

***The library, the digital and the  
quest for open access***

UFP's Erasmus Staff Week for Librarians

Workshop on 20<sup>th</sup> March, 2013

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# The Workshop

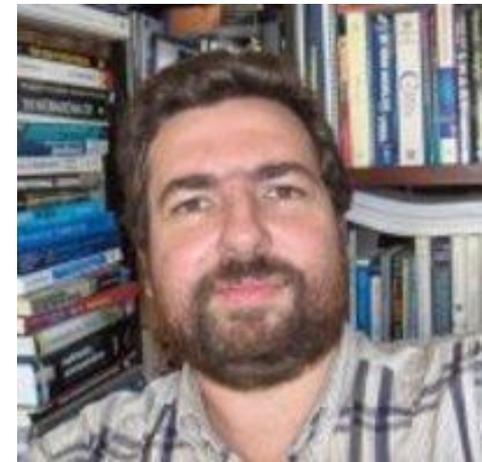
- Title:  
***The library, the digital and the quest for open access***

*The growing number of information sources combined with available digital content and the widespread of computers and networks are putting pressure on how libraries organize and compete with such a new, brave (and savage) world.*

*Facing new demands from society, and taking the university libraries context, a number of issues are introduced for discussion as the case of digital libraries and open access regarding its impact for both authors and publishers.*

# Workshop conducted by

- Luis Borges Gouveia is an *Associate Professor* of Knowledge Management, Science and Technology Faculty at *University Fernando Pessoa*
- Among his research interests are *the impact of digital information and information society issues in our day-to-day life*.
- He publishes 12 books and was involved in several projects concerning the use of information in e-learning and e-government settings
  - More information is available at <http://about.me/lbgouveia>

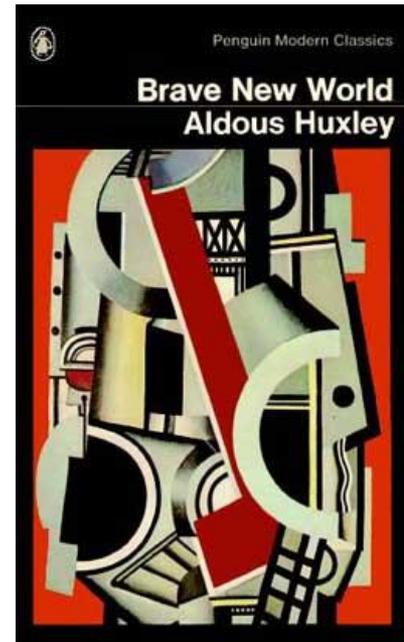
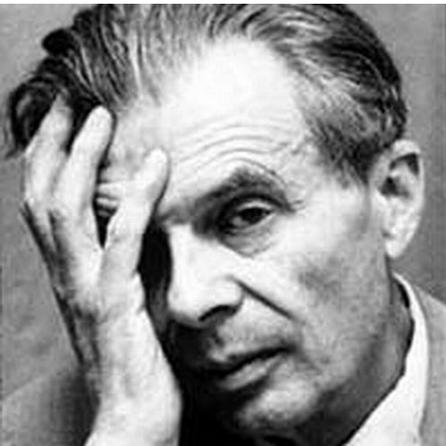


# Schedule, Wednesday 20<sup>th</sup> March

9:30 – 11:00	Workshop <i>The library, the digital and the quest for open access</i> - Discuss <b>digital challenges</b>
11:00 – 11:30	Coffee break
11:30 – 13:00	Workshop <i>The library, the digital and the quest for open access</i> - Discuss <b>open access</b>
13:00 – 14:30	Lunch break (individually)
14:30 – 16:00	Available materials to work with...

# Internet as *a brave new world*

- As stated Aldous Huxley (1894-1963), *the defence of a Paradise-engineering world setting can not be a viable substitution for people and its emotional links* (he is in favour of universal happiness, not a perfect and pure true)
  - See more at <http://www.huxley.net/>



# The easy part...



Taking notes in a class



Reading cached e-mail during a flight



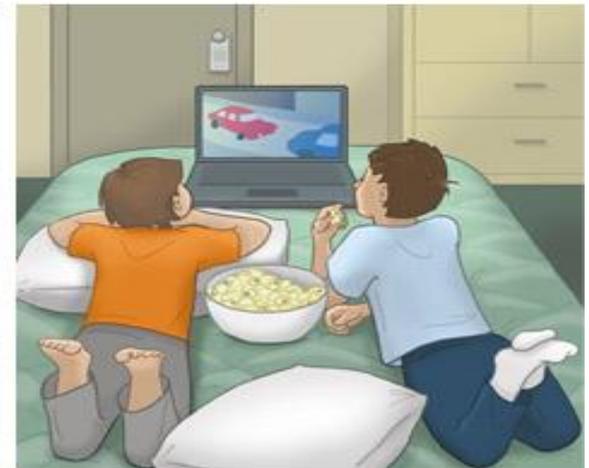
Updating patient records between appointments



Browsing the web while reclining on a sofa



Giving a business presentation



Watching a movie in a hotel room

# Some ideas of such a world...

- Highly networked
- Fast paced
- Ongoing change
- Mutating workplace (leisure also?...)
- Do it now, everywhere, with available tech, no time waste, and resources efficiency
- Action
  - Collaboration oriented
  - Life long learning
  - Self learning
- Be prepared for
  - share, cocreate, be creative, reuse, and stay with high mobility

# Digital challenges



# A definition...

- Describes any system based on discontinuous data or events.
  - Computers are digital machines because at their most basic level they can distinguish between just two values, 0 and 1, or off and on. There is no simple way to represent all the values in between, such as 0.25.
  - All data that a computer processes must be encoded digitally, as a series of zeroes and ones.
- The opposite of digital is *analog*.
  - From <http://www.webopedia.com/TERM/D/digital.html>

# Spread the word (on that case, the bit)

- Bit: binary digit
- First computer, then networks
- First some data, then many data
  - On such days almost all the data that matters
- First some information, then those information we need to access
  - On such days almost all the information with value
- And knowledge?
  - We are working on it...

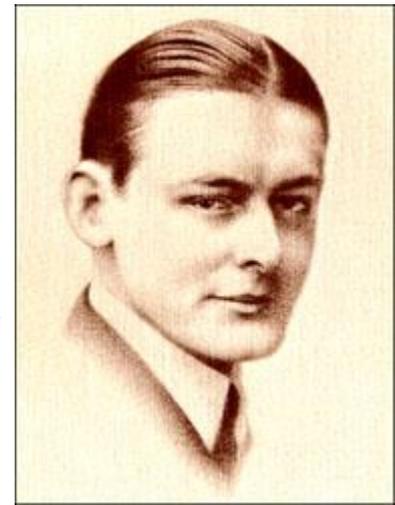
# **T. S. Eliot (1888-1965): The Rock (1934)**

*Where is the Life we have lost in living?*

*Where is the wisdom we have lost in  
knowledge?*

*Where is the knowledge we have  
lost in information?*

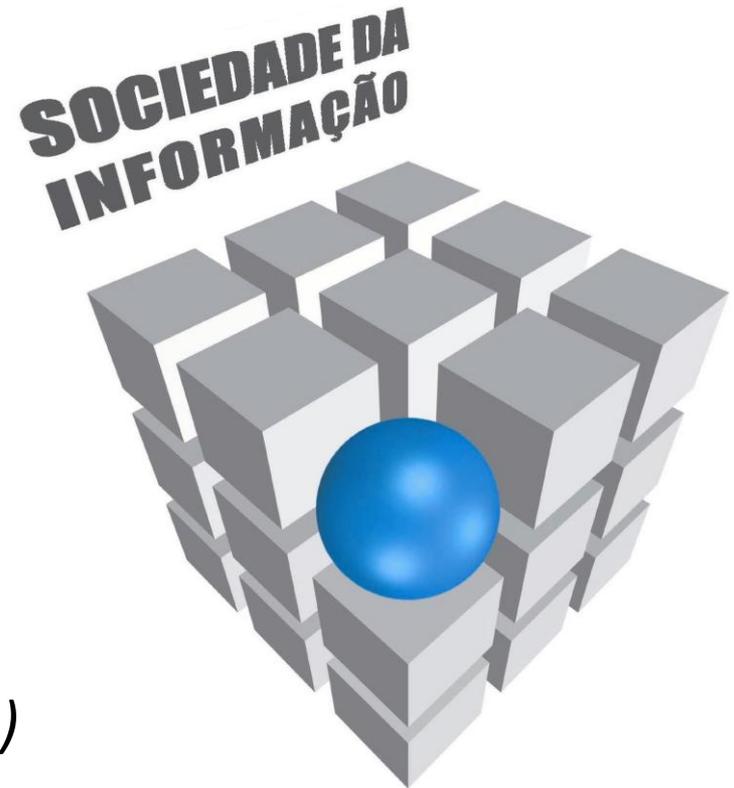
<http://www.wisdomportal.com/Technology/TSEliot-TheRock.html>



