These slides were made by
Tim Brody and Stevan Harnad
(Southampton University)

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as long as their source is acknowledged.

The Research-Impact Cycle

Open access to research output

maximizes

research **access**

maximizing (and accelerating)

research **impact**

(hence also research **productivity**
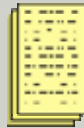
and research **progress**

and their **rewards**)
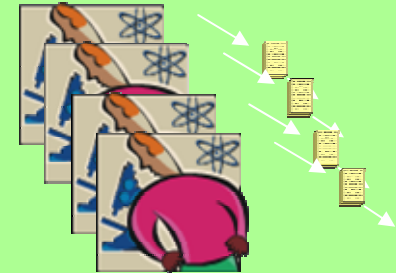
Limited Access: Limited Research Impact
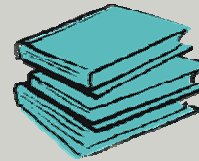
12-18 Months

Impact cycle begins:
Research is done

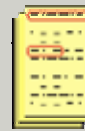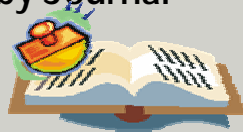Researchers write pre-refereeing "Pre-Print"

Submitted to Journal

Pre-Print reviewed by Peer Experts – "Peer-Review"

Pre-Print revised by article's Authors

Refereed "Post-Print" Accepted, Certified, Published by Journal

Researchers can access the Post-Print if their university has a subscription to the Journal

New impact cycles:
New research builds on existing research

Maximized Research Access and Impact Through Self-Archiving

12-18 Months

Impact cycle begins: Research is done

Researchers write pre-refereeing "Pre-Print"

Submitted to Journal

Pre-Print is self-archived in University's Eprint Archive

Pre-Print reviewed by Peer Experts – "Peer-Review"

Pre-Print revised by article's Authors

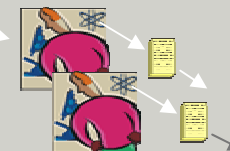**Post-Print is self-archived in University's Eprint Archive**

Refereed "Post-Print" Accepted, Certified, Published by Journal

Researchers can access the Post-Print if their university has a subscription to the Journal
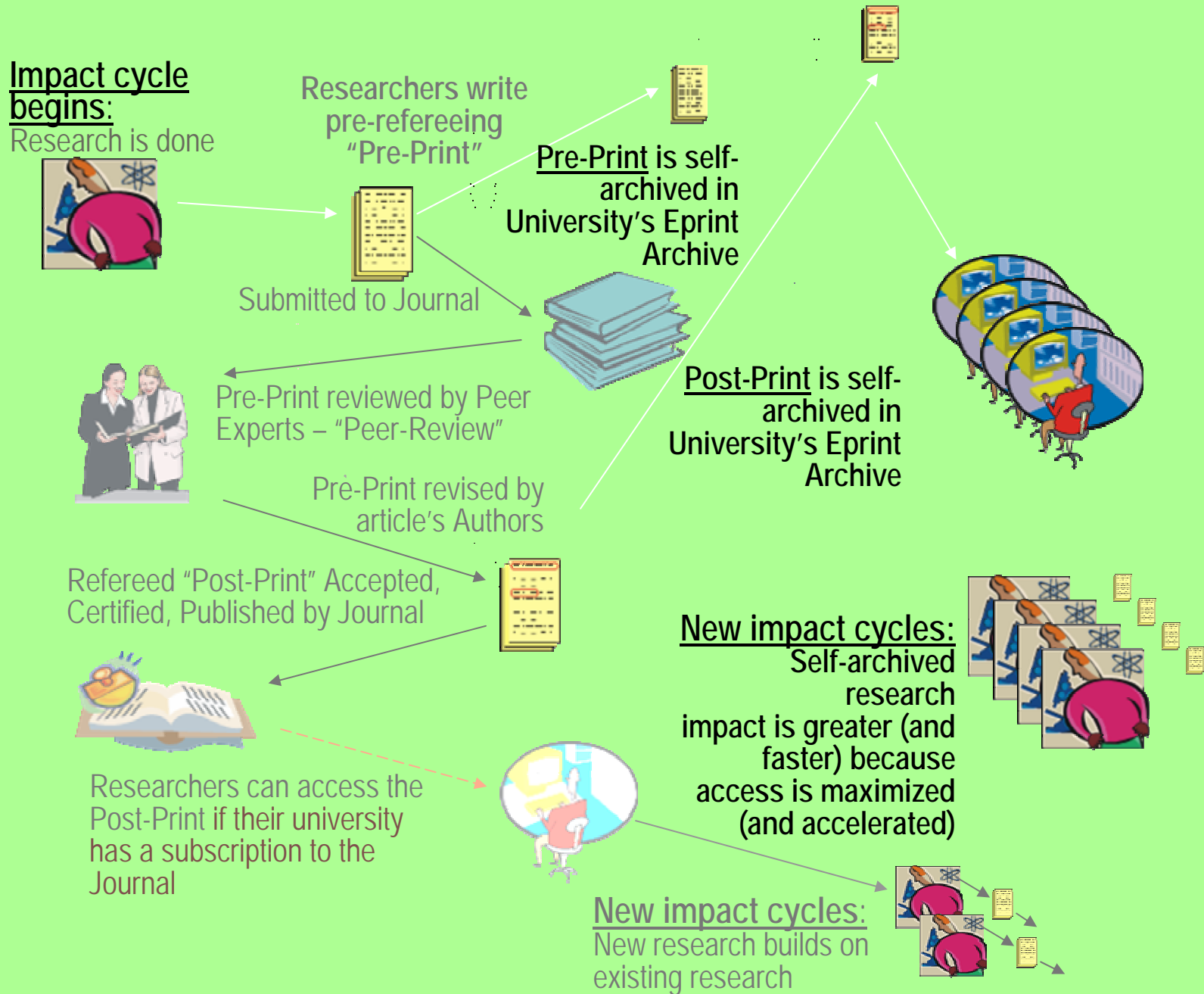
New impact cycles: Self-archived research impact is greater (and faster) because access is maximized (and accelerated)

