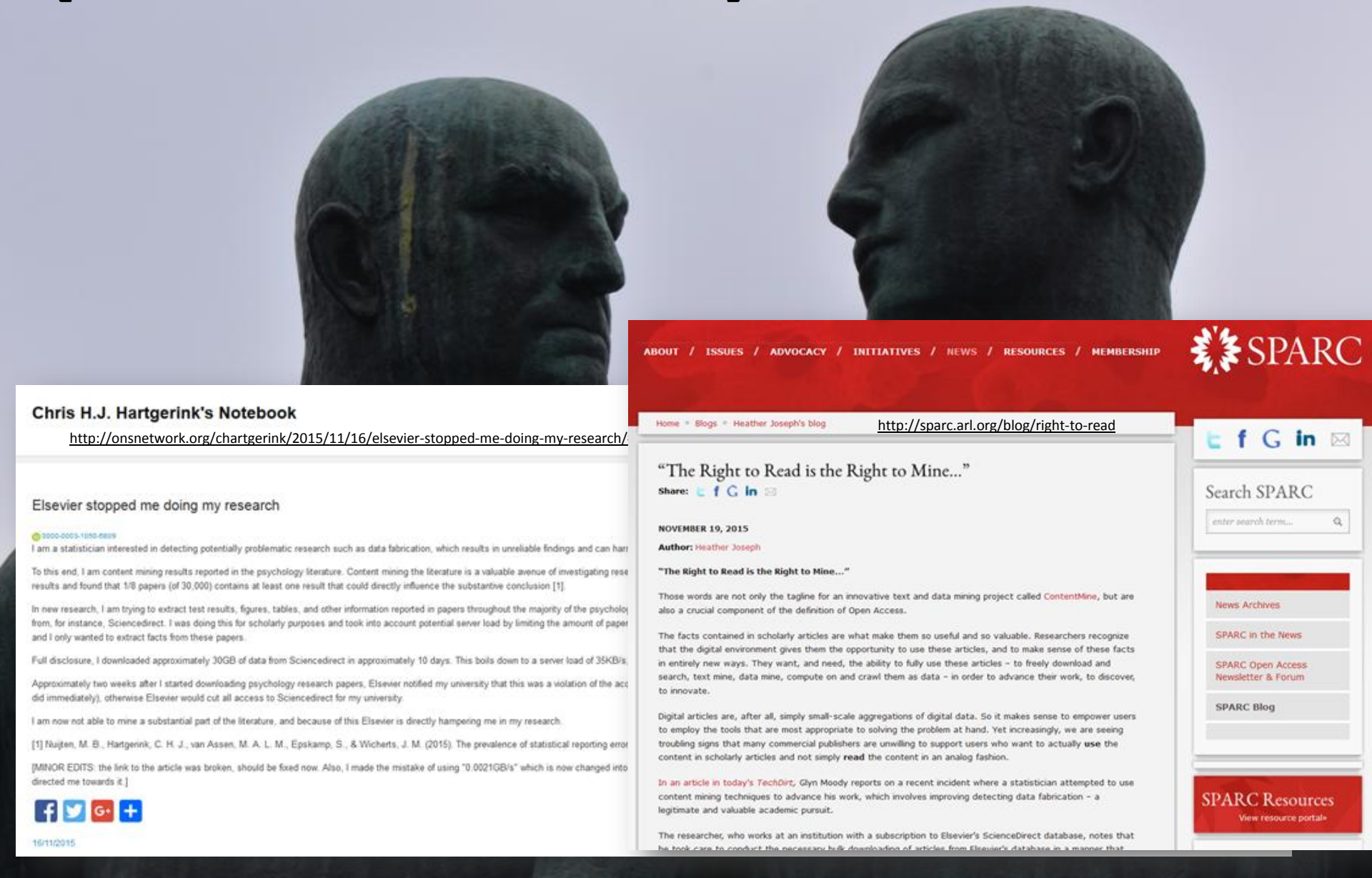
1. The Contributor assigns to the Owner, during the full term of copyright and any extensions or renewals, all copyright in and to the Contribution, and all rights therein, including but not limited to the right to publish, republish, transmit, sell, distribute and otherwise use the Contribution in whole or in part in electronic and print editions of the Journal and in derivative works throughout the world, in all languages and in all media of expression now known or later developed, and to license or permit others to do so.

2. Reproduction, posting, transmission or other distribution or use of the final Contribution in whole or in part in any medium by the Contributor as permitted by this Agreement requires a

Non cedete i vostri diritti

http://www.sparc.arl.org/resources/authors/addendum

[Uno scontro in atto]



Chris H.J. Hartgerink's Notebook

http://onsnetwork.org/chartgerink/2015/11/16/elsevier-stopped-me-doing-my-research/

Elsevier stopped me doing my research

I am a statistician interested in detecting potentially problematic research such as data fabrication, which results in unreliable findings and can harr

To this end, I am content mining results reported in the psychology literature. Content mining the literature is a valuable avenue of investigating rese results and found that 1/8 papers (of 30,000) contains at least one result that could directly influence the substantive conclusion [1].

In new research, I am trying to extract test results, figures, tables, and other information reported in papers throughout the majority of the psycholo from, for instance, Sciencedirect. I was doing this for scholarly purposes and took into account potential server load by limiting the amount of paper and I only wanted to extract facts from these papers.

Full disclosure, I downloaded approximately 30GB of data from Sciencedirect in approximately 10 days. This boils down to a server load of 35KB/s.

Approximately two weeks after I started downloading psychology research papers, Elsevier notified my university that this was a violation of the acc did immediately), otherwise Elsevier would cut all access to Sciencedirect for my university.

I am now not able to mine a substantial part of the literature, and because of this Elsevier is directly hampering me in my research.

[1] Nuijten, M. B., Hartgerink, C. H. J., van Assen, M. A. L. M., Epskamp, S., & Wicherts, J. M. (2015). The prevalence of statistical reporting error

[MINOR EDITS: the link to the article was broken, should be fixed now. Also, I made the mistake of using "0.0021GB/s" which is now changed into directed me towards it.]

16/11/2015

ABOUT / ISSUES / ADVOCACY / INITIATIVES / NEWS / RESOURCES / MEMBERSHIP

SPARC

Home » Blogs » Heather Joseph's blog

http://sparc.arl.org/blog/right-to-read

"The Right to Read is the Right to Mine..."

Share:

NOVEMBER 19, 2015

Author: Heather Joseph

"The Right to Read is the Right to Mine..."

Those words are not only the tagline for an innovative text and data mining project called ContentMine, but are also a crucial component of the definition of Open Access.

The facts contained in scholarly articles are what make them so useful and so valuable. Researchers recognize that the digital environment gives them the opportunity to use these articles, and to make sense of these facts in entirely new ways. They want, and need, the ability to fully use these articles – to freely download and search, text mine, data mine, compute on and crawl them as data – in order to advance their work, to discover, to innovate.

Digital articles are, after all, simply small-scale aggregations of digital data. So it makes sense to empower users to employ the tools that are most appropriate to solving the problem at hand. Yet increasingly, we are seeing troubling signs that many commercial publishers are unwilling to support users who want to actually **use** the content in scholarly articles and not simply **read** the content in an analog fashion.

In an article in today's *TechDirt*, Glyn Moody reports on a recent incident where a statistician attempted to use content mining techniques to advance his work, which involves improving detecting data fabrication – a legitimate and valuable academic pursuit.