# Information society

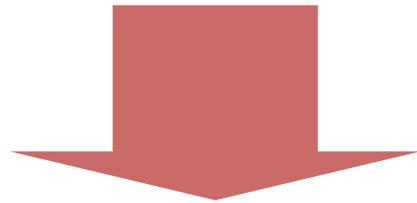
- *a society where information and communication technology are the primary resource to exchange digital information, and to support interaction between individuals using practices and methods in permanent change*

*(Gouveia and Gaio, 2004)*

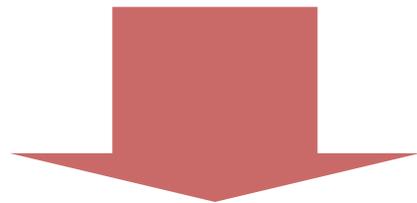


# Information society

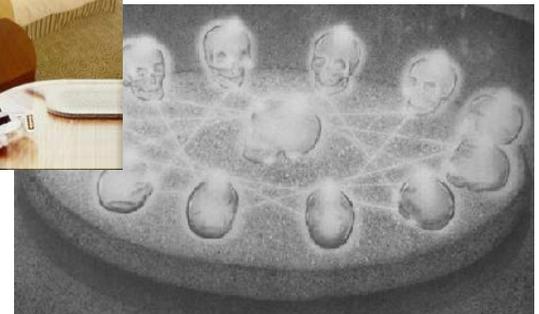
**Heavy use of ICT  
(computers and networks)**



**Growing use of digital**



**Network organisation**

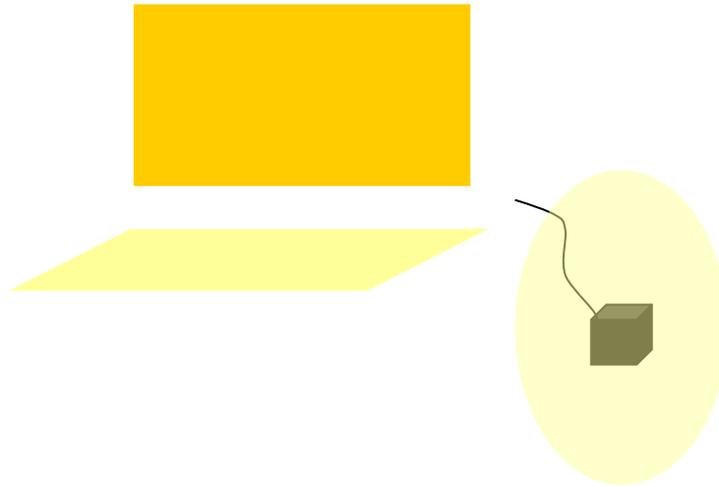


Once upon a time...

# the computer



# The computer without a mouse!



The computer without a mouse! ... How to use it?



The computer without a keyboard!



The computer without keyboard!... How to  
use it?



# The computer without monitor!

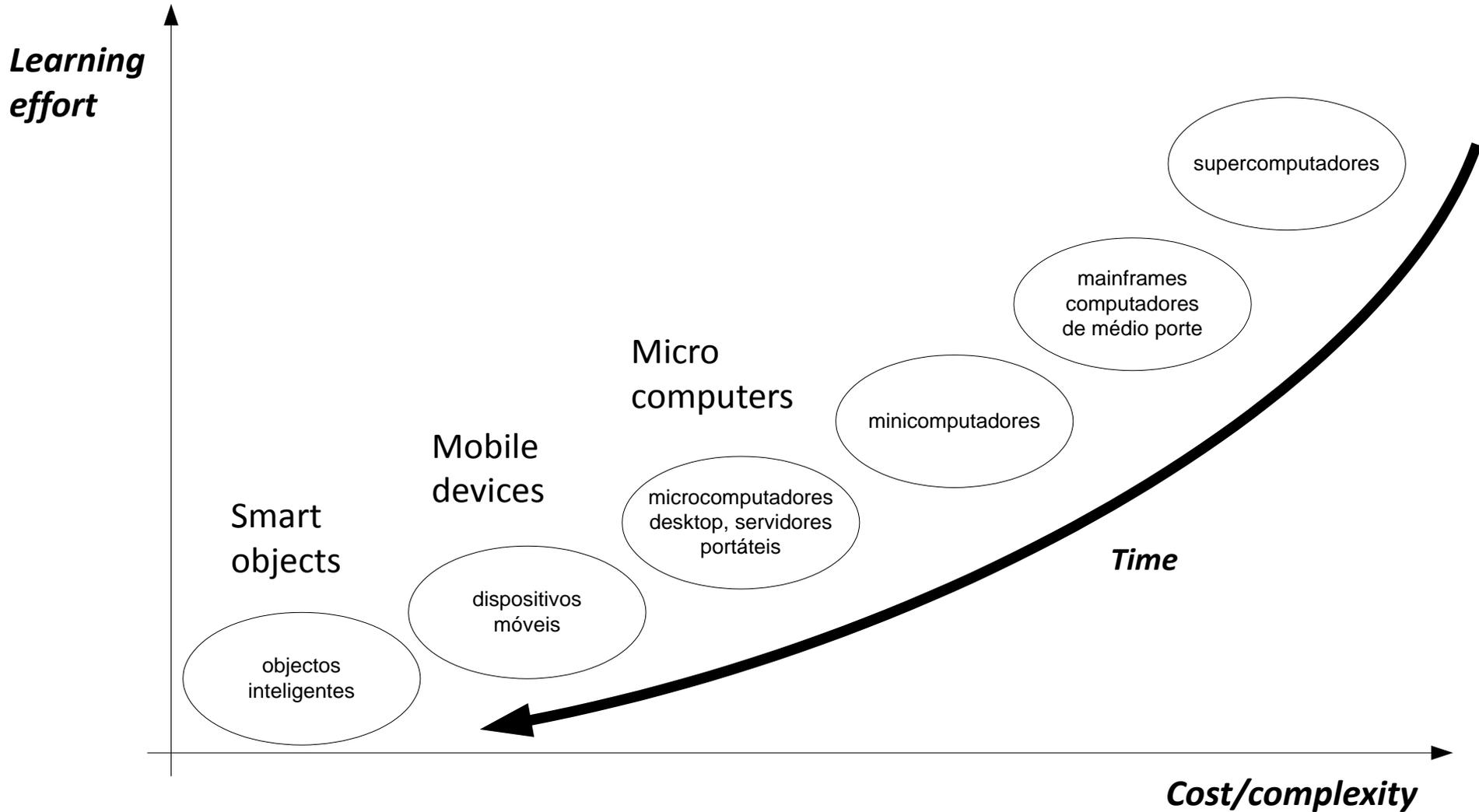


But... Where is the computer!

But... Where is the computer!



# But... Where is the computer!



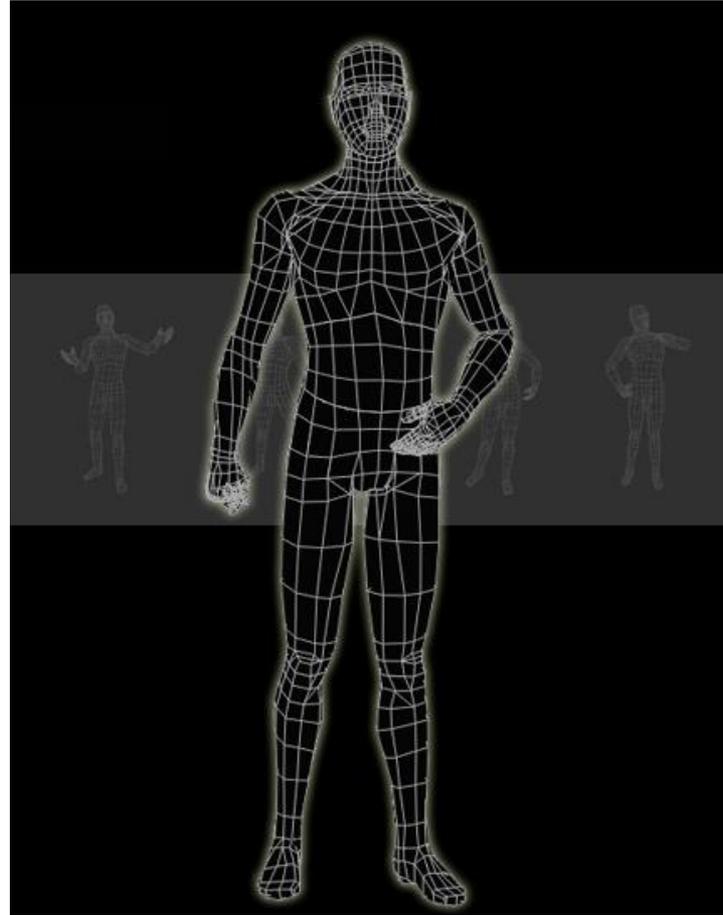
# But... Where is the computer!