**New impact cycles:** New research builds on existing research

Research Impact

I. measures the __size__ of a research contribution to further research ("publish or perish")

II. generates further research __funding__

III. contributes to the research __productivity__ and financial support of the researcher's institution

IV. advances the researcher's __career__

V. promotes research __progress__
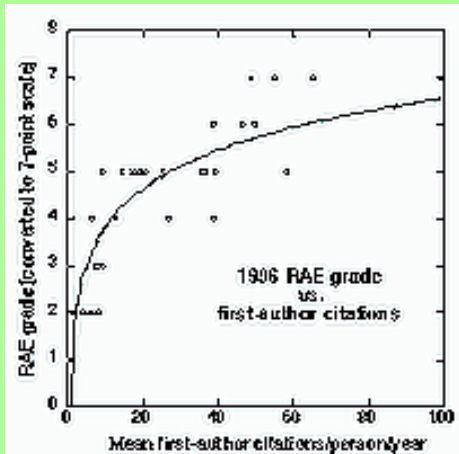
"*Online or Invisible*?" (Lawrence 2001)
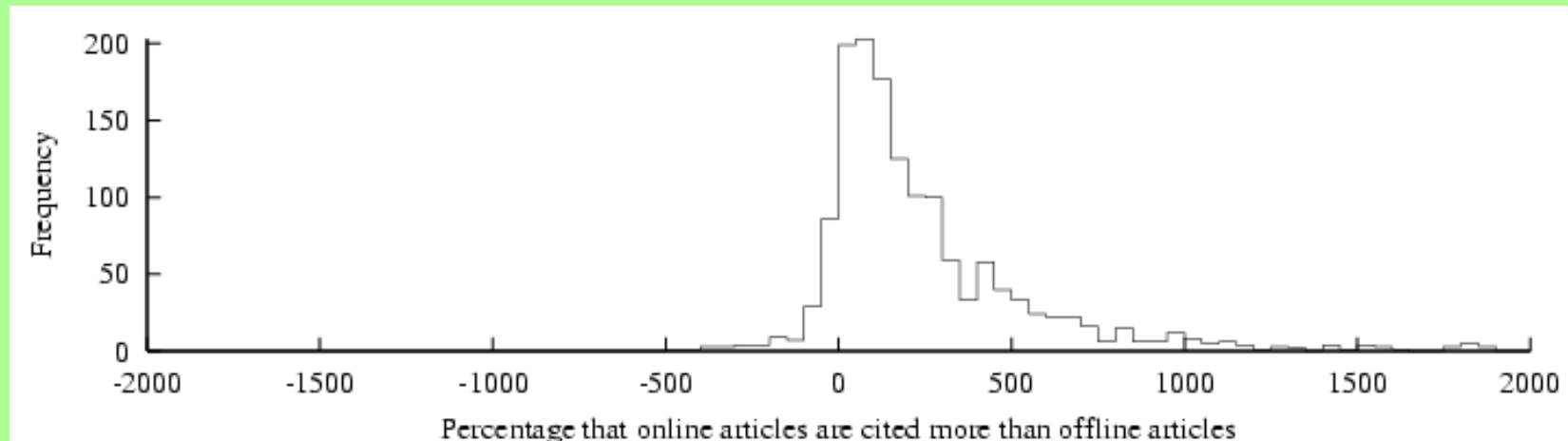
"**average of 336% more citations to online articles compared to offline articles published in the same venue**"

Lawrence, S. (2001) Free online availability substantially increases a paper's impact Nature 411 (6837): 521.

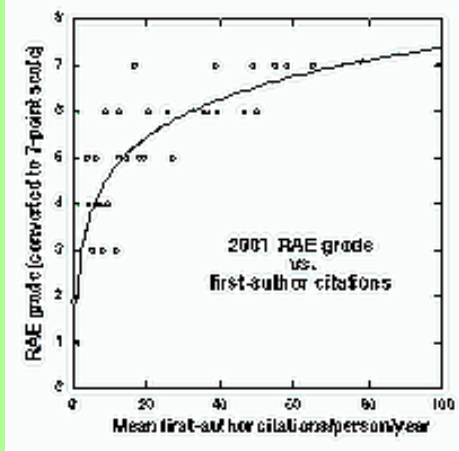http://www.neci.nec.com/~lawrence/papers/online-nature01/

Research Assessment, Research Funding, and Citation Impact

"**Correlation between RAE ratings and mean departmental citations +0.91 (1996) +0.86 (2001) (Psychology)**"

"**RAE and citation counting measure broadly the same thing**"

"**Citation counting is both more cost-effective and more transparent**"

(Eysenck & Smith 2002)

http://psyserver.pc.rhbnc.ac.uk/citations.pdf

The objective of open-access

*(and the motivation that will induce researchers to provide it)*
is:

- **not** to quarrel with, ruin or replace journals (**at all**)

- **nor** is it to solve the budgetary problems of libraries *(and yet…)*

- **nor** is it to provide access to teachers - students - the general public *(and yet…)*

- **nor** is it to provide access to the Developing World *(and yet…)*

The objective of open-access is:

to maximize research
  <u>impact</u>
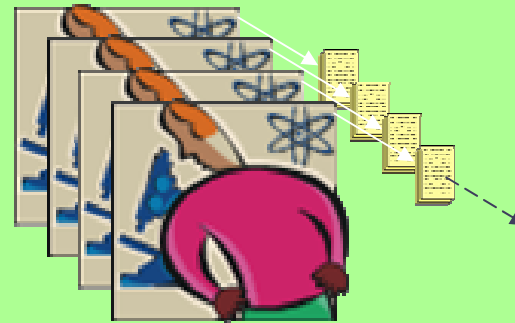
by maximizing research
  <u>access</u>

Some old and new scientometric ("publish or perish") indices of research impact

- **<u>Peer-review</u> quality-level and citation-counts of the <u>journal</u> in which the article appears**

- **citation-counts for the <u>article</u>**

- **citation-counts for the <u>researcher</u>**

- **<u>co-citations</u>, <u>co-text</u>, "semantic web" (cited with whom/what else?)**

- **citation-counts for the <u>preprint</u>**

- **<u>usage-measures</u> ("hits," webmetrics)**

- **<u>time-course analyses</u>, early predictors, etc. etc.**

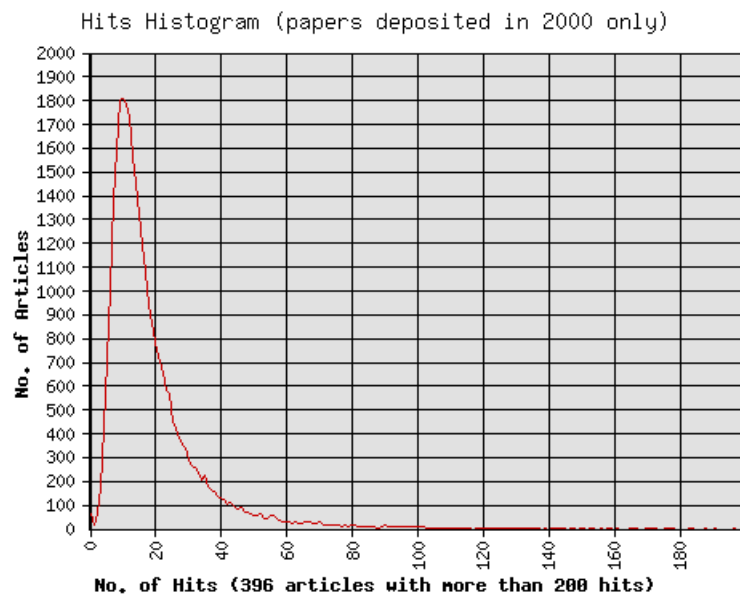# Time-Course of Citations (red) and Usage (hits, green)

