

Open Access :
Challenging the norm in
Academia
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Challenging the norm

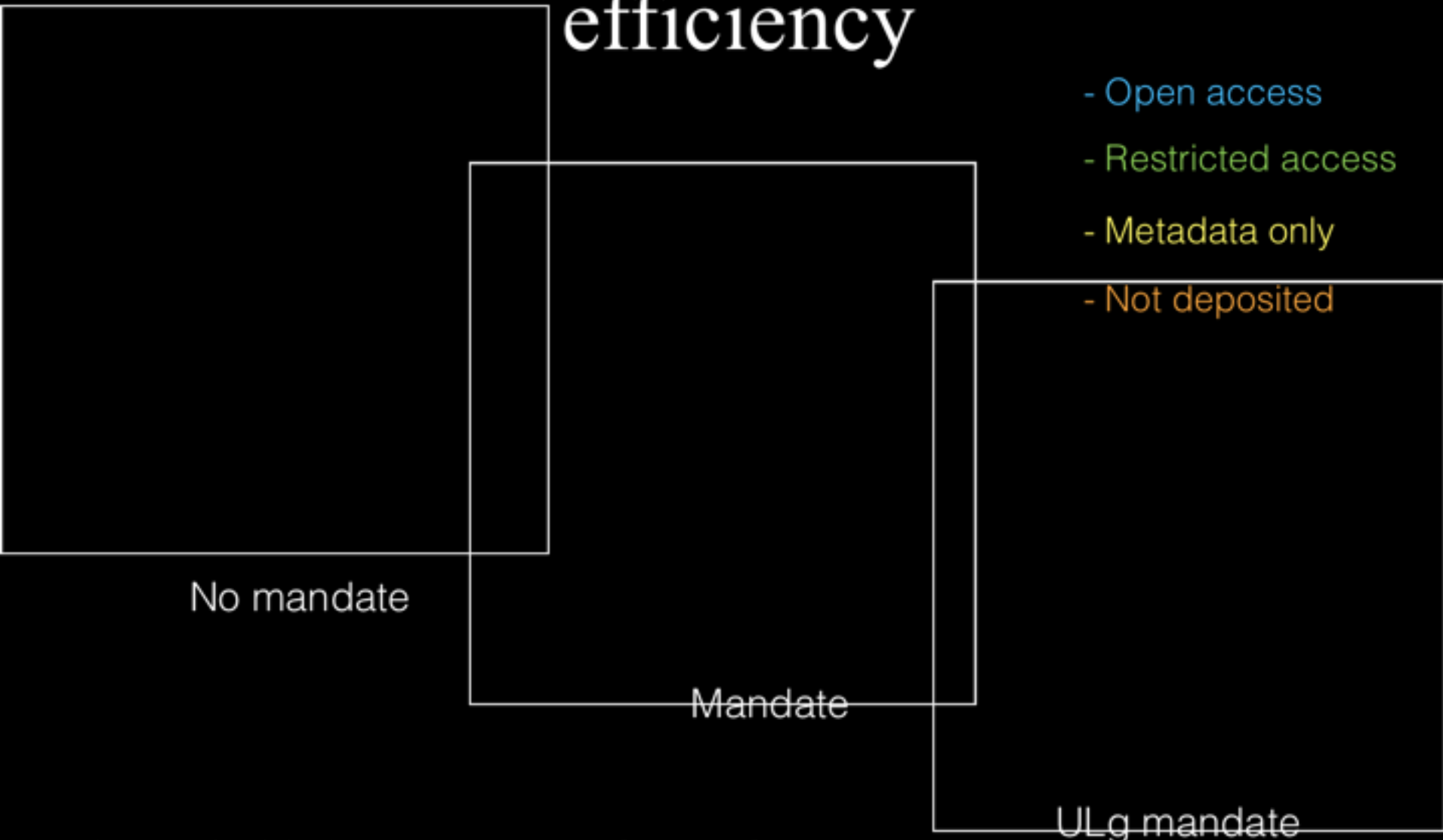
The norm

- Keep research data personal
- Publish in journals with highest Impact Factor as possible
- Base Evaluation on publication numbers