- Networked hidden  
and
- Transaction related

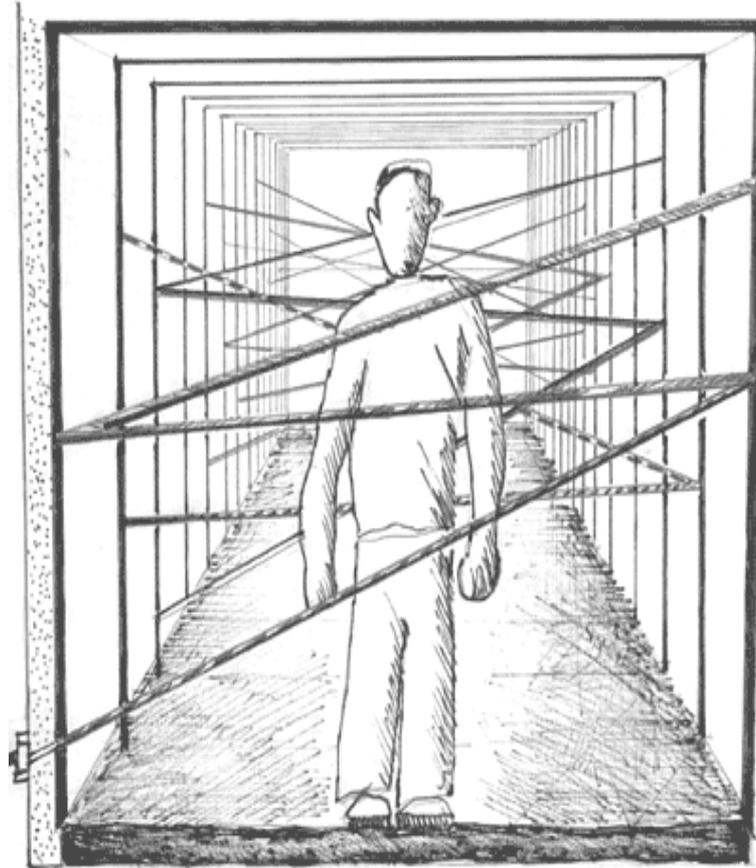
*“somewhere among us”  
Make us remember some  
religious stuff*



# the digital and rich information environments



# The analogic and rich information environment



# From the analogic to the digital “world”

- **learn...**
  - In the analogic, memorise to learn
  - In digital, forget to learn
- **work...**
  - In the analog, take time to work
  - In the digital, work without taking time



# Some remarks

- With digital support
  - Space is extended
  - Time becomes a scarce resource
  - i.e. more reach, less time
- People in organisations
  - Less government
  - More governance
  - i.e. Distance can be less a problem than time (time to know, time to be, time to do, time to react,...)
  - i.e. Networks, instead of leadership (?)

# Some remarks

- Again, the digital, time-space and people...
  - i.e. Increase information flux and interactions
- At the end of the day
  - Who pays the bill
  - Who controls it
- Has we take this into consideration when design our cities\* for (?)
  - Diversity
  - Proximity
  - Centrality
  - Knowledge
  - A given strategy

\*schools, libraries, ...

# A number of challenges

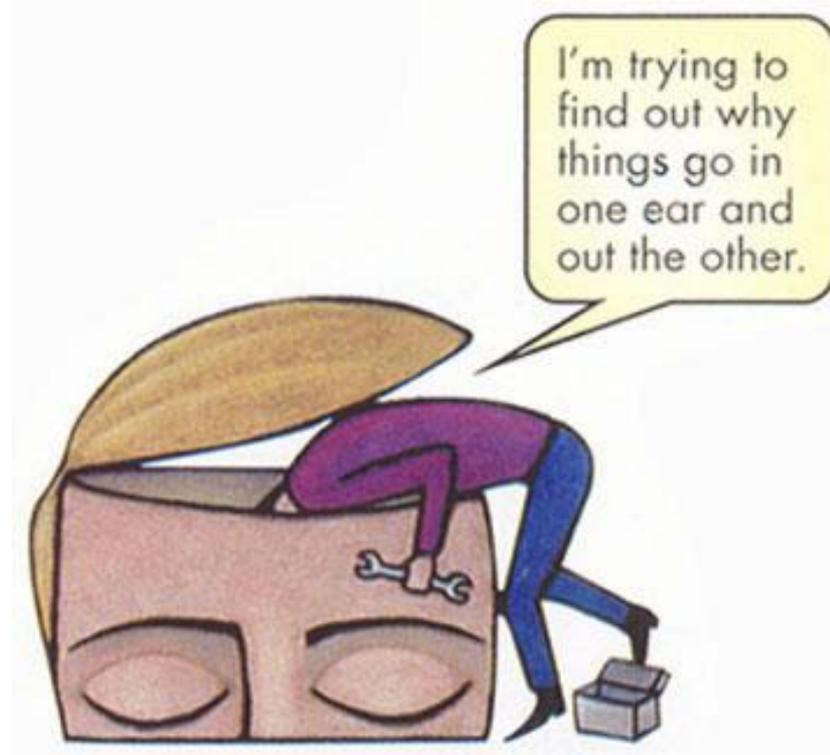
- People skills
- [Social, economical, digital] gap
- Engage people
- What to know and how (wisdon?...)

But also

- Sense human presence
- Collaboration support (not just sharing or cooperation)
- Information visualisation & Knowledge representation
- Linking the real and the virtual (location devices, senses and get rid of web based as first tech proposal...)

# Additional notes

- “perform” digital it is not just related with computers and networks
- We still be analogic, but our interaction are more digital than ever

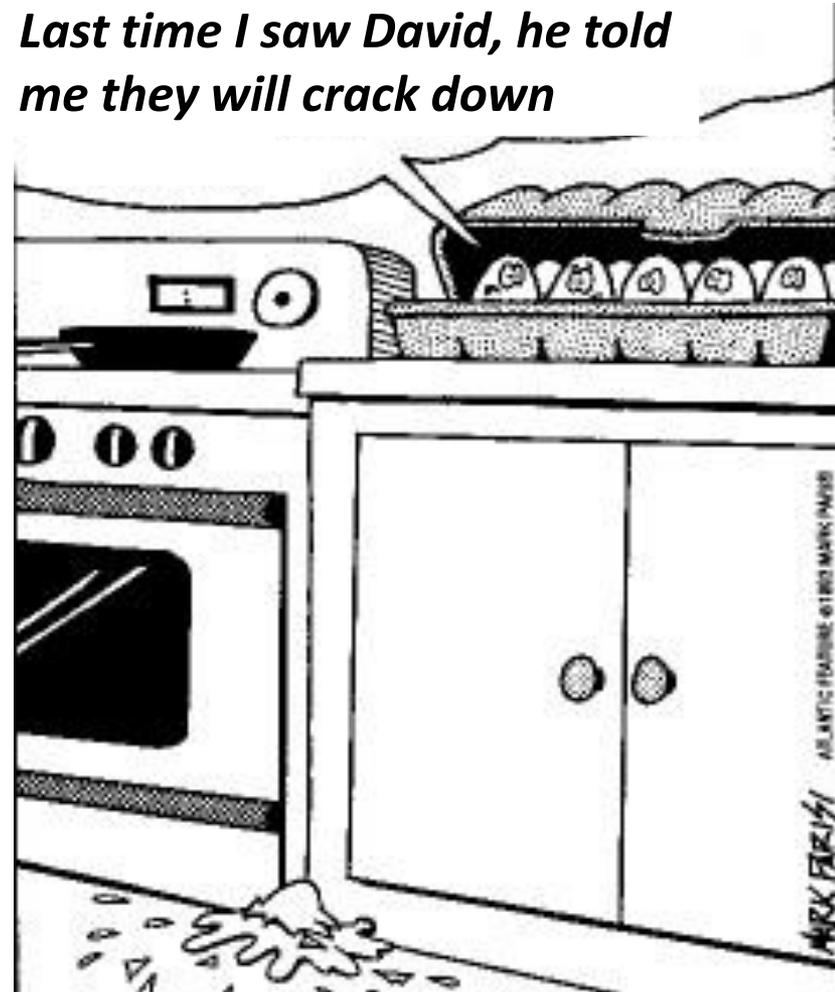


# Additional notes...

- Reinvent our notions of time and space
- Reinvent the function
- Deal with information challenges

***Do it networked!***

*Last time I saw David, he told me they will crack down*



# Additional notes

- Knowledge rate substitution
  - Something between 20% to 25%
  - This means that we need to replace knowledge every 4 – 5 years
- As a result, a territory must be also organised with the ability to produce knowledge
  - Need schools, research and focus
  - Additional concerns to add to energy, water and other stuff...
  - ...and what is the role for libraries?