The researcher, who works at an institution with a subscription to Elsevier's ScienceDirect database, notes that

Search SPARC

enter search term...

News Archives

SPARC in the News

SPARC Open Access Newsletter & Forum

SPARC Blog

SPARC Resources

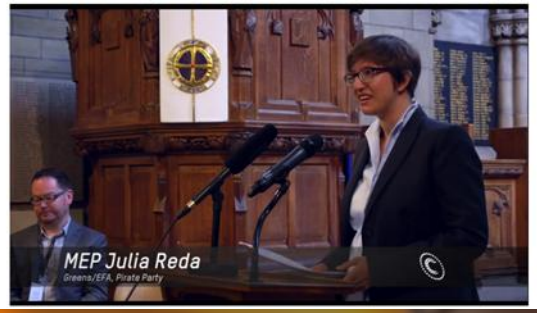
View resource portal»

[Uno scontro in atto]

Why academics need to lobby for copyright reform – now

https://juliareda.eu/2015/09/academics-for-copyright-reform/

This speech was given at EPIP 2015 in Glasgow, UK on September 2nd, 2015



Date: 10.09.15
Category: Genera
Comments: 1
Author: Julia Red

If we consider evidence-based policy making a desirable goal, then we need to take a stand for research and education.

"CURRENTLY, COPYRIGHT IS UNDERMINING OUR ABILITY TO CONDUCT RESEARCH"

TWEET THIS!

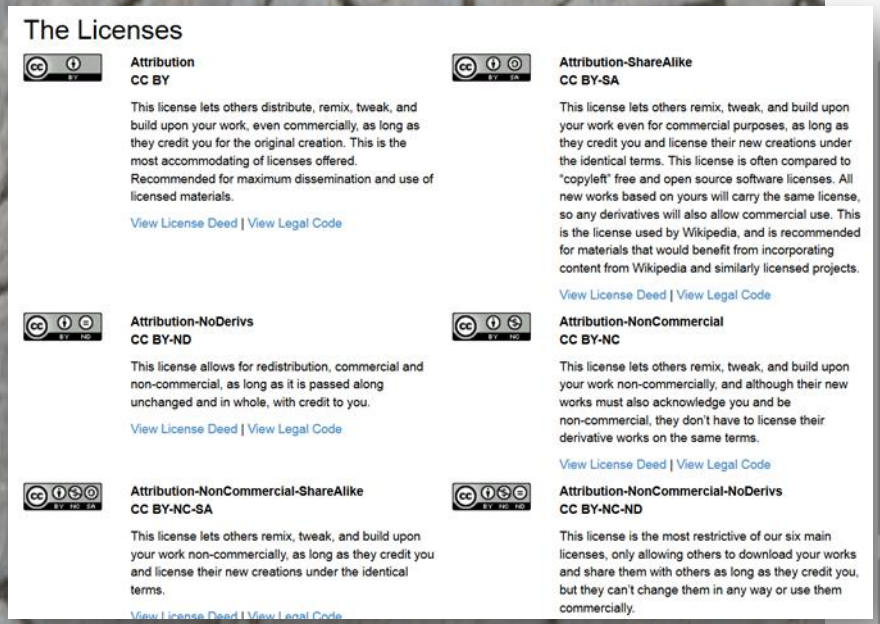
The current copyright regime is undermining our ability to produce evidence. It is time that academics in large numbers – and not just in the field of IP studies – speak up about this issue. Decreasing the very substantial burdens and transaction costs for research and education is one of the declared goals of the Commission's copyright reform proposal, and the European Parliament has echoed that sentiment in my report.

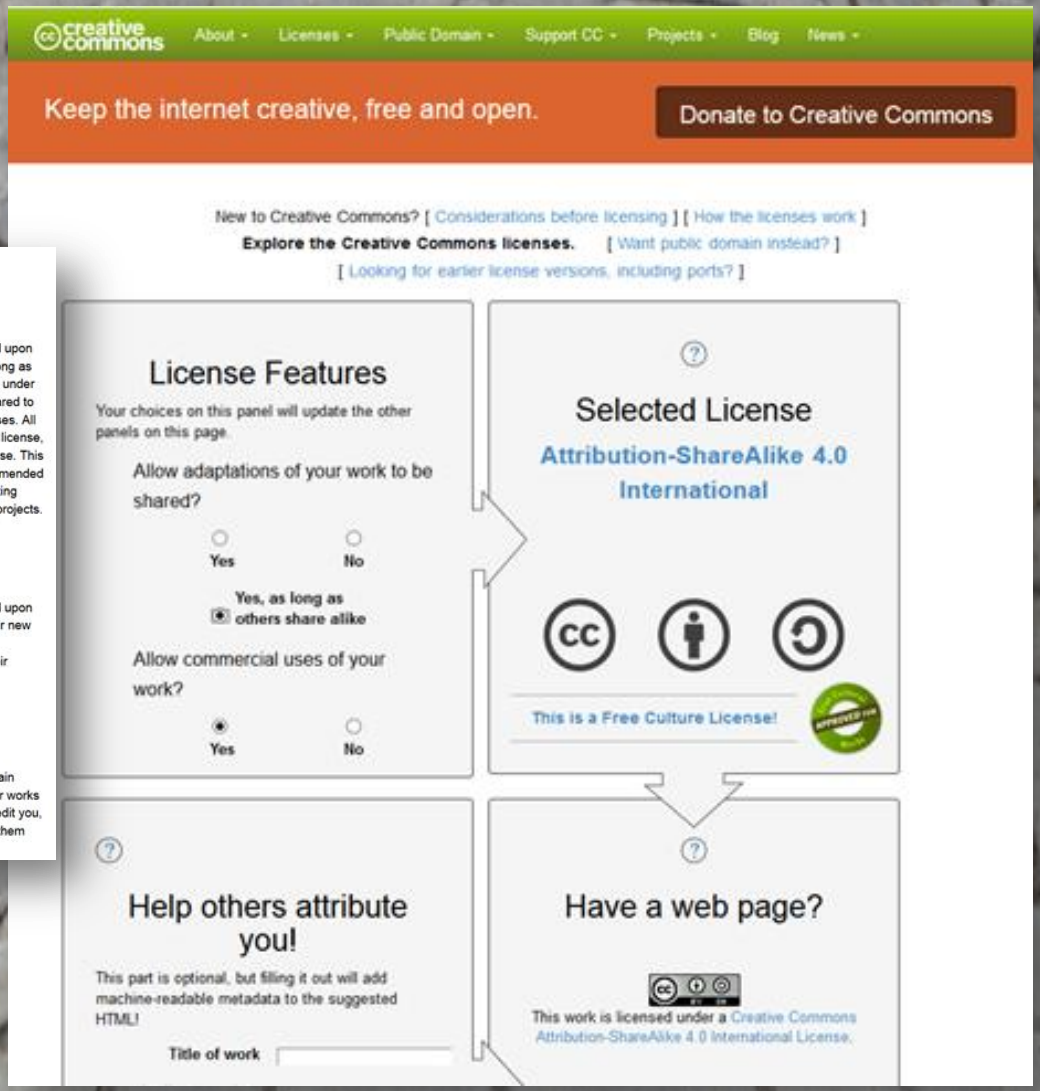
My copyright report, adopted by an overwhelming majority in the European Parliament, lists goals like:

- a new exception for content mining
- the harmonisation of exceptions for research and education
- simplifying cross-border and online projects
- new exceptions for libraries and archives
- legal protection of the public domain
- protection of exceptions and limitations from contractual override
- fully harmonising copyright terms at the lowest levels that currently exist in the EU
- a comprehensive set of users' rights

These reforms are within reach. But the proposals are heavily attacked by scientific publishers. In a situation where scientific publishers are among the most profitable businesses in the world, and universities are not just spending significant proportions of their budgets on licences, but also on navigating and negotiating terms of an overly complex copyright system, resources are unnecessarily diverted from creating sound evidence.