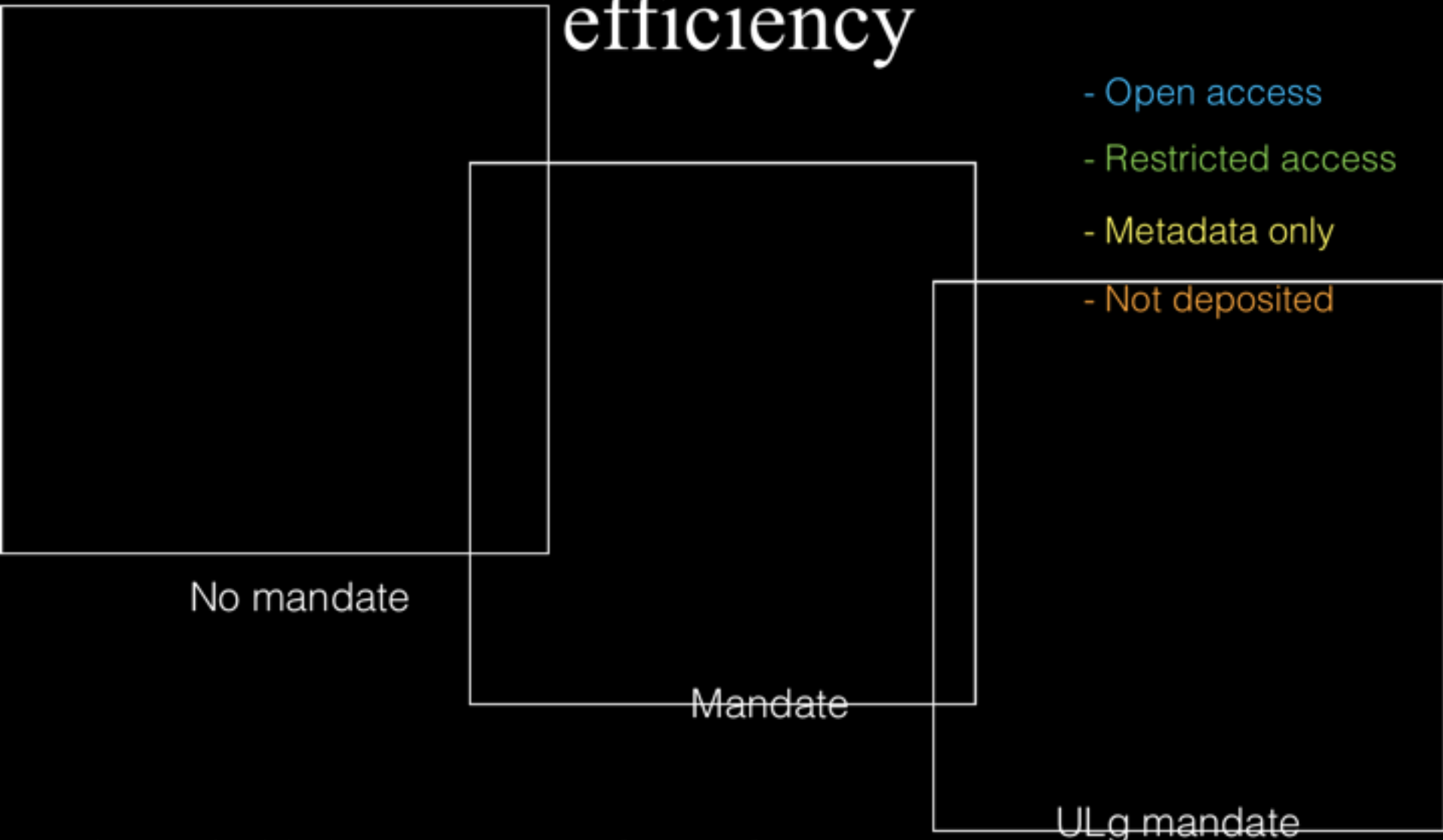
The challenge

- Share research data
- Make publications accessible without constraints
- Base evaluation on compliance with sharing principles