# Additional notes

- A move from an offer oriented organisation to a client oriented strategy also has implications in the way we deal with information
  - New ways to deal with information discover
    - How to be discovered (offer side)
    - How to discover (client side)
  - Individuals can no more stand on their own ability; must rely mostly on their network connections
  - ...again, what is the role for libraries?

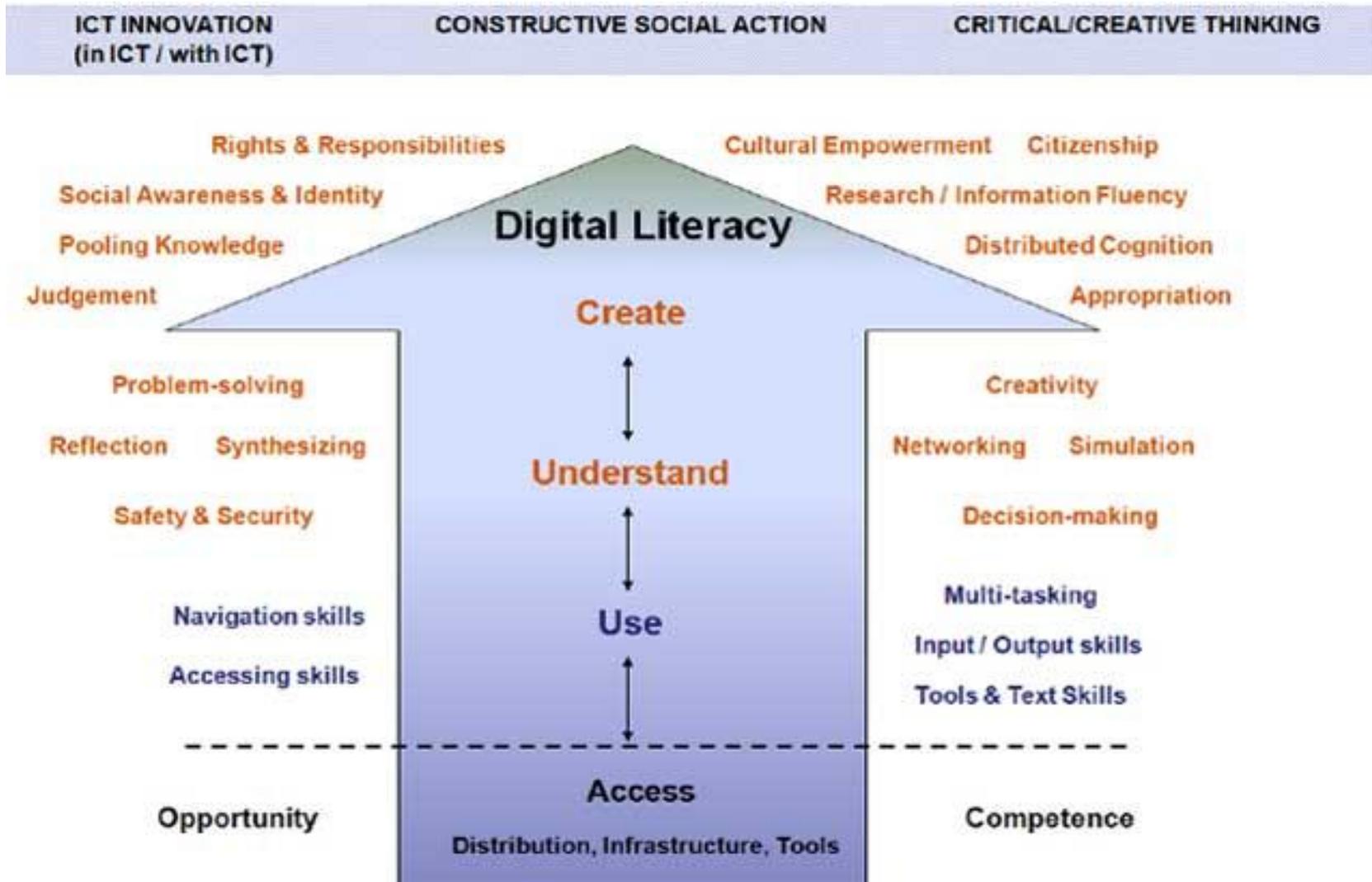
# Digital literacy

“Digital literacy is the ability to understand information and –more important –to evaluate and integrate information in multiple formats that the computer can deliver. Being able to evaluate and interpret information is critical [...] you can't understand information you find on the Internet without evaluating its sources and placing it in context”.

Paul Gilster

Read more at <http://www.ascd.org/publications/educational-leadership/nov97/vol55/num03/A-New-Digital-Literacy@-A-Conversation-with-Paul-Gilster.aspx>

# Being part of a bigger and complex set



# How much information?

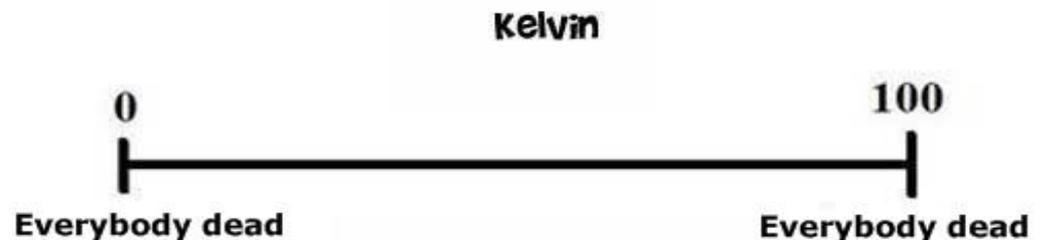
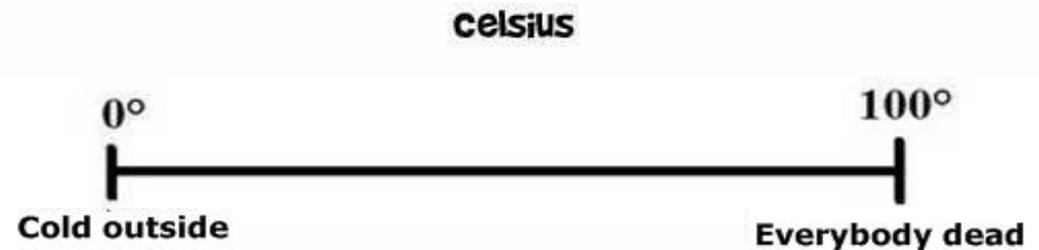
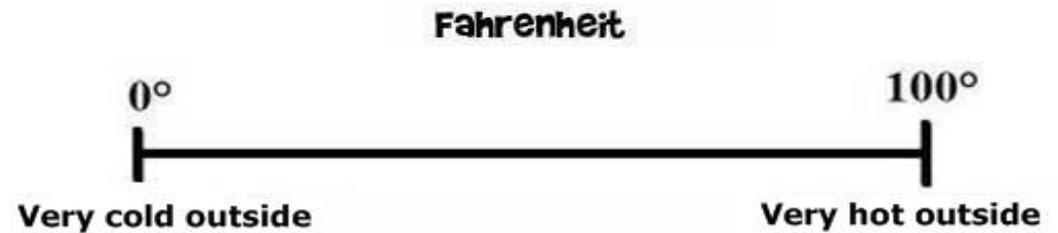
- *“2002 could be considered the beginning of the digital age, the first year worldwide digital storage capacity overtook total analog capacity. As of 2007, almost 94 percent of our memory is in digital form”*
- Read more on <http://news.usc.edu/#!/article/29360/How-Much-Information-Is-There-in-the-World>
- Watch a video about the Martin Hilbert study: <http://vimeo.com/20928251>