Witten, Edward (1998) String Theory and Noncommutative Geometry *Adv. Theor. Math. Phys.* 2 : 253
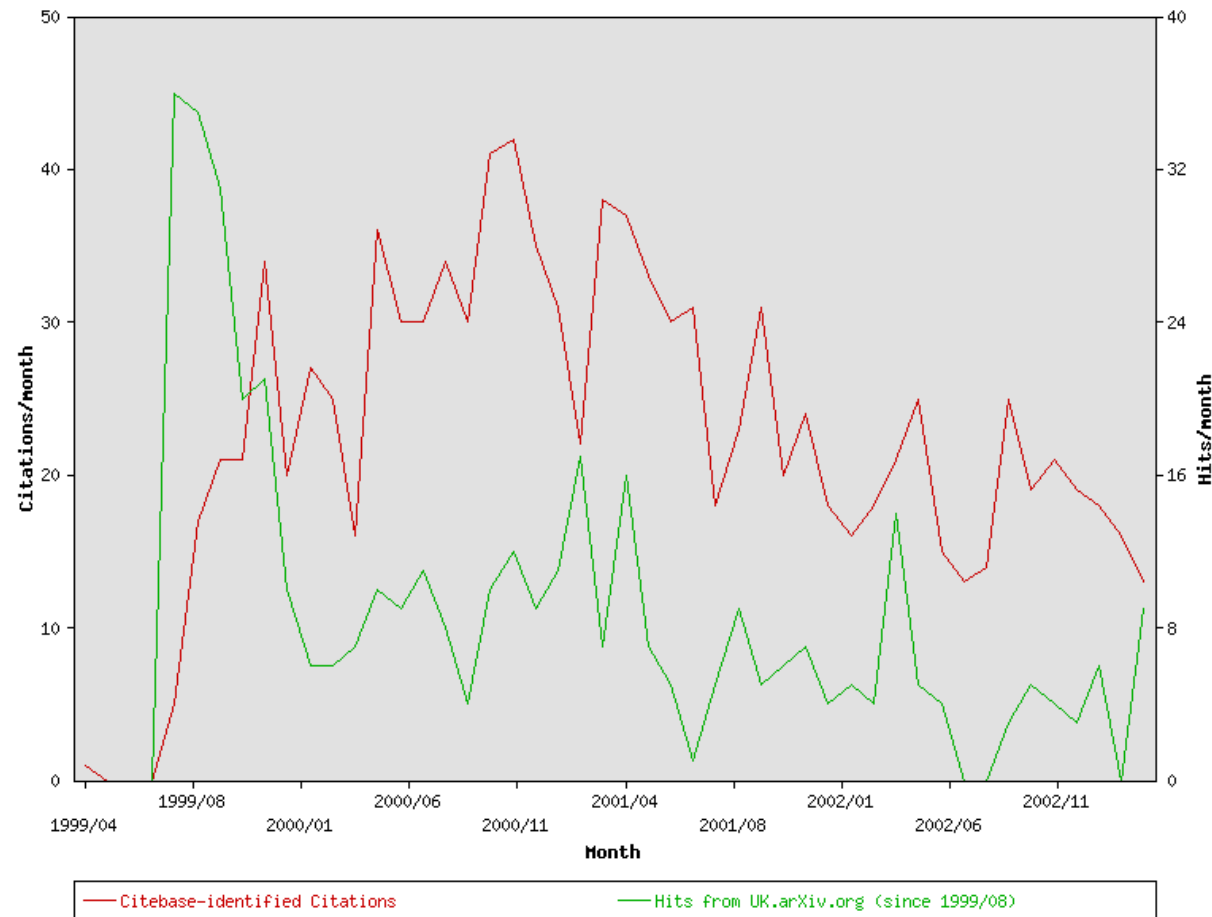
1. Preprint or Postprint appears.
2. It is downloaded (and sometimes read).
3. Eventually citations may follow (for more important papers)…
4. This generates more downloads…
5. More citations...

Citation Histogram (papers deposited in 2000 only)

No. of Articles (Base 10 logarithm) vs No. of Citations (425 articles with more than 200 citations)
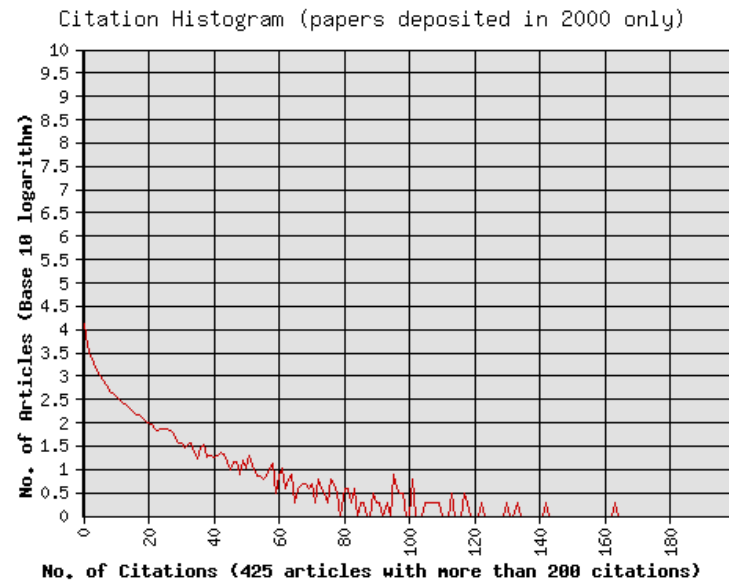
Most papers are not cited at all

Hits Histogram (papers deposited in 2000 only)

No. of Articles vs No. of Hits (396 articles with more than 200 hits)

Average UK downloads per paper: 10
(UK site only: 18 mirror sites in all)

Usage Impact

is correlated with Citation Impact

(Physics ArXiv: **hep**, astro, cond, quantum; math, comp)
http://citebase.eprints.org/analysis/correlation.php

(Quartiles Q1 (lo) - Q4 (hi))