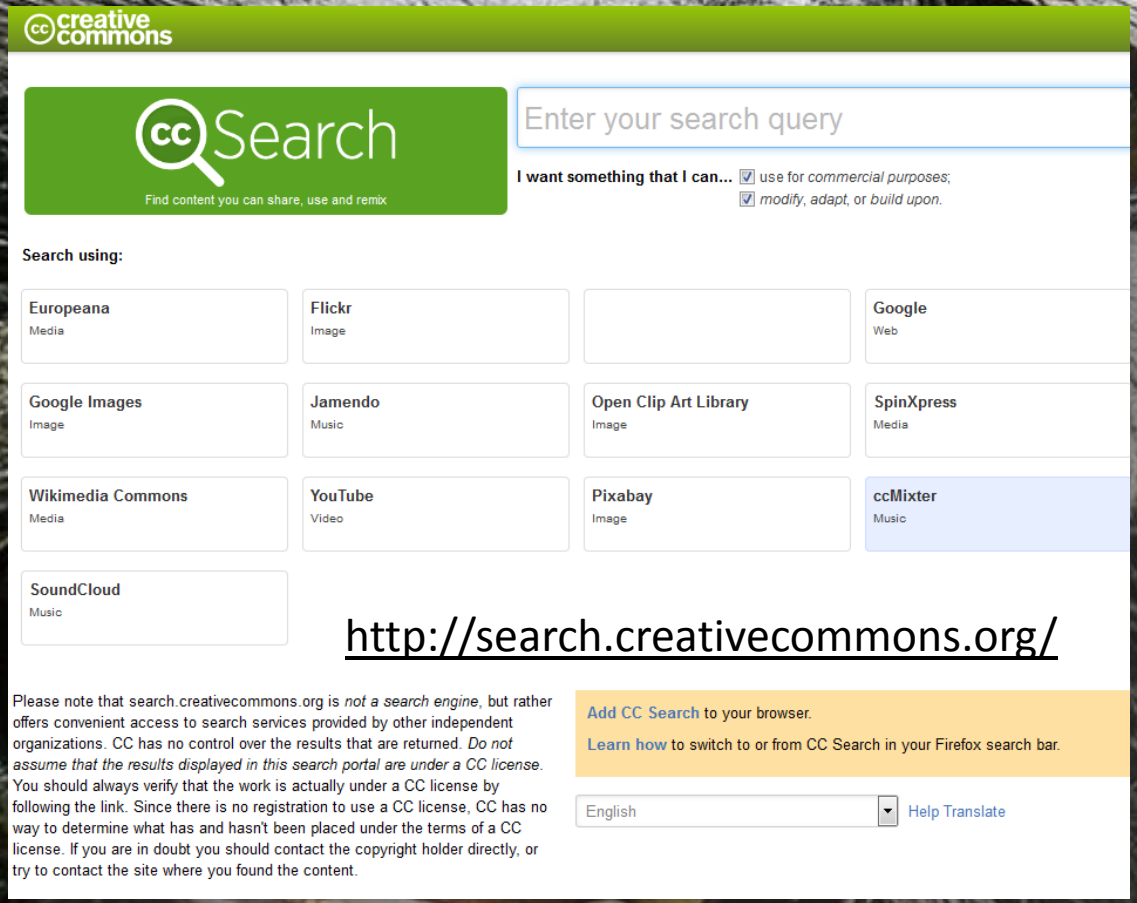
Open rights / 4



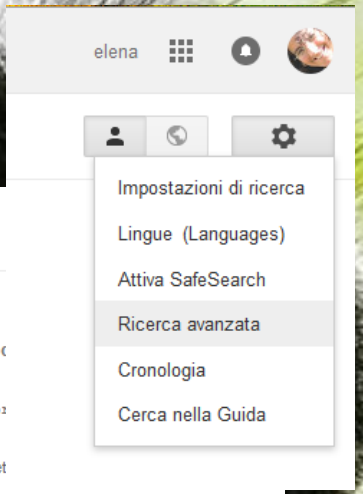


http://creativecommons.org/choose/?lang=en

[come cercare immagini free]



[come cercare immagini free]



Ricerca avanzata

Trova pagine web che contengono...

Per fare questo nella casella c

tutte queste parole:	unito media video aliprandi	Digita le parole importanti: labrador
questa esatta parola o frase:		Racchiudi le parole esatte tra virgolet
una qualunque di queste parole:		Digita OR tra tutte le parole che vuoi: miniatura OR standard
nessuna di queste parole:		Anteponi il segno - (meno) alle parole da escludere: -roditore, - "Jack Russell"
numeri da:	a	Inserisci due punti (..) tra i numeri e aggiungi un'unità di misura: 10..35 kg, € 300..€ 500, 2010..2011

Poi limita i risultati per...

lingua:	tutte le lingue	Trova le pagine nella lingua selezionata.
area geografica:	tutti i Paesi	Trova le pagine pubblicate in un'area geografica specifica.
ultimo aggiornamento:	in qualsiasi data	Trova le pagine aggiornate nel periodo di tempo specificato.
sito o dominio:		Cerca in un sito (come wikipedia.org) o visualizza soltanto i risultati relativi a un dominio, come .edu, .org o .gov
termini che compaiono:		Cerca i termini nell'intera pagina, nel titolo della pagina, nell'indirizzo web o nei link che rimandano alla pagina desiderata.
SafeSearch:		Indica a SafeSearch se filtrare i contenuti sessualmente espliciti.
tipo di file:		Trova le pagine nel formato che preferisci.
diritti di utilizzo:	risultati non filtrati in base alla licenza	Trova le pagine che puoi utilizzare liberamente.

- risultati non filtrati in base alla licenza
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- risultati utilizzabili o condivisibili liberamente, anche a scopo commerciale
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- risultati utilizzabili, condivisibili o modificabili liberamente, anche a scopo commerciale

Ricerca avanzata

Open Data

Open data is data that meets the criteria of intelligent openness. Data must be accessible, useable, assessable and intelligible

Royal Society, Glossary, Science as an open enterprise, [report] 2012

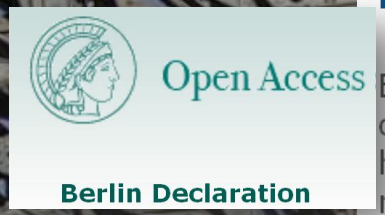
Web futuro=web di dati

Raw data now, 2009 e altri due video

Linked [open] data

http://linkeddata.org/

Open research data



Definition of an Open Access Contribution

Establishing open access as a worthwhile procedure ideally requires the active commitment of each and every individual producer of scientific knowledge and holder of cultural heritage. Open access contributions include original scientific research results, raw data and metadata, source materials, digital representations of pictorial and graphical materials and scholarly multimedia material.