Mandate strength vs Deposit efficiency



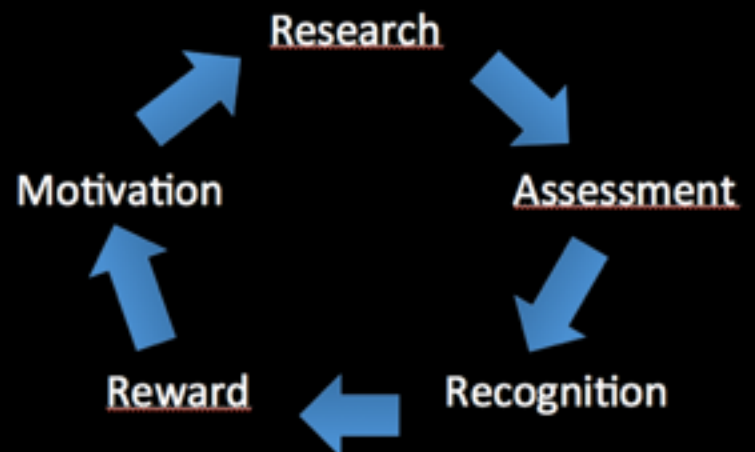
Mandate strength vs Deposit efficiency



Incentivising researchers to make their publications open

- **Transform the evaluation procedures**
 - Introduce openness and sharing in evaluation criteria rather than « prestige » indicators
 - Select quality over quantity
 - Ask for 3-5 best choice of papers
 - Investigate on real role in the team
 - Reward cooperative behaviour
 - Reward activities helping collectivity
- **Promote open source software use for research procedures**
- **Promote open research data sharing**

- In all areas of human activity, motivation is linked to recognition and some form of reward.
- Reward is based on judgement.
- Judgement rests on assessment.
- Hence assessment is a major element leading to reward and ultimately to motivation



Publications = the researchers' production

- Research papers are the primary tangible and lasting output of science, it is how researchers :
 - communicate discoveries,
 - are evaluated for hiring, promotion, and awards.
- The current system has :
 - changed little over centuries,
 - largely failed to take advantage of new technologies enabled by the Internet.
- It no longer serves the needs of scientists.

Are publications obsolete ?