__All   r=.27__, n=219328

Q1 (lo)   r=.26, n=54832

Q2   r=.18, n=54832

Q3   r=.28, n=54832

Q4 (hi)   r=.34, n=54832

__hep   r=.33__, n=74020

Q1 (lo)   r=.23, n=18505
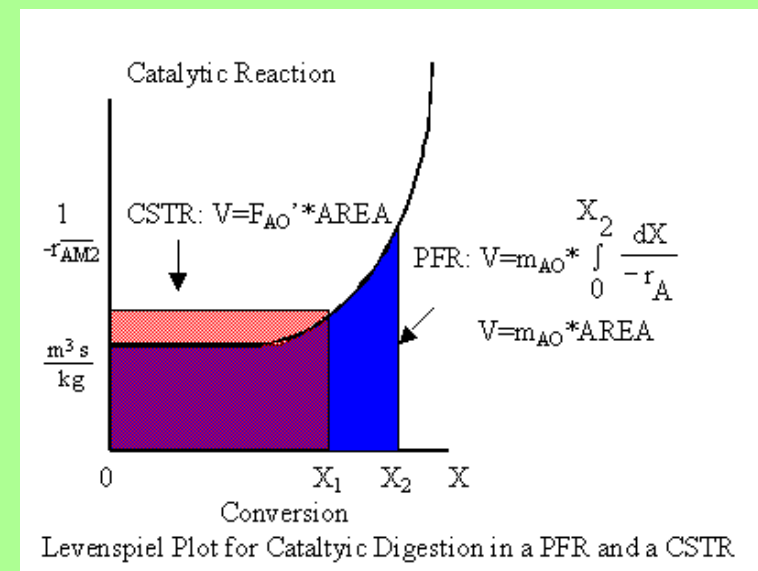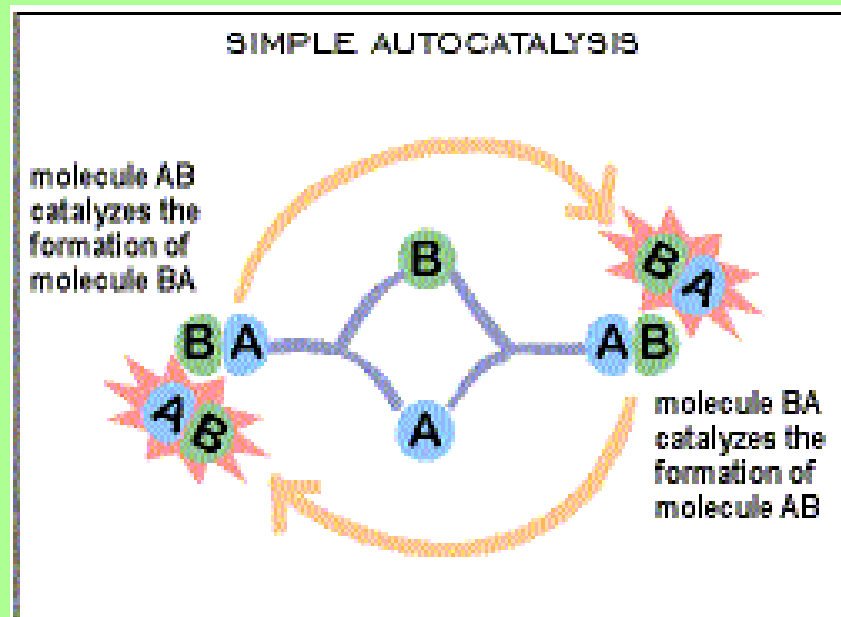
Q2   r=.23, n=18505

Q3   r=.30, n=18505

Q4 (hi)   r=.50, n=18505

(correlation is highest for high-
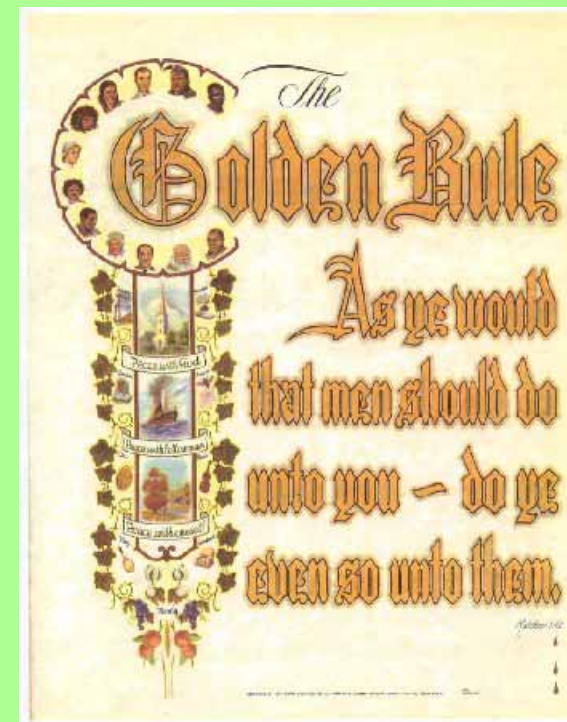   citation papers/authors)

The Golden Rule for Open Access: Reciprocity

(i) <u>Researchers</u> share a <u>common stake</u> with their own <u>Institutions</u>
(*not their Disciplines*) in maximizing their joint research impact
(ii) Institutions share a <u>reciprocal stake</u> in access to one another's
(give-away) research output

SIMPLE AUTOCATALYSIS

molecule AB catalyzes the formation of molecule BA

molecule BA catalyzes the formation of molecule AB

Catalytic Reaction

$\frac{1}{-r_{AM2}}$

CSTR: $V = F_{AO}'*AREA$

PFR: $V = m_{AO} * \int_{0}^{X_2} \frac{dX}{-r_A}$

$V = m_{AO}*AREA$

$\frac{m^3 s}{kg}$

Conversion

Levenspiel Plot for Cataltyic Digestion in a PFR and a CSTR

"*Self-archive unto others as ye would have them self-archive unto you.*"

http://www.ecs.soton.ac.uk/~harnad/Temp/unto-others.doc

http://www.ecs.soton.ac.uk/~harnad/Temp/self-archiving.ppt
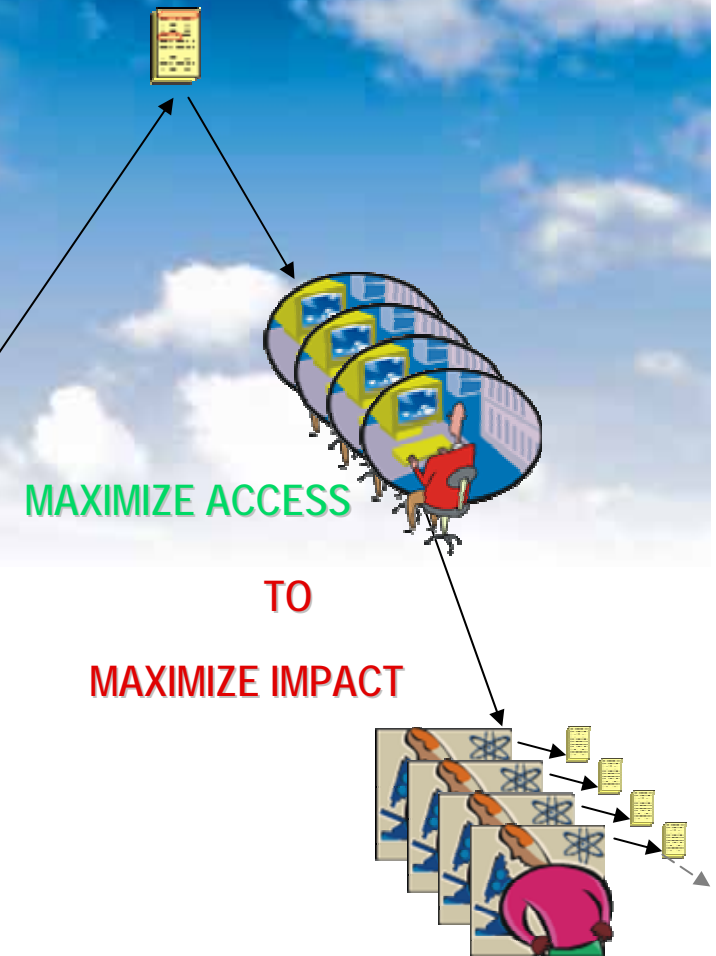
MAXIMIZE ACCESS