riviste cartacee:
solo **sintesi** dell'esperimento (**articolo**)
web:
si può **integrare con intero dataset**
(visione più completa)

SONO I DATI SU CUI SI BASA L'ARTICOLO

- **NON i dati della ricerca applicata**
- **NON i dati correlati ai brevetti**
- **NON dati personali**
- **NON dati confidenziali**
- **NON segreti industriali**

Horizon 2020: open by default

Login | Create Ar

European Commission

HORIZON 2020

The EU Framework Programme for Research and Innovation

European Commission > Horizon 2020

Open Access: shall apply

Open Data: may

Article 43

Exploitation and dissemination of results

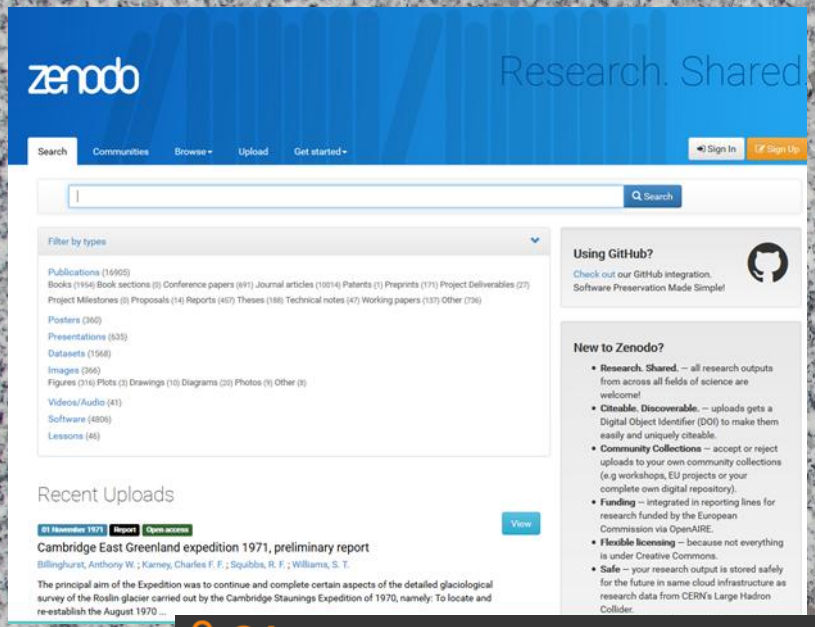
With regard to the dissemination of results through scientific publications, open access shall apply under the terms and conditions laid down in the grant agreement. Costs relating to open access to scientific publications that result from research funded under Horizon 2020, incurred within the duration of an action, shall be eligible for reimbursement under the conditions of the grant agreement. With due regard to Article 18 of Regulation (EU) No 1291/2013, the grant agreement shall not stipulate conditions regarding open access to publications which would result in additional publishing costs after the completion of an action.

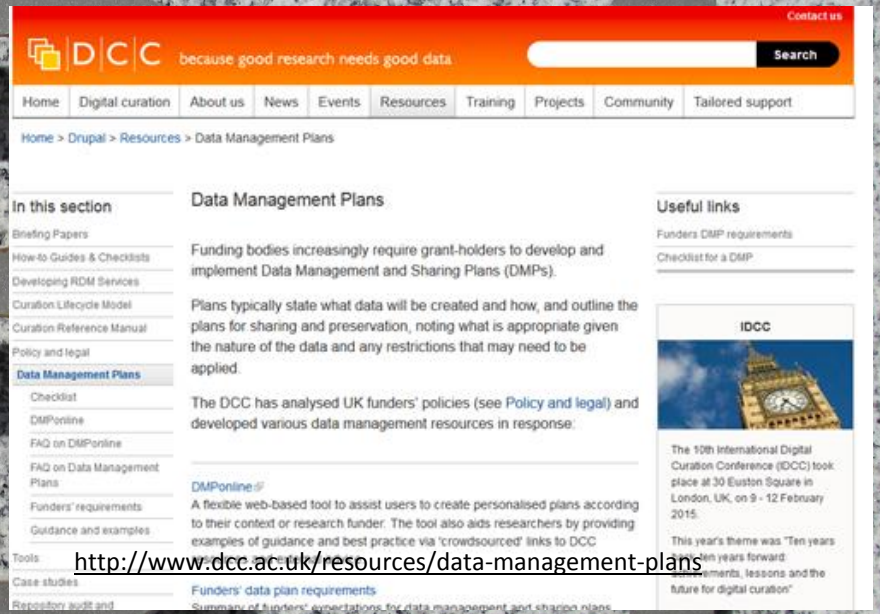
With regard to the dissemination of research data, the grant agreement may, in the context of the open access to and the preservation of research data, lay down terms and conditions under which open access to such results shall be provided, in particular in ERC frontier research and FET (Future and Emerging Technologies) research or in other appropriate areas, and taking into consideration the legitimate interests of the participants and any constraints pertaining to data protection rules, security rules or intellectual property rights. In such cases, the work programme or work p
nation of research data through

DATI SU CUI SI BASA L'ARTICOLO, NON inediti

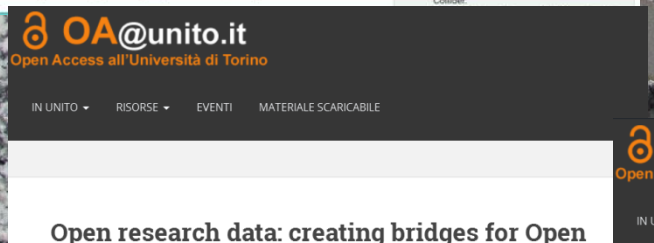
http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/rules_participation/h2020-rules-participation_en.pdf

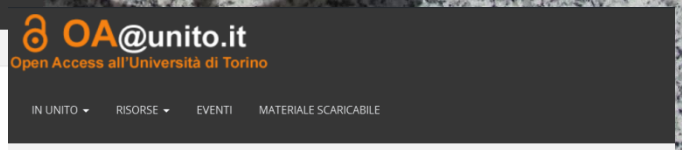
Open Research Data in pratica





http://www.dcc.ac.uk/resources/data-management-plans





http://www.oa.unito.it/new/open-research-data-creating-bridges-for-open-science-open-con2015-satellite-event/

Open research data: potenzialità

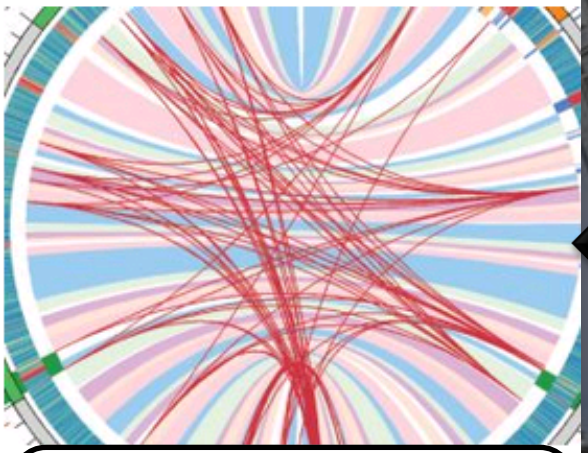
THE ROYAL SOCIETY

Science as an open enterprise

Final report - Science as an open enterprise

The Science as an open enterprise report highlights the need to grapple with the huge deluge of data created by modern technologies in order to preserve the principle of openness and to exploit data in ways that have the potential to create a second open science revolution.