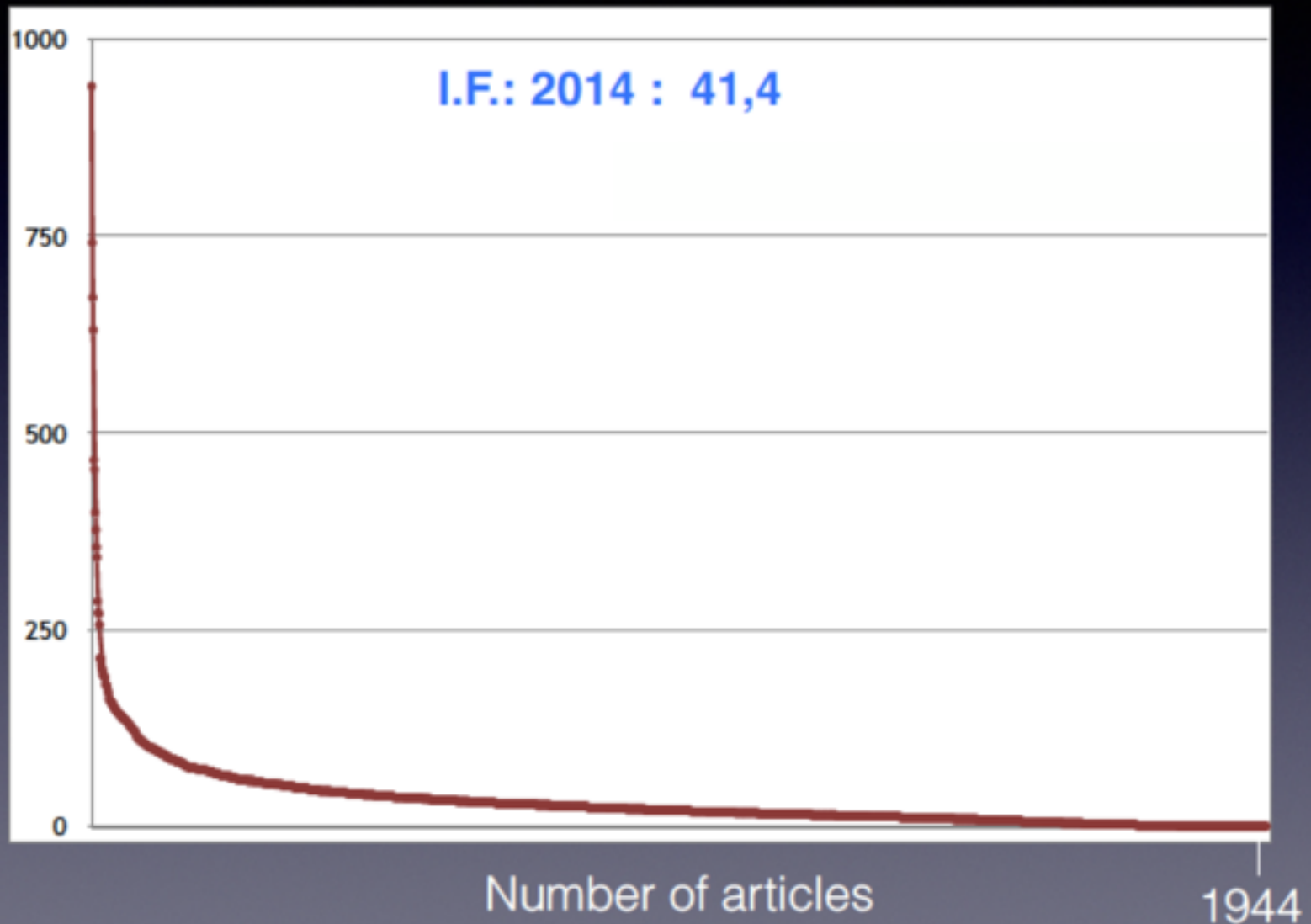
- The traditional system is:
 - slow
 - expensive
 - arbitrary
 - inaccessible