TO

MAXIMIZE IMPACT

1.   *Universities*:

**Adopt a policy mandating open access for
all university research output:
Extend existing
"Publish or Perish"
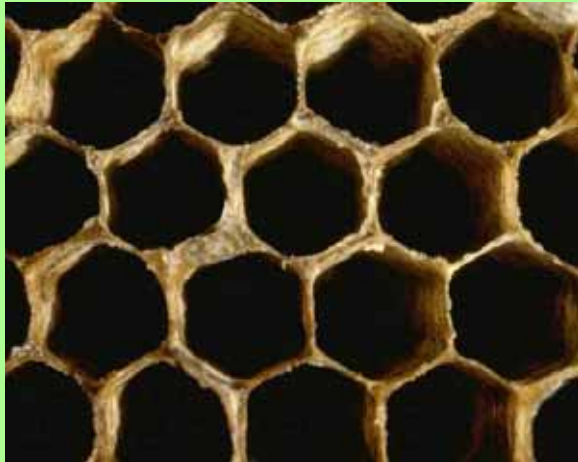policies to**
"Publish with Maximal Impact"

http://www.eprints.org/signup/sign.php

2. <u>Departments</u>:

Adopt a departmental policy mandating
<u>Open Access for All Research Output</u>
Create (and Fill):
OAI-compliant Eprint Archives

**<u>http://software.eprints.org/handbook/departments.php</u>**

3. <u>University Libraries</u>:

**Provide digital library support for university
research self-archiving and archive-maintenance**

*(**and if/when university toll-cancellation savings begin to grow,
prepare to redirect 1/3 of annual windfall savings to cover
open-access journal peer-review service-costs
for university research output**)*

http://www.eprints.org/self-faq/#libraries-do
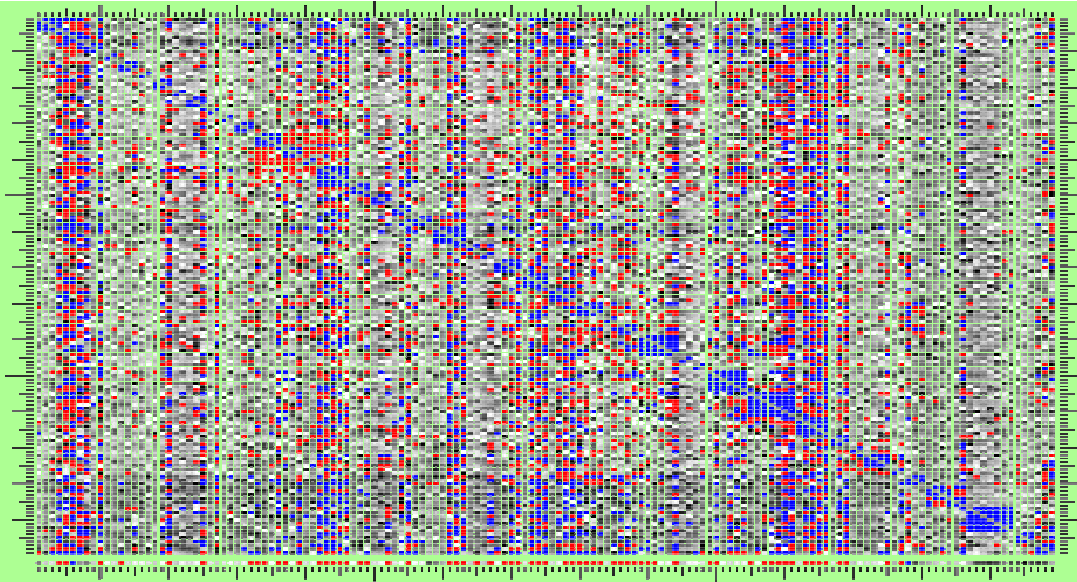
4. <u>Universities and Research Institutions</u>:

Mandate *open access* for all research output.
http://www.eprints.org/signup/sign.php

Adopt a standardized online-CV
with harvestable performance indicators
and links to open-access full-texts

(template and demo below)

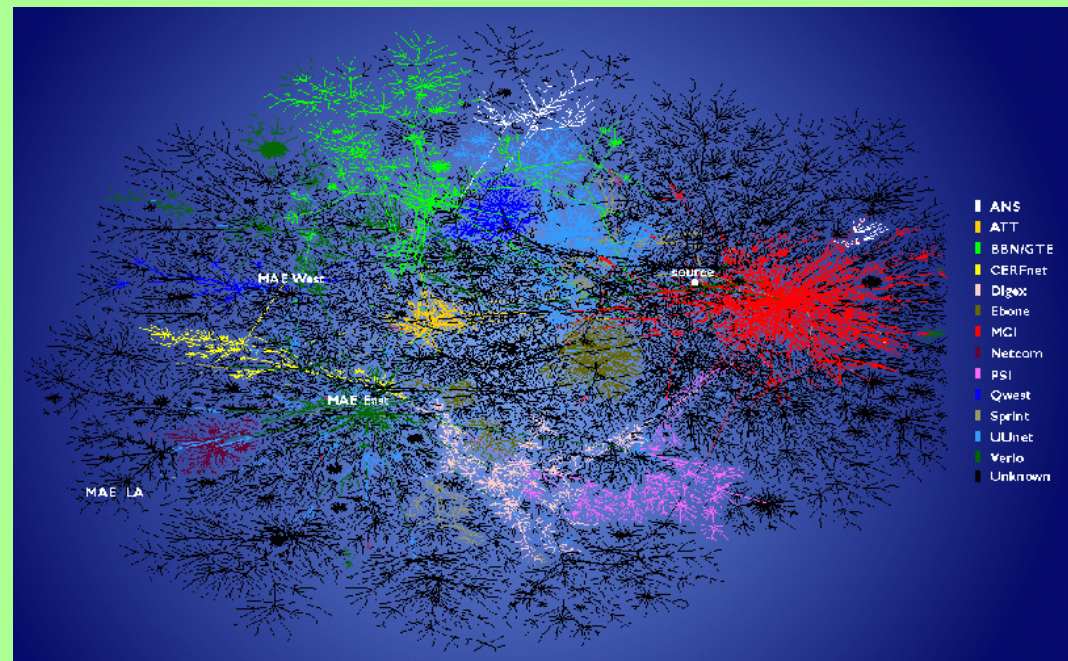**http://paracite.eprints.org/cgi-bin/rae_front.cgi**

5. Research Funders:

Mandate *open access* for all research output.