# Deal with it...

- Information overload
  - Issues of quantity (to much information to cope with...)
  - Issues of quality (to complex information to cope with...)
  - Issues of synchrony and trueness (can we deal with channel diversity and confirm information trueness...)
- How to deal with information overload?
  - Management (tasks, goals, time, information, relationships, attention, ...)
  - Relate, structure, prioritise
  - Say no!
  - Do not have it, link it!
  - Filter, discard
  - Share, collaborate
  - Focus and forget
  - Learn to network a lot

# Turn knowledge into understandable information

- Translate it to real world relationships...
  - compare and relate
  - use multimedia and visual complexity



See

<http://www.visualcomplexity.com>

# With Internet the issue of publication also changes...

- See this 9:29 min video from Aaron Swartz –  
**The Network Transformation**  
[http://www.youtube.com/watch?v=CzNXDdjtxQI&no\\_redirect=1](http://www.youtube.com/watch?v=CzNXDdjtxQI&no_redirect=1)

*Internet activist  
(1986, 2013)*



Well... lets take a break now...



# Open Access



JISC reports on open access (2010 & 2011): <http://crc.nottingham.ac.uk/projects/rcs/reports.php>

# grassroots

- Pete Suber timeline of the Open Access Movement (start in 1966, with ERIC, till 2008)
  - <http://legacy.earlham.edu/~peters/fos/timeline.htm>
- More info on the open access directory
  - A good reference on [http://oad.simmons.edu/oadwiki/Main\\_Page](http://oad.simmons.edu/oadwiki/Main_Page)
  - See its timeline (for Sec XXI): <http://oad.simmons.edu/oadwiki/Timeline>
- Steven Harnad (Princeton University, 1995), Scholarly Journals at the Crossroads: A subversive Proposal for Electronic Publishing
  - full book at <http://www.arl.org/bm~doc/subversive.pdf>

# More...

- Budapest Open Access Initiative (BOAI, 2002, revised 2010)
  - *its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited*
  - <http://www.opensocietyfoundations.org/openaccess>

# Back on 2006...

- *Open Access (OA) means that electronic scholarly articles are available freely at the point of use. The subject has been discussed for over 10 years, but has reached a crescendo of discussion over the last few years with various declarations in favour of OA from groups of researchers or their representatives.*
- *The UK House of Commons Science and Technology Committee considered the issue in 2004, reporting in the summer in favour of OA. This indicates the importance of the issue, and led to statements from large research funding bodies such as the Wellcome Trust and the Research Councils UK.*

# What about open access (I)

- *The academic publishing houses have very successfully spread all sorts of confusion regarding what OA actually is. The consensus amongst academics who have studied the question of how to move peer-reviewed academic communications out of the Gutenberg era and into the Licklider/Berners-Lee area is that OA consists of:*
  - *immediate (on acceptance for publication) free (as in beer) online access to the full final (amended following review) text of scholarly/scientific journal articles*

# What about open access (II)

- *What OA is not, is anything to do with monographs, underlying data, removing/radically revising the peer review process, or requiring that the publisher's formatting be available. The text (and associated diagrams) are what matters in OA.*
- *As another archivangelist put it in a private email, it is the new knowledge that matters, what new conclusions have been drawn or "give me a shoulder to stand on". Occasionally, minor errors in copy do change the meaning of a text substantially, but in the world of OA these would quickly be challenged (to paraphrase Raymond (2001) "to many eyes, all typos are visible") and OA repositories allow revised versions to be added without over-writing the peer-reviewed original.*
- *The archivangelist is Steven Harnad*
- *Eric Raymond (2001). The Cathedral and the Bazaar. O'Reilly. Available in <http://www.catb.org/~esr/writings/cathedral-bazaar/>*

# The path and the choice



# Open access policies

- NIH Public Access Policy Details (a fine and success example)
  - <http://publicaccess.nih.gov/policy.htm>
- University of Cambridge: Interesting collection of timeline events related with academic open access
  - [http://www.lib.cam.ac.uk/open\\_access/](http://www.lib.cam.ac.uk/open_access/)
- *UK Research Council (RCUK) published a revised Policy on Open Access*
  - <http://www.rcuk.ac.uk/documents/documents/RCUKOpenAccessPolicyandRevisedguidance.pdf>

# Example: embargo periods

## RCUK recent policy (April, 2013)



# Open access policies

- EU has a policy for it (FP7, 2008)
  - <http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=1294&lang=1>
  - A recent slideshare presentation about EU Open Access  
<http://www.slideshare.net/OpenAccessEC/2013-02-07oa-dechamprev>
- **OpenAIRE initiative**
  - <http://www.openaire.eu>
- EUA has also a policy to it
  - <http://www.whitehouse.gov/blog/2013/02/22/expanding-public-access-results-federally-funded-research>
- But some issues arised as those placed by Michael Elisen
  - <http://blogs.berkeley.edu/2013/02/26/no-celebrations-here-why-the-white-house-public-access-policy-sucks/>

# The idea of open access oposed to protected knowledge

- *The concept of Open Access is simple but revolutionary: Anyone with Internet access can immediately read any article published. With the majority of research done at the University of Florida being paid for by tax dollars, why should the tax payers have to pay again in subscription fees for access to their results?*

<http://www.thefineprintuf.org/2011/02/08/open-access/>

# Knowledge is power and need to be protected & the sustainability issue



- The pros and cons of open access (Nature)  
<http://www.nature.com/nature/focus/accessdebate/34.html>

# Legal licenses and copyrights

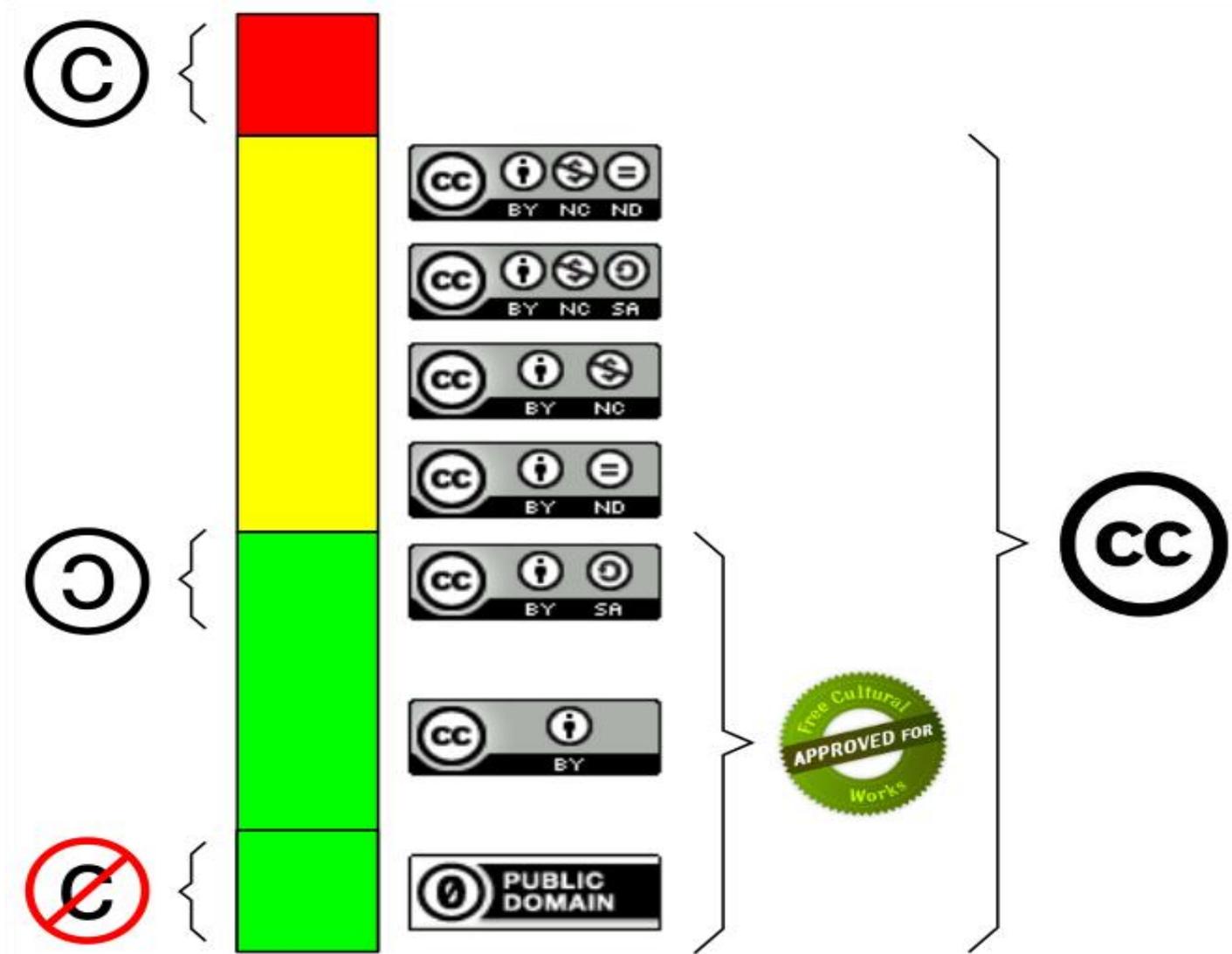
- General license scheme provided worldwide by Creative Commons (introduced in 2001 by Lawrence Lessig)
  - <http://creativecommons.org/>
- *Learn more about what is CC*
  - <http://creativecommons.org/about>
- *Choose the right license to your needs*
  - <http://creativecommons.org/choose/>
- *Search schemas for CC content (include Europeana)*
  - <http://search.creativecommons.org/>