Exploring massive amounts of data using modern digital technologies has enormous potential for science and its application in public policy and business. The report maps out the changes that are required by scientists, their institutions and those that fund and support science if this potential is to be realised.



The Spanish Cucumber E. Coli. This genome was analysed within weeks of its outbreak because of a global and open effort; data about the strain's genome sequence were released freely over the internet as soon as they were produced.

Areas for action

Six key areas for action are highlighted in the report:

- Scientists need to be more open among themselves and with the public and media
- Greater recognition needs to be given to the value of data gathering, analysis and communication
- Common standards for sharing information are required to make it widely usable
- Publishing data in a reusable form to support findings must be mandatory
- More experts in managing and supporting the use of digital data are required
- New software tools need to be developed to analyse the growing amount of data being gathered

https://royalsociety.org/policy/projects/science-public-enterprise/report/

Possono creare una nuova RIVOLUZIONE

INTELLIGENT OPENNESS:

dati devono essere ricercabili, accessibili [STANDARD, INTEROPERABILITÀ]

Open Research Data - potenzialità

http://goo.gl/8Cuvm

RITORNO SUGLI INVESTIMENTI
+
CREAZIONE NUOVO LAVORO

Why should we care? Because, just as the World Wide Web has transformed our lives and economies, so this new data wave will matter eventually to every one of us, scientist or not. In the first instance, developing the tools, systems and businesses required for this will create jobs, revenues and economic growth; the cost – growing over time to something on the order of 5 per cent of research budgets – is large but, if the market incentives are set correctly, will be shared between the private and public sector. Already, economists have shown how scientific investments of a narrower scope have yielded great returns: For instance, in the US, one study estimated the $13 billion in government spending on the Human Genome project and its successors has yielded a total economic benefit of about $1 trillion. A British study of its public economic and social research database found that for every £1 invested by the government, an economic return of £5.40 resulted. Even bigger numbers have been circulating about the impact of Big Data, a related trend. However it is measured, the economic and social benefits will be large.

RDA, The data harvest, Dec 2014

PMI immetterebbero nuovi prodotti 2 anni prima se avessero accesso alla ricerca

Access to research and technical information in Denmark, 2011

Open data? $$$/€€€

But now we see this binary division as much too simple. The winners in today's economy are the ones who will best be able to integrate an additional factor of production: data. Data is the information needed to understand where markets, the economy, even the weather, are headed, so we can make good business and personal decisions. Better data improves the productivity of both labour and capital. Better data means increasing labour productivity, which ultimately means a higher standard of living, or more leisure, or both.[8]

Table 1: Europe is behind in the data race
*gigabytes per month

Rank	Country	Estimated per capita usage of data 2014*
1	South Korea	67.5
2	United States	64.7
3	Canada	55.6
4	United Kingdom	35.2
5	Japan	28.9
6	France	25.1
7	West Europe average**	24.0
8	Germany	19.7
9	Spain	16.8
10	Brazil	11.3
11	Italy	11.2
11	China	6.8
12	India	0.8

Sources: Cisco, [illegible]

The Lisbon Council, 2014 http://goo.gl/FjKySD

McKinsey report.[1] Our research suggests that seven sectors alone could generate more than $3 trillion a year in additional value as a result of open data, which is already giving rise to hundreds of entrepreneurial businesses and helping established companies to segment markets, define new products and services, and improve the efficiency and effectiveness of operations.

MCKinsey, Open Data, 2013 http://goo.gl/mTFXvv

We calculate that public sector information already generates €32 billion of economic activity each year. This package would more than double that - – to around €70 billion.

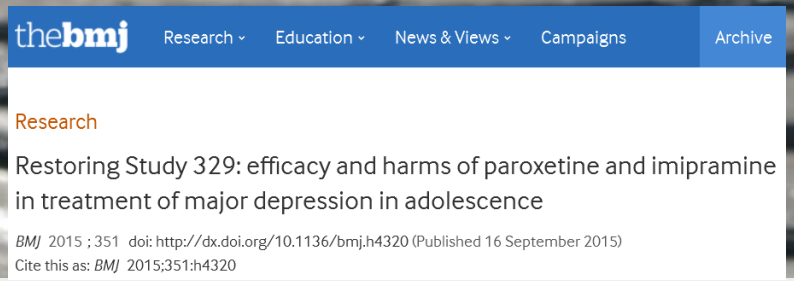
Neelie Kroes, blog, 12 Dec 2011, http://goo.gl/dY9CrB

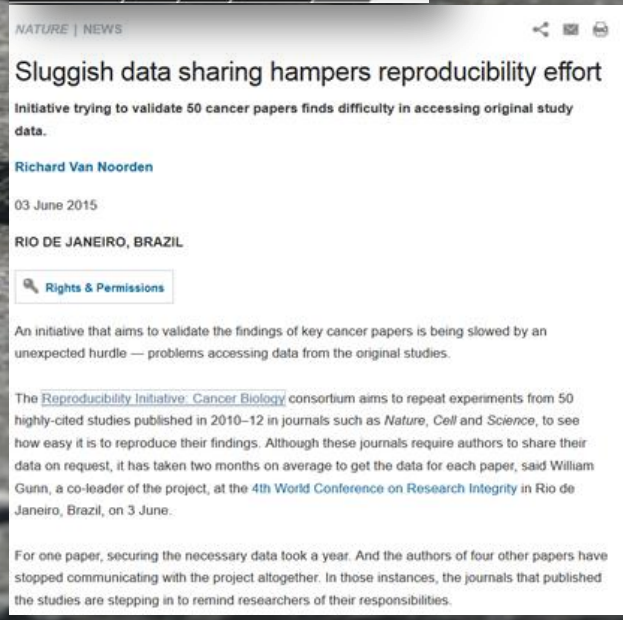
Open research data – I vantaggi / 1

…una scienza più solida…

-meglio basarsi sui DATI che sulla loro interpretazione
[data make up per pubblicare…]
-confrontare/dibattere con i propri dati
- creare nuova conoscenza aggiungendo i propri dati

Open research data - I vantaggi / 2
RIPRODUCIBILITÀ





- scienza è approssimarsi alla verità,
  NON pubblicare risultati eclatanti (e magari falsi)
  - oggi replicabilità tende a zero
- la medicina rischia di distruggere la civiltà se le spese per una sanità inefficiente basata su nessuna o limitata o gonfiata prova scientifica continuano a salire…
- sono essenziali esperimenti su reale efficacia/benefici

J. Ioannidis, Why Science Is Not Necessarily Self-Correcting, Perspectives on Psychological Scienc nov. 2012, 7 (6):645-654