See proposal for a UK national policy of open access for all refereed research output for research assessment…

http://www.ecs.soton.ac.uk/~harnad/Temp/Ariadne-RAE.doc

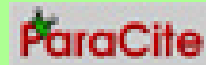**…as a model for the rest of the world**

Tools for
(a) creating OAI-compliant university eprint archives
(b) parsing and finding cited references on the web,
(c) reference-linking eprint archives,
(d) doing scientometric analyses of research impact,
(e) creating OAI-compliant open-access journals
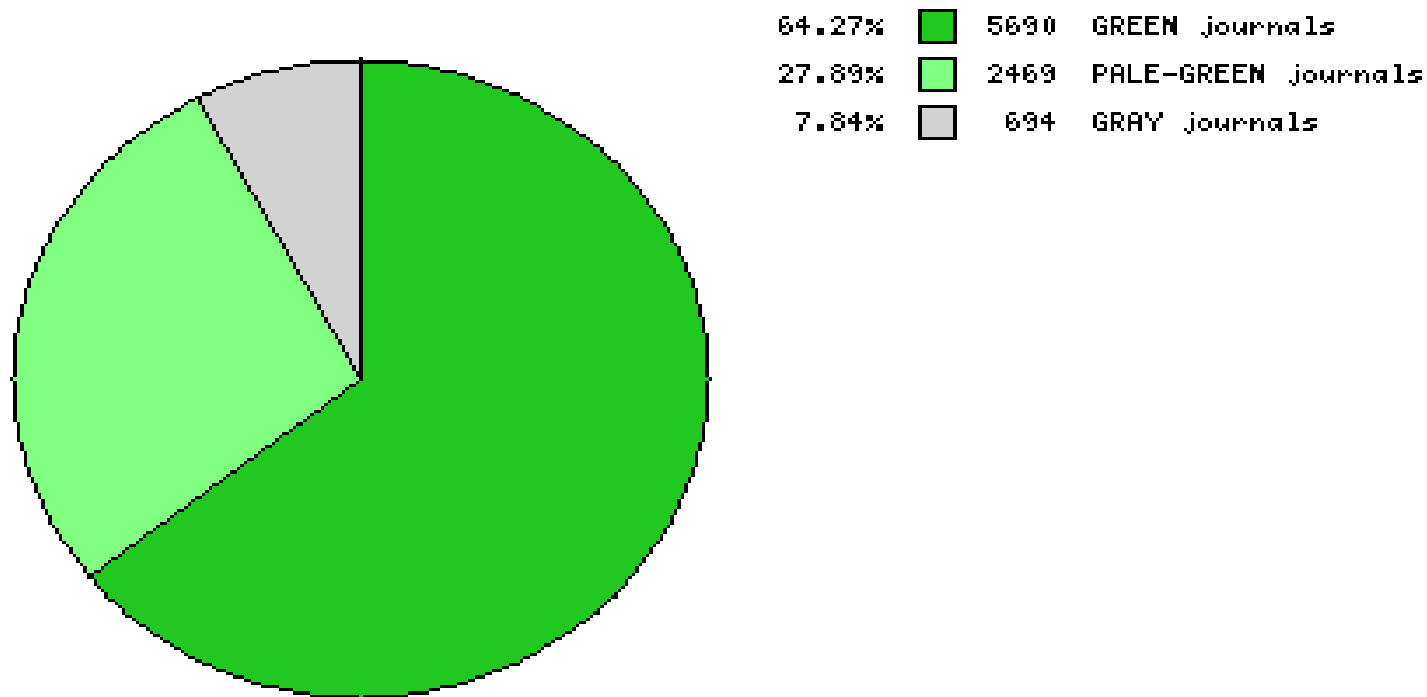

http://software.eprints.org

http://paracite.eprints.org/

http://opcit.eprints.org/evaluation/Citebase-evaluation/evaluation-report.html

http://citebase.eprints.org/help/

http://psycprints.ecs.soton.ac.uk/

Journal Policy Chart

64.27%	🟩	5690	GREEN journals
27.89%	🟩	2469	PALE-GREEN journals
7.84%	⬜	694	GRAY journals

Publisher Policy Chart

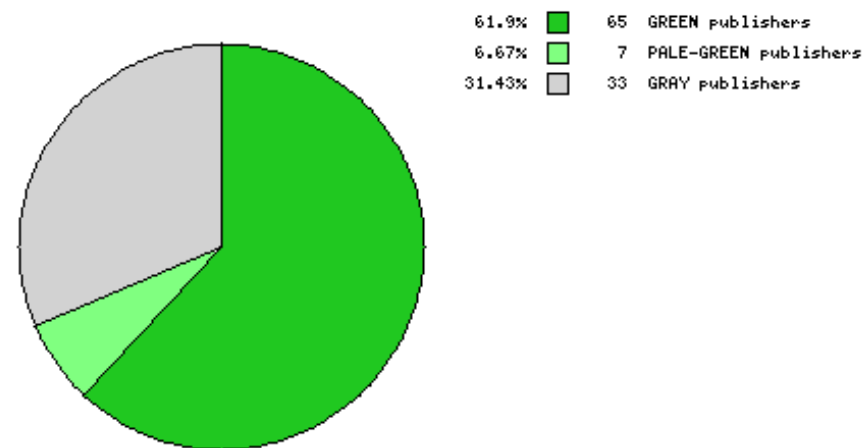|			
61.9%	🟩	65	GREEN publishers
6.67%	🟩	7	PALE-GREEN publishers
31.43%	⬜	33	GRAY publishers

Current Journal Tally: 92% Green!