# Types of CC licenses & sequence rules

		Can someone use it commercially?	Can someone create new versions of it?
<i>CC BY</i>	Attribution 		
<i>CC BY-SA</i>	Share Alike  		Yup, AND they must license the new work under a Share Alike license.
<i>CC BY-ND</i>	No Derivatives  		
<i>CC BY-NC</i>	Non-Commercial  		Yup, AND the new work must be non-commercial, but it can be under any non-commercial license.
<i>CC BY-NC-SA</i>	Non-Commercial Share Alike   		Yup, AND they must license the new work under a Non-Commercial Share Alike license.
<i>CC BY-NC-ND</i>	Non-Commercial No Derivatives   		

# Creative Commons Semaforo



# life free and wonderful



**BUT**

# However, a number of critics make (some) sense...

- Read some of the arguments
  - the issue of peer reviewing:  
<http://poynder.blogspot.pt/2006/10/open-access-death-knell-for-peer.html>
  - AO publishers discussion:  
<http://poynder.blogspot.pt/2011/10/interview-with-nicola-rylett-intechs.html>
  - Overall general concerns:  
<http://research.criticpen.com/article/open-access-dream-m4zh>
  - Predatory publishers:  
<http://scholarlyoa.com/2012/12/06/bealls-list-of-predatory-publishers-2013/>
  - Copyright and research, a very important paper on...  
<http://www.law.ed.ac.uk/ahrc/script-ed/vol4-3/adams.asp>

# The idea of reach more by less



# The idea of a public option for scholarship



[http://www.berkeley.edu/news/berkeleyan/2009/10/02\\_open-access.shtml](http://www.berkeley.edu/news/berkeleyan/2009/10/02_open-access.shtml)

# The idea of public investment on R&D must lead to public results/reports

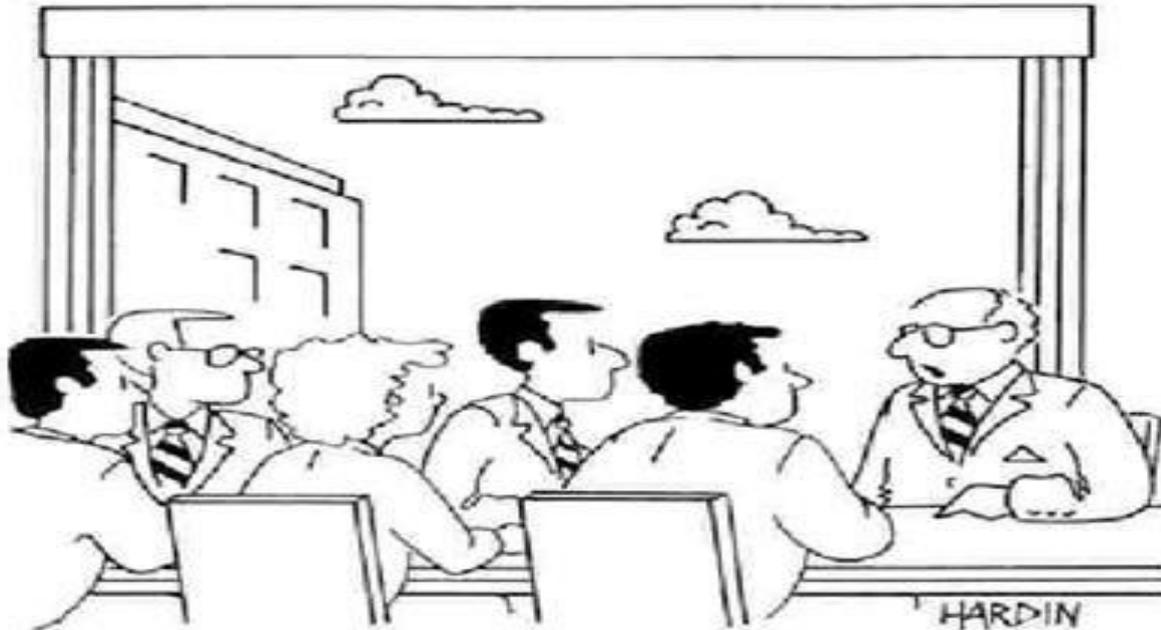
- See this Creative Commons post *Open Access and the Role of Universities in Society*  
<http://www.creativecommons.org.nz/2012/10/open-access-and-the-role-of-universities-in-society/>
  - *Take into account the discussion with many interesting addings*



# The idea of soundness in scientific works (valid but not to advance the field)

- See Phil Davis post on Can Open Access Journals Guarantee Sound Methods?