Open research data - I vantaggi / 3

il valore del RIUSO…
costruire percorsi inediti
grazie ai dati aperti

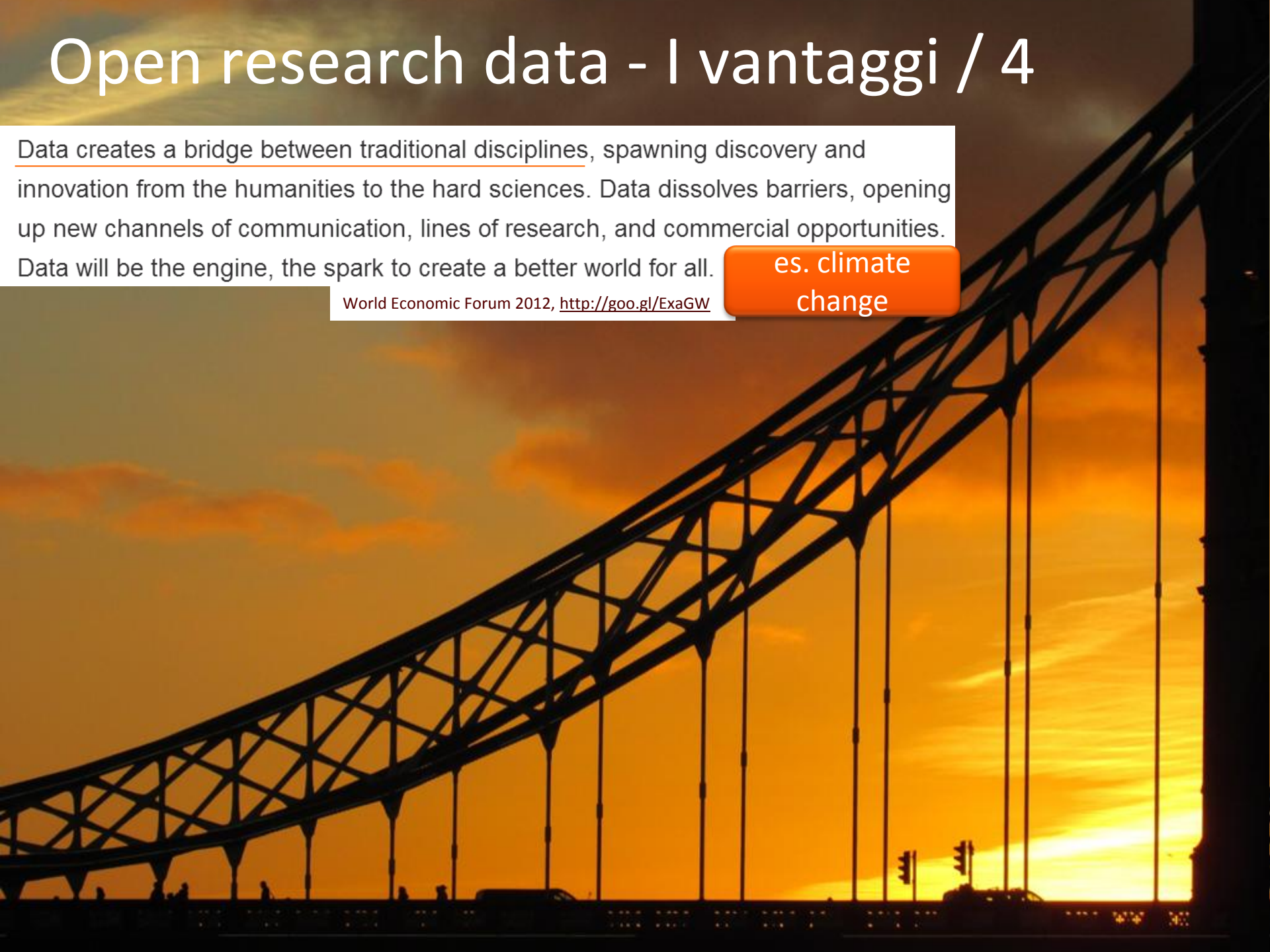
«the coolest thing to do with your data will be thought of by someone else»

Open research data - I vantaggi / 4

Data creates a bridge between traditional disciplines, spawning discovery and innovation from the humanities to the hard sciences. Data dissolves barriers, opening up new channels of communication, lines of research, and commercial opportunities. Data will be the engine, the spark to create a better world for all.

World Economic Forum 2012, http://goo.gl/ExaGW

es. climate change



Open research data – I vantaggi / 5

…pubblicando anche i dati negativi si evitano duplicazioni inutili…

Open research data – I vantaggi / 6

Sharing Detailed Research Data Is Associated with Increased Citation Rate

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0000308

Heather A. Piwowar, Roger S. Day, Douglas B. Fridsma

Published: March 21, 2007 • DOI: 10.1371/journal.pone.0000308

Article | Authors | Metrics | Comments | Related Content

Abstract

Background

Sharing research data provides benefit to the general scientific community, but the benefit is less obvious for the investigator who makes his or her data available.

Principal Findings

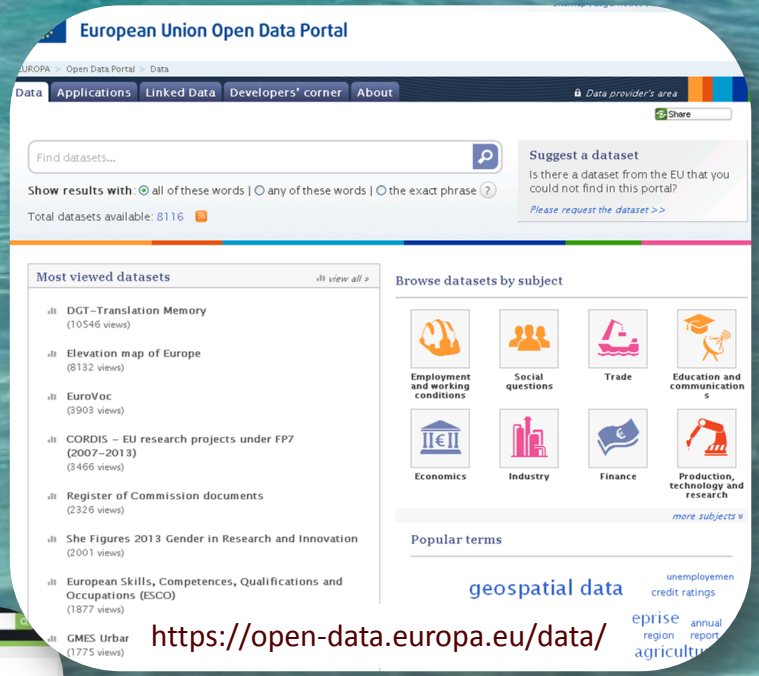
We examined the citation history of 85 cancer microarray clinical trial publications with respect to the availability of their data. The 48% of trials with publicly available microarray data received 85% of the aggregate citations. Publicly available data was significantly (p=0.006) associated with a 69% increase in citations, independently of journal impact factor, date of publication, and author country of origin using linear regression.

Significance

This correlation between publicly available data and increased literature impact may further motivate investigators to share their detailed research data.