FULL-GREEN = Postprint 65%
PALE-GREEN = Preprint 28%
GRAY = neither yet 8%

Publishers to date: 107
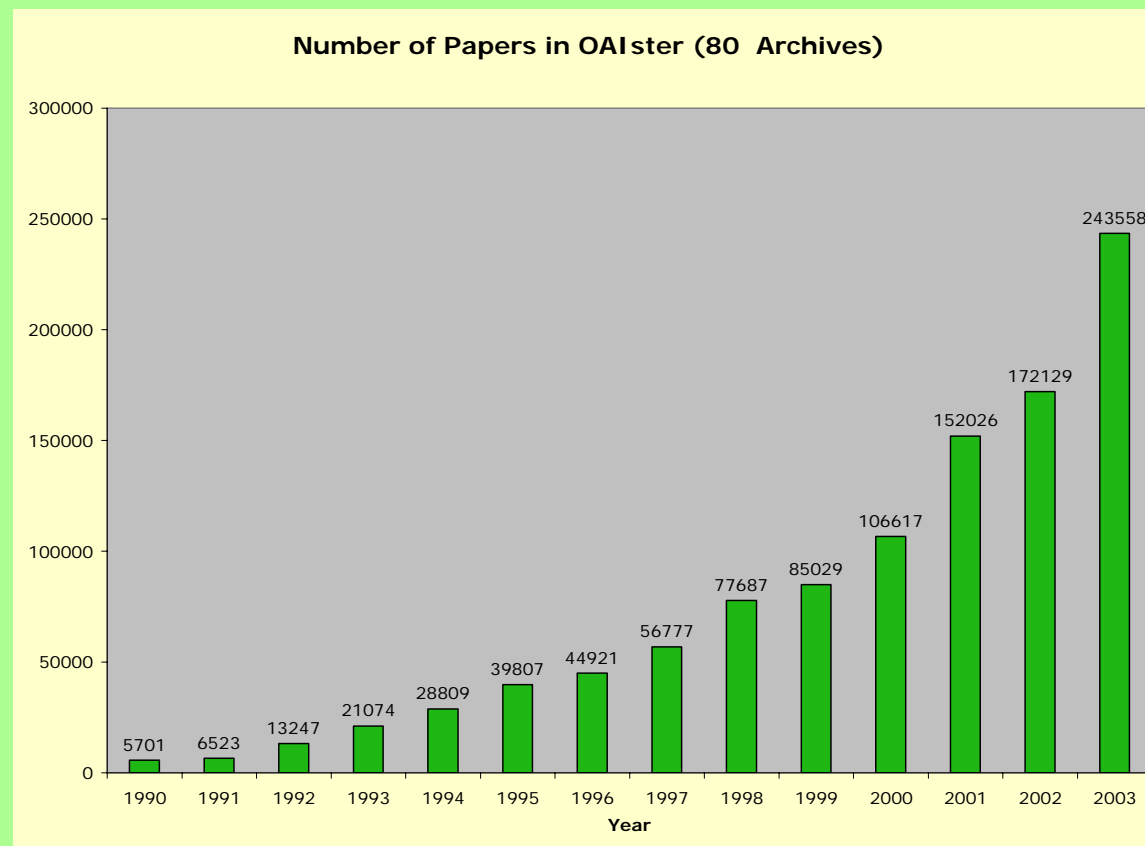Journals processed so far: 8919
http://romeo.eprints.org/stats.php

What is needed for open access now:

1. _Universities_: Adopt a university-wide policy of making all university research output open access (via either the gold or green strategy)

2. _Departments_: Create and fill departmental OAI-compliant open-access archives

3. _University Libraries_: Provide digital library support for research self-archiving and open-access archive-maintenance. Redirect 1/3 of any eventual toll-savings to cover open-access journal peer-review service charges

4. _Promotion Committees_: Require a standardized online CV from all candidates, with refereed publications all linked to their full-texts in the open-access journal archives and/or departmental open-access archives

5. _Research Funders_: _Mandate open access for all funded research_ (via either the gold or green strategy). Fund (fixed, fair) open-access journal peer-review service charges. Assess research and researcher impact online (from the online CVs).

6. Publishers: Become either gold or green.

OAIster, a cross-archive search engine, now covers over 250 OAI Archives (about half of them Eprints.org Archives) indexing over 3 million items (but not all research papers, and not all full-texts). Below are data for just the full-text research papers with 1990-2003 creation dates.

http://oaister.umdl.umich.edu/o/oaister/

Number of Papers in OAIster (80 Archives)

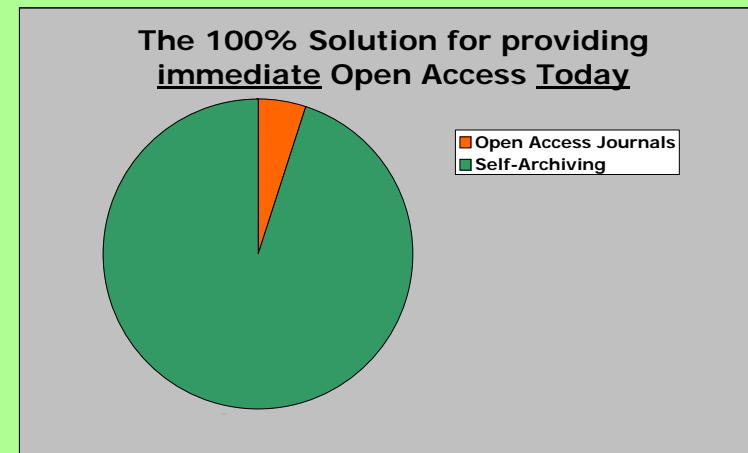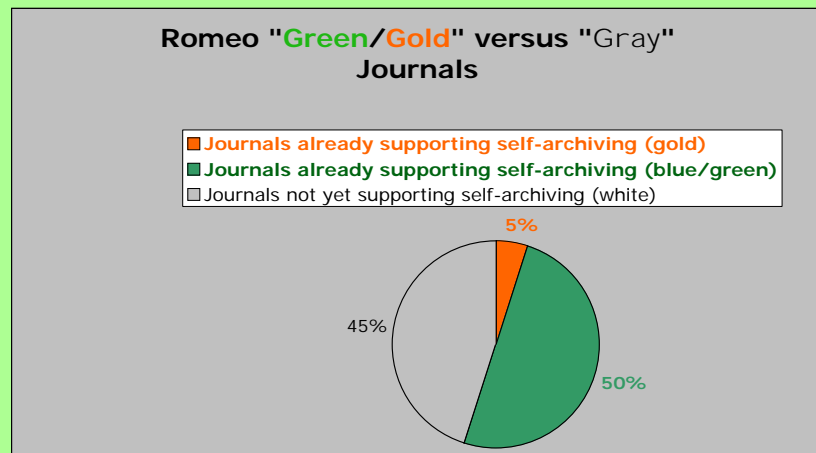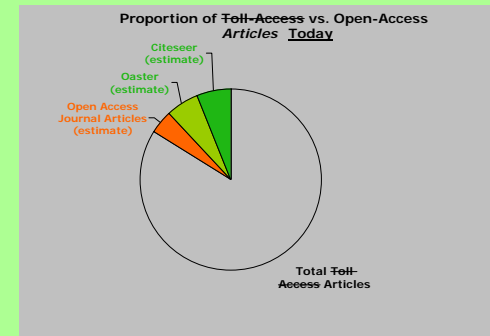| Year	Number of Papers
1990	5701
1991	6523
1992	13247
1993	21074
1994	28809
1995	39807
1996	44921
1997	56777
1998	77687
1999	85029
2000	106617
2001	152026
2002	172129
2003	243558

The optimal open-access strategy today: open-access publishing (5%) http://www.doaj.org/ plus open-access self-archiving (95%):

Open access is possible today for 5% of articles by publishing them in open access journals, and for at least 83% (but probably closer to 95%) of the rest by self-archiving them.
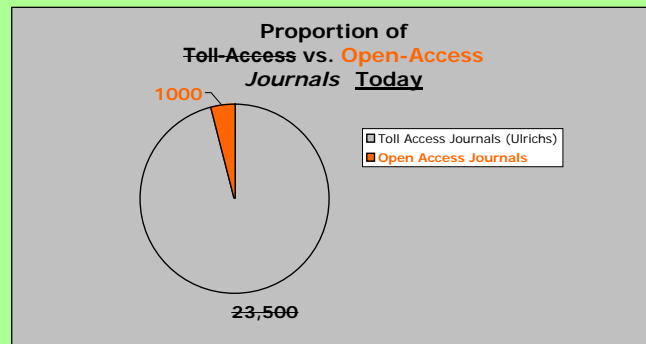
The optimal dual strategy is hence to
(1) publish your article in an open-access journal if a suitable one exists and otherwise:
(2) publish your article in a toll-access journal and also self-archive it in your institutional open-access eprint archive.