<http://scholarlykitchen.sspnet.org/2010/10/19/oa-sound-methodology/>

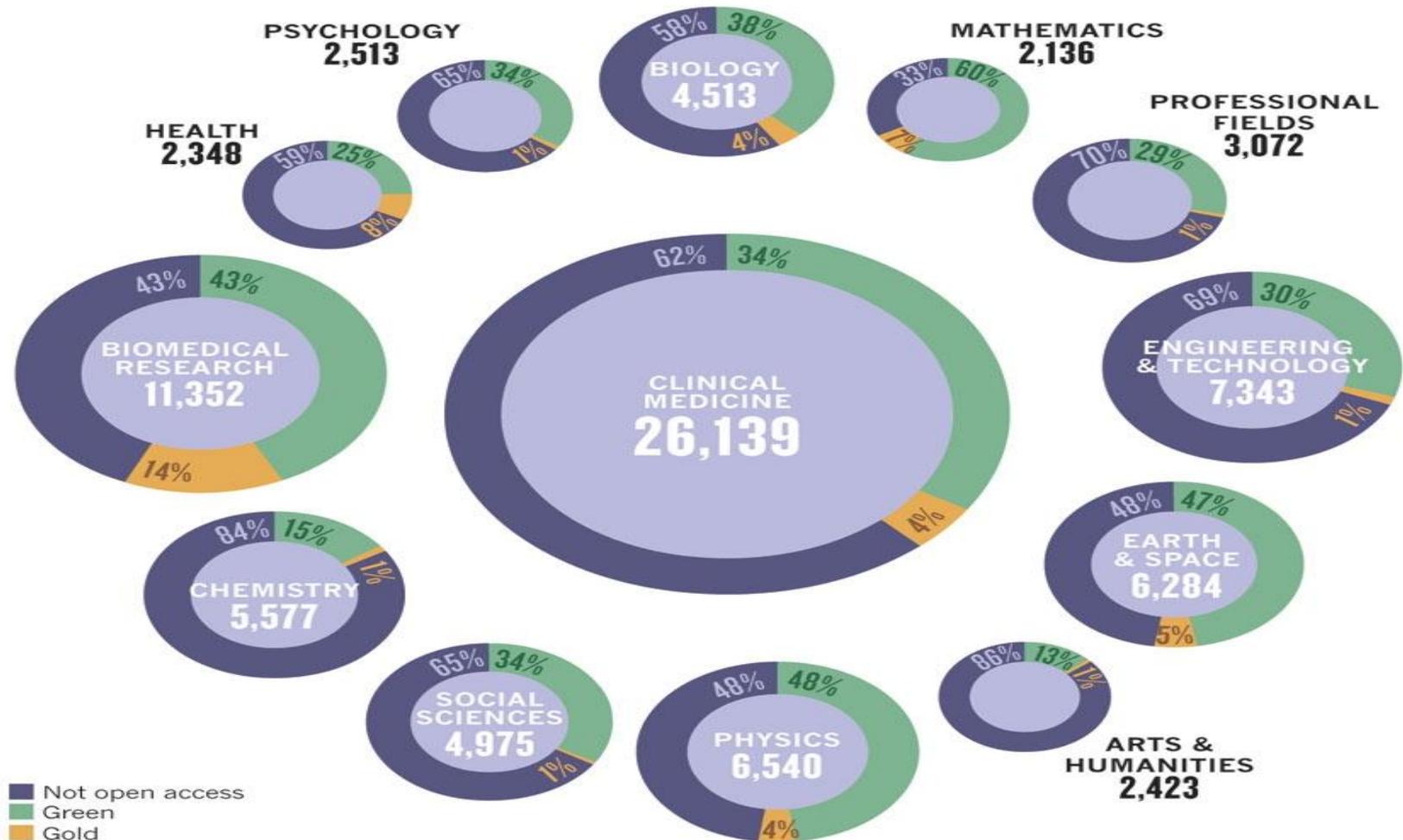


"We've considered every potential risk except the risks of avoiding all risks."

# Not equal for every subject

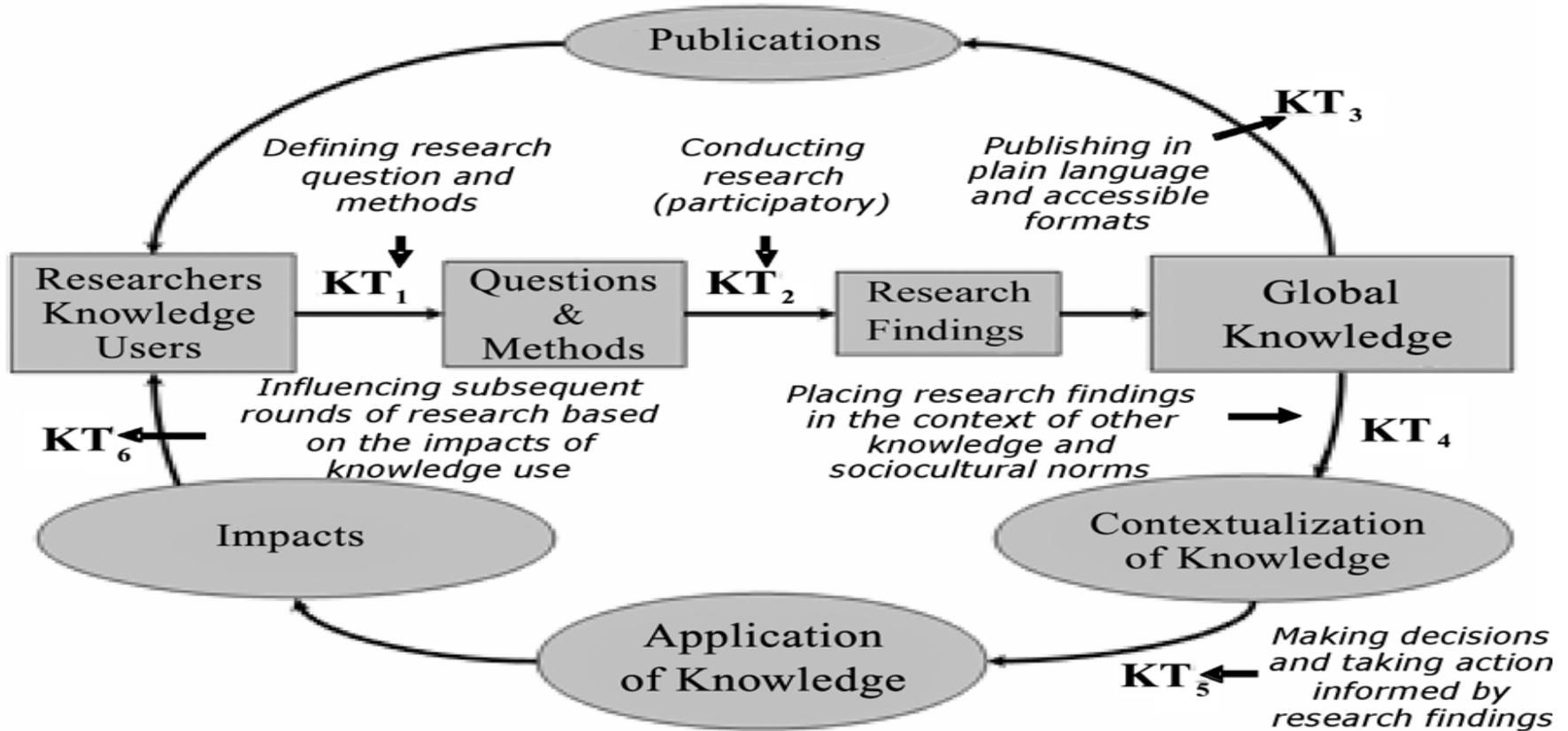
## OPEN ACCESS IN THE UK

Of the 85,215 research papers published by UK academics in 2010 (as indexed by Web of Science), around 5% were gold open access, whereby authors pay for open publication. Another 35% were green open access — published behind a pay wall and then put in a free repository. However, the proportion varied between disciplines.



# CIHR six opportunities within the research cycle

[http://www.ktdrr.org/ktlibrary/articles\\_pubs/ktmodels/index.html#figure1](http://www.ktdrr.org/ktlibrary/articles_pubs/ktmodels/index.html#figure1)



**KT1:** Defining research questions and methodologies

**KT2:** Conducting research (as in the case of participatory research)

**KT3:** Publishing research findings in plain language and accessible formats

**KT4:** Placing research findings in the context of other knowledge and sociocultural norms

**KT5:** Making decisions and taking action informed by research findings

**KT6:** Influencing subsequent rounds of research based on the impacts of knowledge use

# OA main general motivations

- **Ethics:** There is an ethical argument that research funded by the public should be available to the public. Since research is an international activity, this crosses national boundaries
- **Research Impact:** The Internet provides an opportunity. Modern harvesting techniques and search engines make it possible to discover publications of relevance if they are deposited in an OA repository with a particular metadata standard. If all authors did this then the world of research would be available , fast and online, for everybody. There is evidence that articles available in an OA repository have more accesses (readers), citations and therefore impact
- **Costs:** There is concern over research activities caused by the cost of journal subscriptions, whether electronic or paper. These costs run well above the rate of inflation been to high for libraries with restricted budgets who withdraw to provide many journals needed by researchers.
- **Just reward:** There is also concern that in traditional scholarly publishing, most of the work (authoring, reviewing, editing) is done freely by the community and that the publishers make excessive profits from the actual publishing (making available) process. In conventional publishing, the institution subscribes to the publication channel to obtain electronic access or paper copies

# Types of open access

<b>Green Route</b>	The author can self-archive at the time of submission of the publication whether the publication is grey literature, a peer-reviewed journal publication, a peer-reviewed conference proceedings paper or a monograph
<b>Golden Route</b>	The author or author institution can pay a fee to the publisher at publication time, the publisher thereafter making the material available 'free' at the point of access.
<b>Preprints</b>	Preprints are articles that are pre-peer-review
<b>Postprints</b>	Postprints are articles that are post-peer-review
<b>eprints</b>	eprints can be either preprints or postprints but in electronic form
<b>White Literature</b>	White literature is peer-reviewed, published articles
<b>Grey Literature</b>	Grey literature is preprints or internal 'know-how' material

Read more on [http://www.ercim.eu/publication/Ercim\\_News/enw64/jeffery.html](http://www.ercim.eu/publication/Ercim_News/enw64/jeffery.html)

# Always many (valid) perspectives

- A multitude of actors are involved, each with their own agenda
  - Publishers
  - Librarians
  - Users
  - Authors
  - Institutions
  - Sponsors
  - Industry
  - Government
  - Society
  - Knowledge

# Example:

## authors perspective about copyright models

- Model A and Model C – both variations on sharing the copyright with the Creative Commons licences
  - preferred by 30% of the respondents.
- Model B – in which the exploitation rights are transferred to the publisher
  - preferred by 13%.
- Model D – the author keeps the copyright
  - preferred by nearly half of the respondents (46%).
- Nearly 8% of the respondents had no preference or did not know.