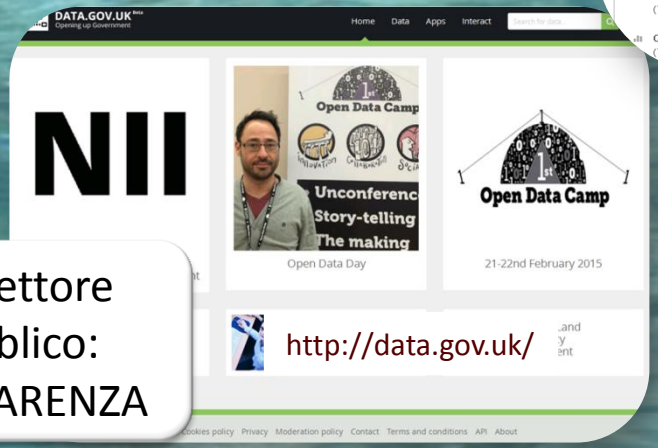
Open Data / usi 1

http://www.dati.gov.it/



https://open-data.europa.eu/data/

http://www.data.gov



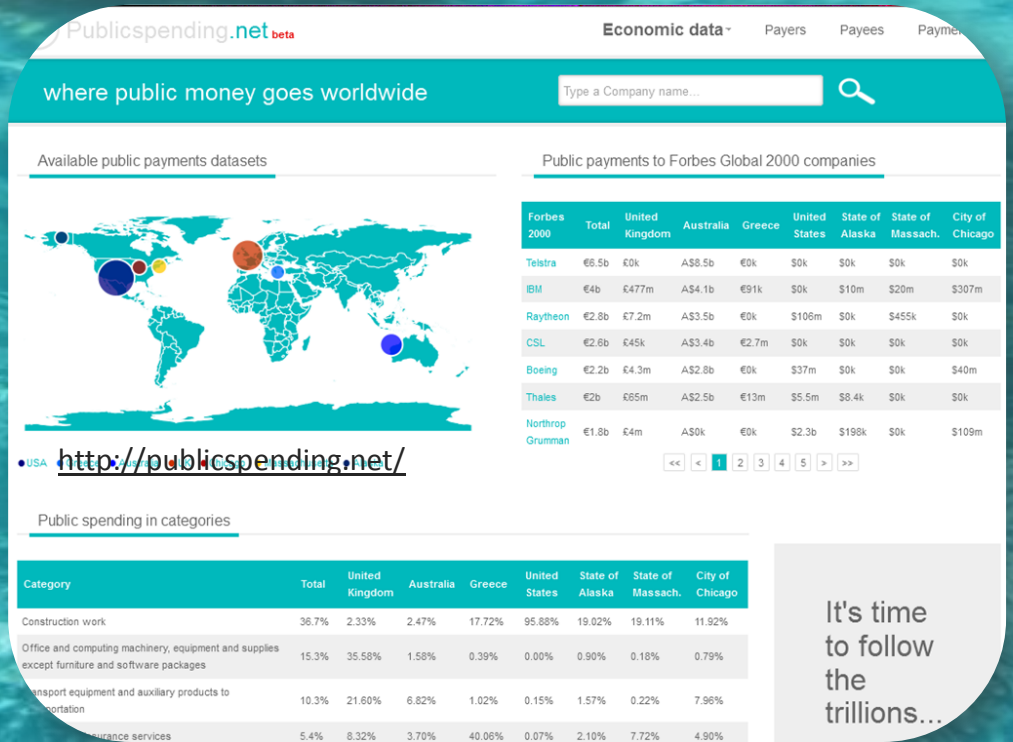
http://data.gov.uk/

nel settore pubblico: TRASPARENZA

Open Data / usi 2

https://openspending.org/

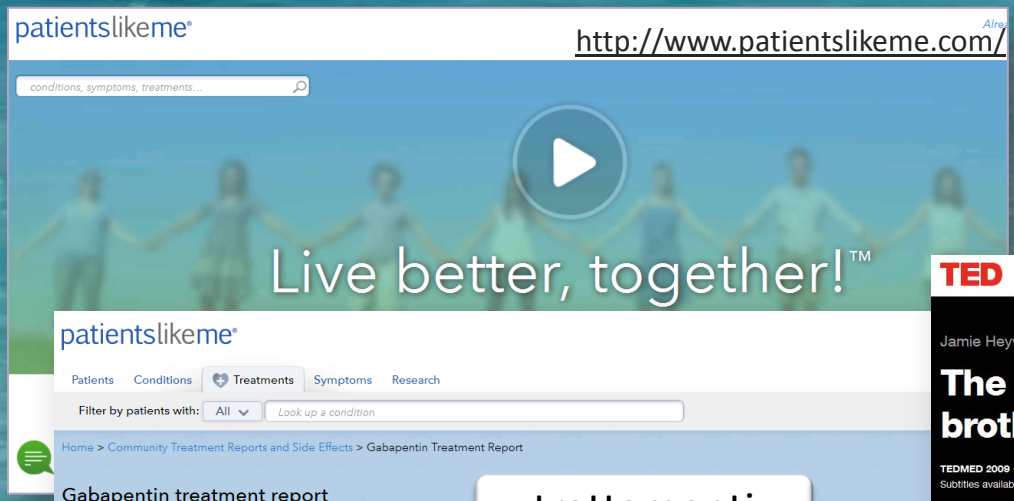
RIUSO dei dati attraverso App

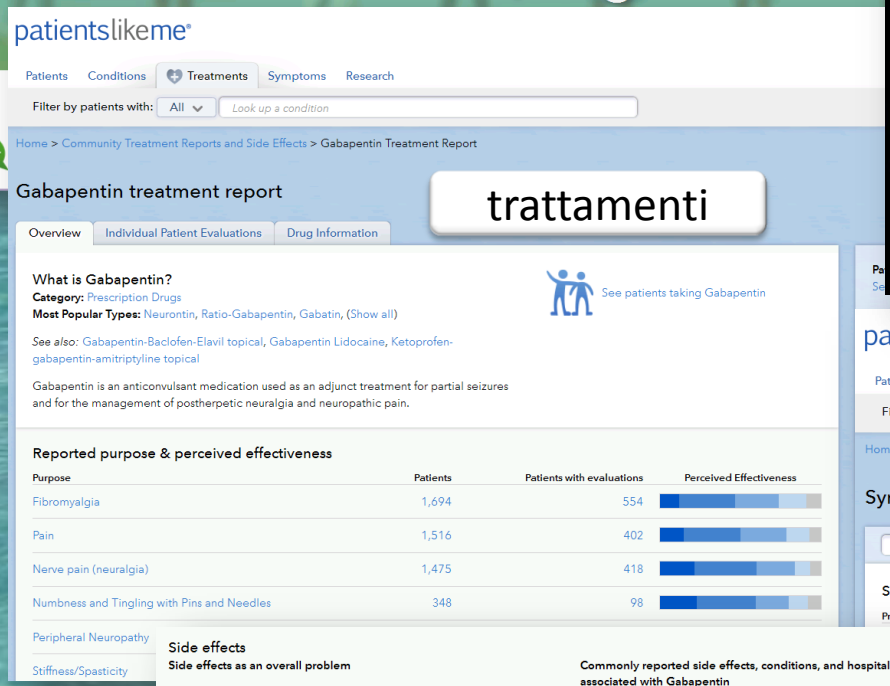


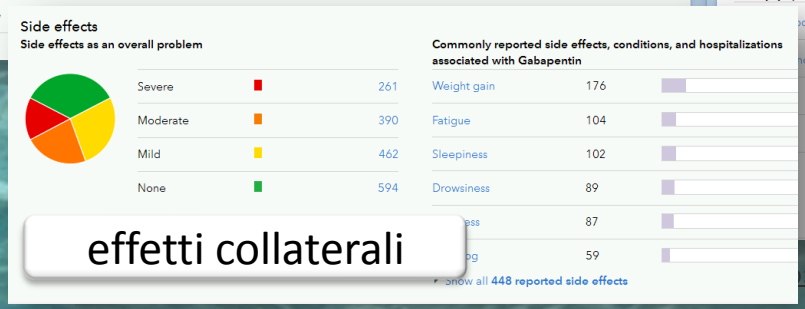
http://publicspending.net/

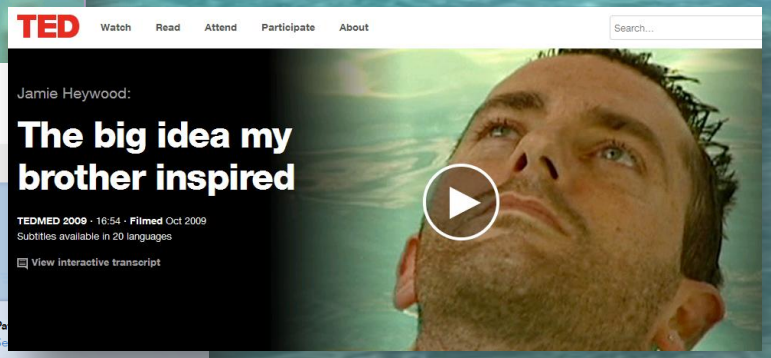
Open Data / usi 3

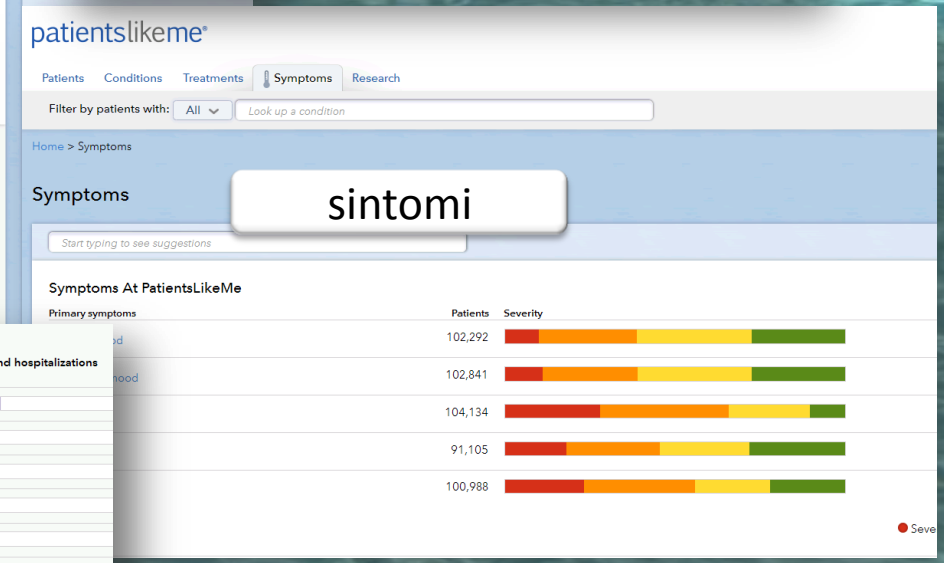
http://www.patientslikeme.com/





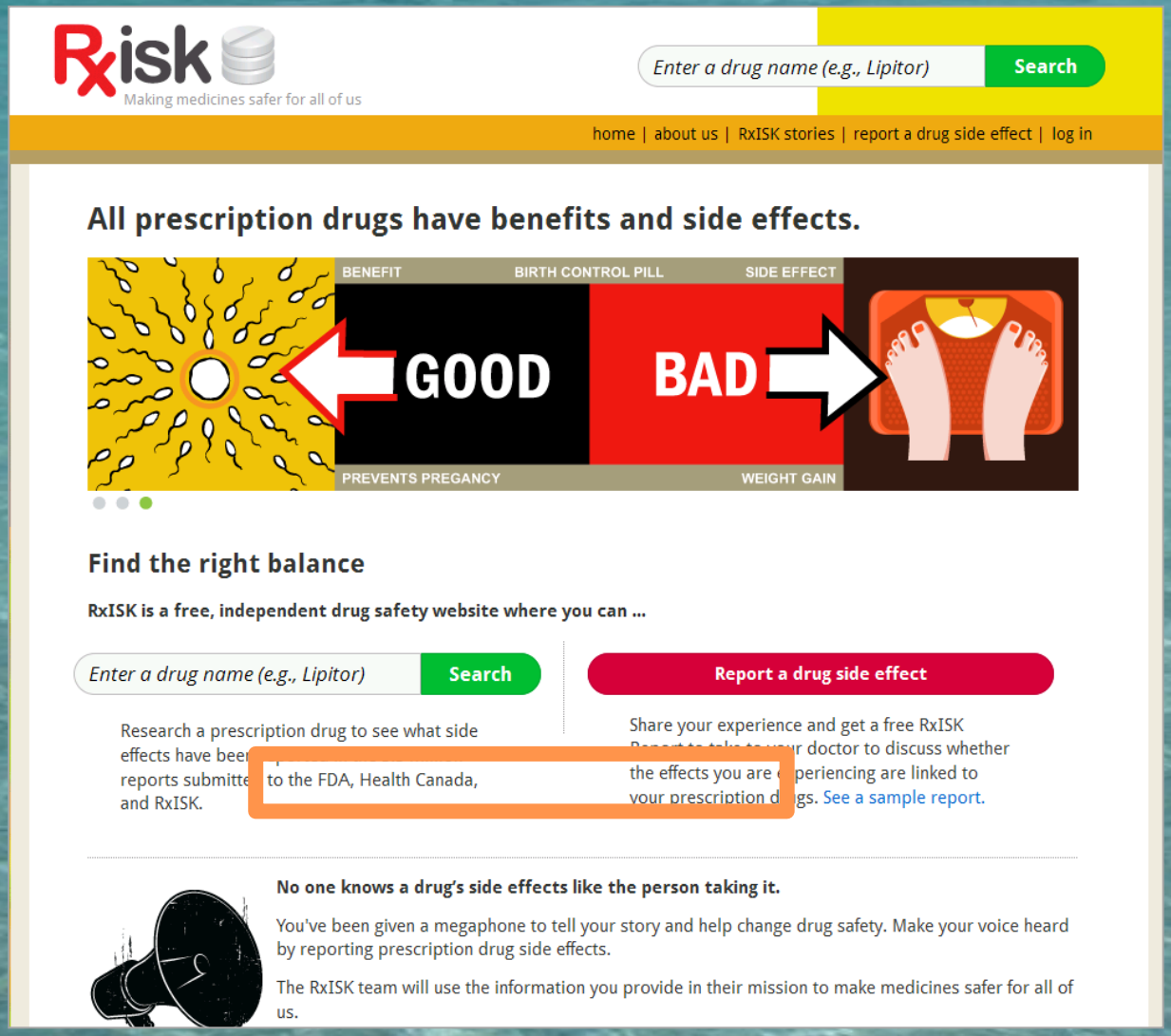






://www.ted.com/talks/jamie_heywood_the_big_idea_my_brother_inspired

Open Data / usi 4



https://www.rxisk.org/

Openness

The best thing about **Internet** is that it's **open.** In every field **it let us share and innovate.**

In science, **OPENESS IS ESSENTIAL.**

Open science doesn't mean ignoring economic reality.
Of course **we need business models to be sustainable**.
But that **doesn't mean we have to carry on doing things the way they have always been done.**
So, wherever you sit in the value chain, wheter you're a researcher or an investor or a policy maker,
my message is clear:
let's invest in collaborative tools that let us progress…

Let's tear down the walls that keep learning sealed off.

And let's make science open.

N. Kroes, Let's make science open, giugno 2012

…a fra poco

elena.giglia@unito.it