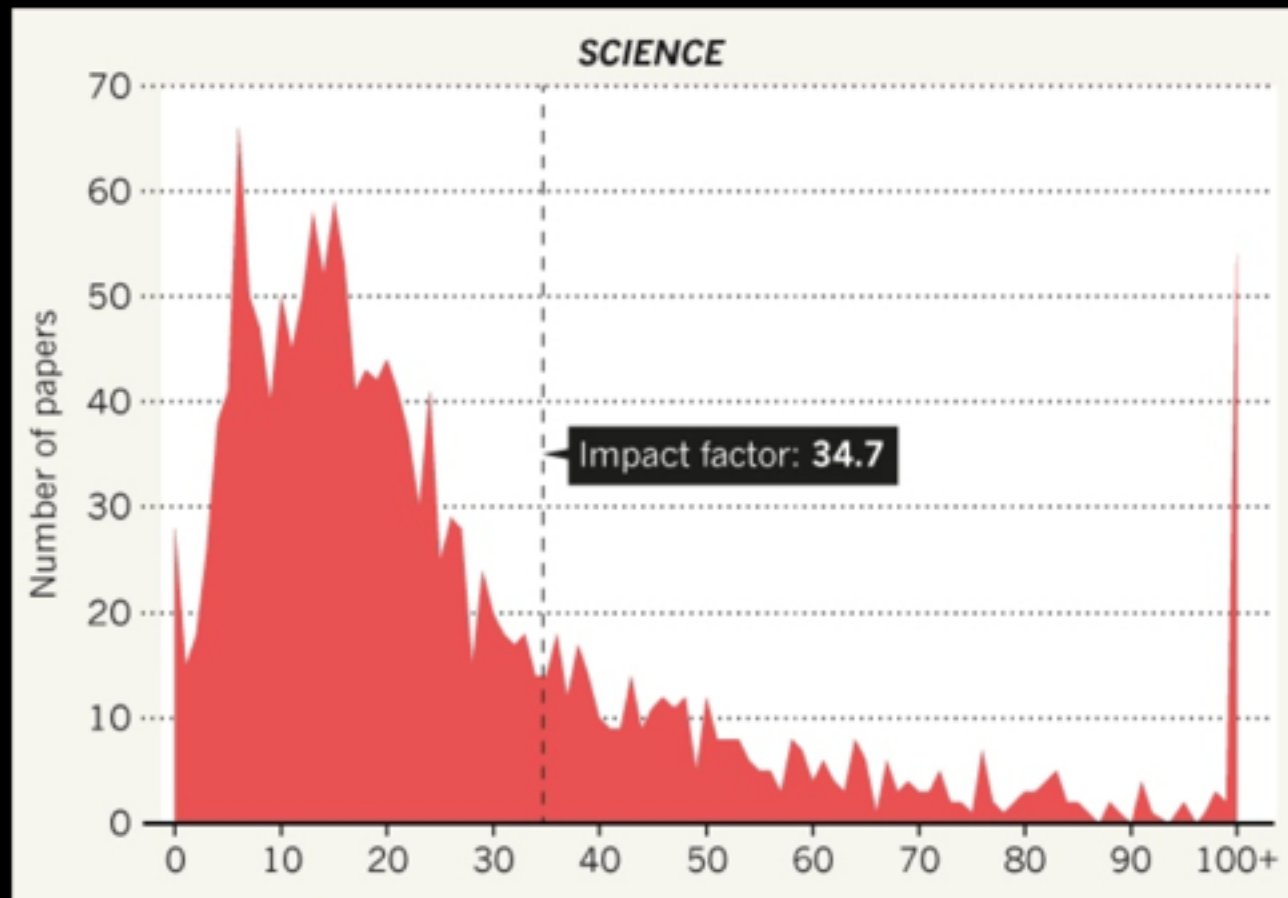
The impact factor deception

Number of citations in 2014 per article published in *Nature* in 2012-13

Number
of
citations
in 2014



Can research be evaluated ?



Publications : what should be done ?

1. Researchers themselves should decide when a work is ready to be published
2. Authors should publish manuscripts outside of the current publisher-controlled procedure by uploading work to **pre-print** servers prior to conventional peer review and generate comments from the scientific community. Pre-print publishing is already the norm in physics, mathematics, and economics (ArXiv)
3. Funders and other stakeholders should endorse the adoption of pre-prints



Research

Assessment

Thank you !

Recognition

Reward

Motivation



Perverse effects of the current system

Any evaluation procedure based on quantitative rather than qualitative measurements creates a trend to

1. **overproduce :**
 - Too many articles
 - Tendency to slice up
 - Tendency to duplicate
 - Fraud (plagiarism, falsification)
2. **decrease the readership per paper**

Retraction rate is increasing dramatically
Stress, burn out, carrier break up



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A few principles to develop in evaluation procedures

Use other criteria than publication numbers or journal ratings such as openness & sharing

Open Access;

Open Data;

Material exchange;

Time devoted to training of new researchers;

Participation in communitary duties (logistics, administration);

Any othe mission of general interest to the community.



Caution

- Evolution of evaluation procedures must be global
 - Or it may put your own scholars at risk
- What to do until then ?
 - Prepare sharing behaviours
 - Favour Green open access

Research

Assessment

Thank you !

Recognition

Reward

Motivation