Model	The author has following rights:	The publisher has following rights:	Others have the following rights:
<b>A</b>	all usage allowed including reuse for commercial purposes	not applicable	all usage allowed including reuse for commercial purposes
<b>B</b>	all usage allowed except for commercial purposes	OA publisher receives commercial exploitation rights	all usage allowed except for commercial purposes
<b>C</b>	all usage allowed	not applicable	all usage allowed if republishing then also Open Access
<b>D</b>	author keeps commercial exploitation rights	not applicable	all usage allowed except for commercial purposes

From D-Lib 2006 Hoorn and van der Graaf paper:

<http://www.dlib.org/dlib/february06/vandergraaf/02vandergraaf.html>

# A video on Open Access

- Watch this PhD comics 8 min video

[https://upload.wikimedia.org/wikipedia/commons/7/71/PhD Comics Open Access Week 2012.ogv](https://upload.wikimedia.org/wikipedia/commons/7/71/PhD_Comics_Open_Access_Week_2012.ogv)

- *Credits:*

– *By Jorge Cham, based on interviews with Jonathan Eisen and Nick Shockey (Open Access Explained! (WebCite)) [CC-BY-3.0 (http://creativecommons.org/licenses/by/3.0)], via Wikimedia Commons*

# Much more to be said...

- All a world of techno stuff need to be considered
  - Digital libraries
  - Interoperability
  - Repositories
  - Open access software
  - OA and open source initiatives
- Also a number of issues need to be dealt with
  - OA statistics
  - Directories and publishers
  - Open access services
  - Self archiving issues
  - Legal issues
  - OA economics and funding
  - OA and open data initiatives

# Other urls...

- Sauber book on Open Access
- Cost forces Harvard to move its approach to publishers
  - <http://www.guardian.co.uk/science/2012/apr/24/harvard-university-journal-publishers-prices>
- ...but also forces Springer to move
  - <http://www.springer.com/about+springer/media/pressreleases?SGWID=0-11002-2-1387743-0>
- Directories
  - Doab: directory of open access books <http://www.doabooks.org/>
  - Doaj: directory of open access journals <http://www.doaj.org/>
- About the digital and books:
  - <http://www.sourcebooks.com/blog/10-ways-to-explore-the-digital-revolution-in-books.html>
- Intech open science | open minds
  - <http://www.intechopen.com/books>
- Ebrary, free open access collections
  - <http://www.ebrary.com/corp/oa.jsp>

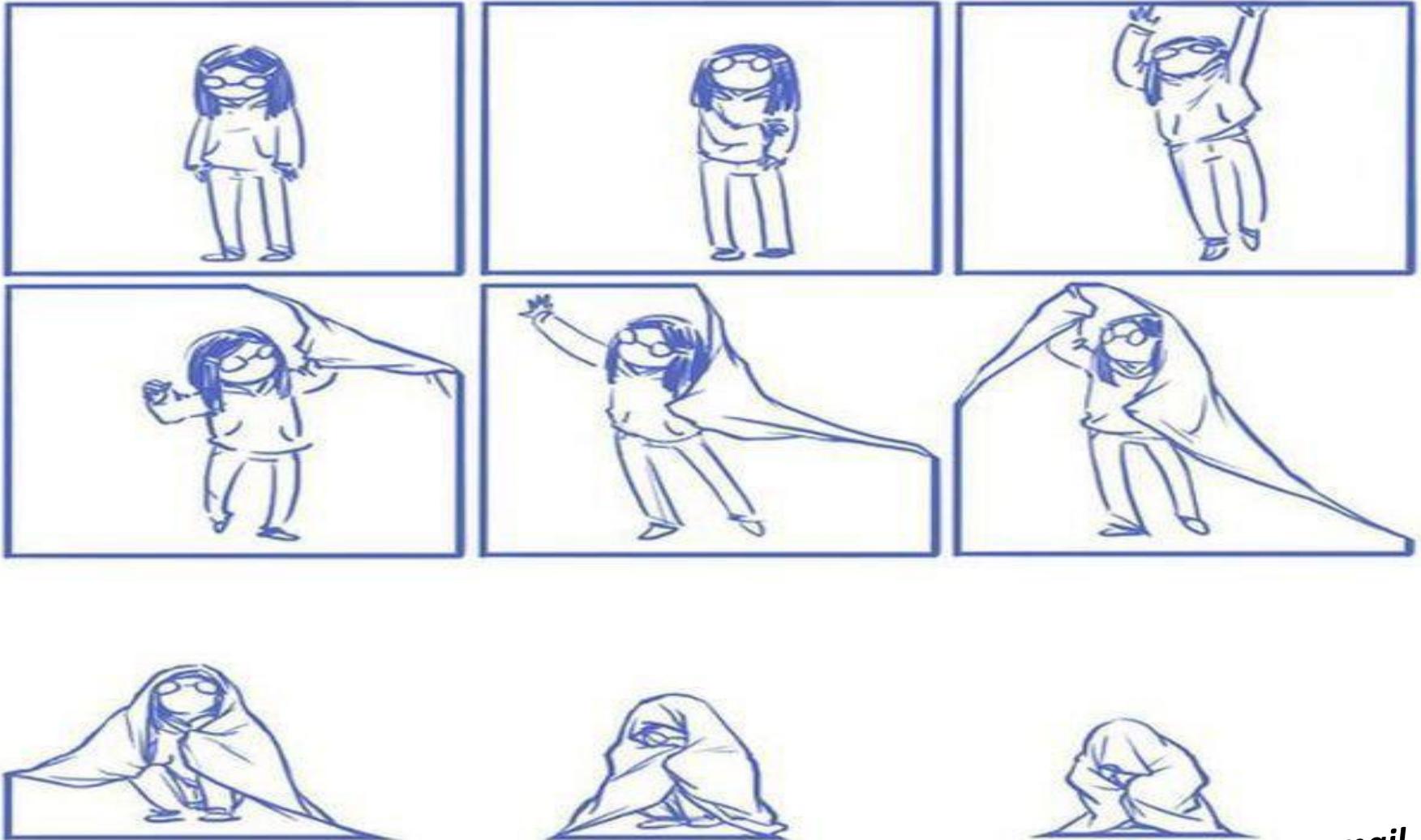
# Some related TED & TEDx talks

- Michael Nielsen: Open Science
  - <http://www.wired.com/wiredscience/2011/04/a-ted-talk-to-open-your-eyes-to-open-science/>
- Larry Lessig claiming that laws are killing creativity
  - [http://www.ted.com/talks/larry\\_lessig\\_says\\_the\\_law\\_is\\_strangling\\_creativity.html](http://www.ted.com/talks/larry_lessig_says_the_law_is_strangling_creativity.html)
- Don Tapscott: four principles for the open world
  - [http://www.ted.com/talks/don\\_tapscott\\_four\\_principles\\_for\\_the\\_open\\_world\\_1.html](http://www.ted.com/talks/don_tapscott_four_principles_for_the_open_world_1.html)
- Jim Wales: on the birth of Wikipedia
  - [http://www.ted.com/talks/jimmy\\_wales\\_on\\_the\\_birth\\_of\\_wikipedia.html](http://www.ted.com/talks/jimmy_wales_on_the_birth_of_wikipedia.html)
- William Noel: Revealing the lost codex of Archimedes
  - [http://www.ted.com/talks/william\\_noel\\_revealing\\_the\\_lost\\_codex\\_of\\_archimedes.html](http://www.ted.com/talks/william_noel_revealing_the_lost_codex_of_archimedes.html)

# Further reading

- James Gleick. (2011). *The Information. A History, a Theory, a Flood*. Fourth Estate. <http://around.com/the-information/>
- John Willinsky. (2006). *The Access Principle: The Case for Open Access to Research and Scholarship*. The MIT Press.
- Peter Suber. (2012). *Open Access*. The MIT Press.  
[http://cyber.law.harvard.edu/hoap/Open Access %28the book%29](http://cyber.law.harvard.edu/hoap/Open%20Access%20the%20book%29)
- Sarah Giersch, Kirsten Butcher & Tom Reeves. (2003). *Annotated Bibliography of Evaluating the Educational Impact of Digital Libraries*. NSDL.  
<http://arizona.openrepository.com/arizona/bitstream/10150/105668/1/giersch0903.pdf>
- *A small contribution (& offer...)*  
Gouveia, L. and Gaio, S. (eds) (2004). *Readings in Information Society*. University Fernando Pessoa Press.

# Hope the workshop provide some value



*Feel free to email*

...and enjoy Porto!