Proportion of Toll-Access vs. Open-Access Journals Today

1000

☐ Toll Access Journals (Ulrichs)
■ Open Access Journals

23,500

Proportion of Toll-Access vs. Open-Access Articles Today

Citeseer (estimate)

Oaster (estimate)

Open Access Journal Articles (estimate)

Total Toll-Access Articles

Romeo "Green/Gold" versus "Gray" Journals

■ Journals already supporting self-archiving (gold)
■ Journals already supporting self-archiving (blue/green)
☐ Journals not yet supporting self-archiving (white)

5%

45%

50%

The 100% Solution for providing immediate Open Access Today

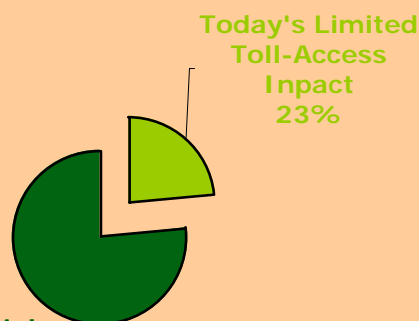■ Open Access Journals
■ Self-Archiving
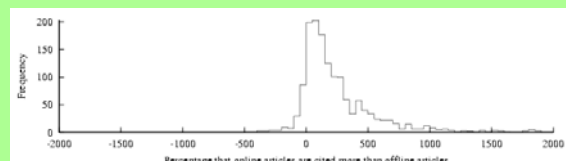
Quo usque tandem patientia nostra...?

How long will we go on letting our cumulative daily/monthly/yearly research-impact losses grow,

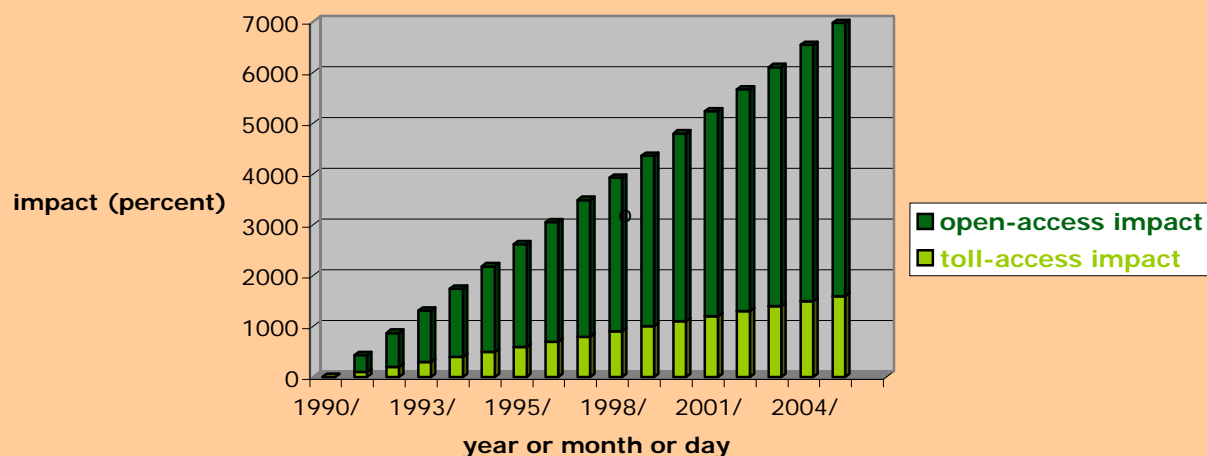*now that the online medium has made it all preventable?*

What we stand to gain:

Today's Limited Toll-Access Impact 23%

Lost Potential Open-Access Impact 77%
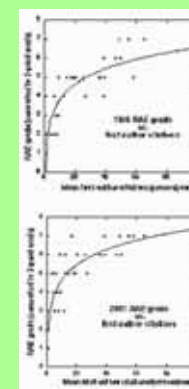
.91 correlation with UK research ranking and funding

Yearly/Monthly/Daily Impact Loss

impact (percent)

- open-access impact
- toll-access impact

year or month or day

336% higher impact

The two open-access strategies:
Gold and Green

Open-Access Publishing (OApub) (BOAI-2)

1. Create or Convert 23,000 open-access journals (1000 exist currently)
2. Find funding support for open-access publication costs ($500-$1500+)
3. Persuade the authors of the annual 2,500,000 articles to publish in new open-access journals _instead_ of the existing toll-access journals

Open-Access Self-Archiving (OAarch) (BOAI-1)

1. Persuade the authors of the annual 2,500,000 articles they publish in the existing toll-access journals to _also_ self-archive them in their institutional open-access archives.
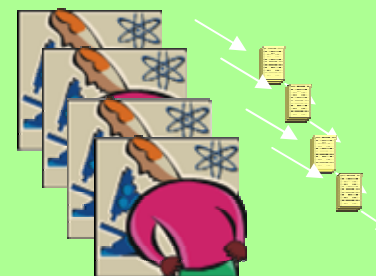
Dual open-access strategy

Gold: Publish your articles in an open-access journal whenever a suitable one exists today (currently 1000, <5%)

and

Green: Publish the rest of your articles in the toll-access journal of your choice (currently 23,000, >95%) <u>and</u> self-archive them in your institutional open-access eprint archives.

To Maximize Research Impact:

Research Funders:

1. **Mandate open access provision for all funded research via the gold or green strategies**

2. (Help cover open-access journal charges)

Research Institutions:

1. **Mandate open access provision for all research output via the gold or green strategies**

2. (Libraries redirect 1/3 of any eventual toll-cancellation windfall savings toward funding open-access journal charges)

Outcomes:

1. Authors either find an open-access (gold) journal or a green journal to publish in.

2. Gray publishers will turn green.

3. Eventually green publishers might turn gold, but in the meanwhile:

4. Open-access itself increases to 100%.

5. *Eventually toll-cancellation savings might increase to 100%*

6. *If so, then 1/3 of the growing institutional windfall toll-cancellation savings can pay for all institutional gold journal publication charges (peer review)*

Berlin Declaration
on
Open Access to Knowledge in the Sciences and Humanities

The pertinent passages:

"Open access [means]:

"1. free... [online, full-text] access

"2. A complete version of the [open-access] work... is deposited...
in at least one online repository... to enable open access,
unrestricted distribution, [OAI] interoperability, and long-term
archiving.

"[W]e intend to... encourag[e].. our researchers/grant recipients to
publish their work according to the principles of... open access."

The BOAI Self-Archiving FAQ
(BOAI-1)

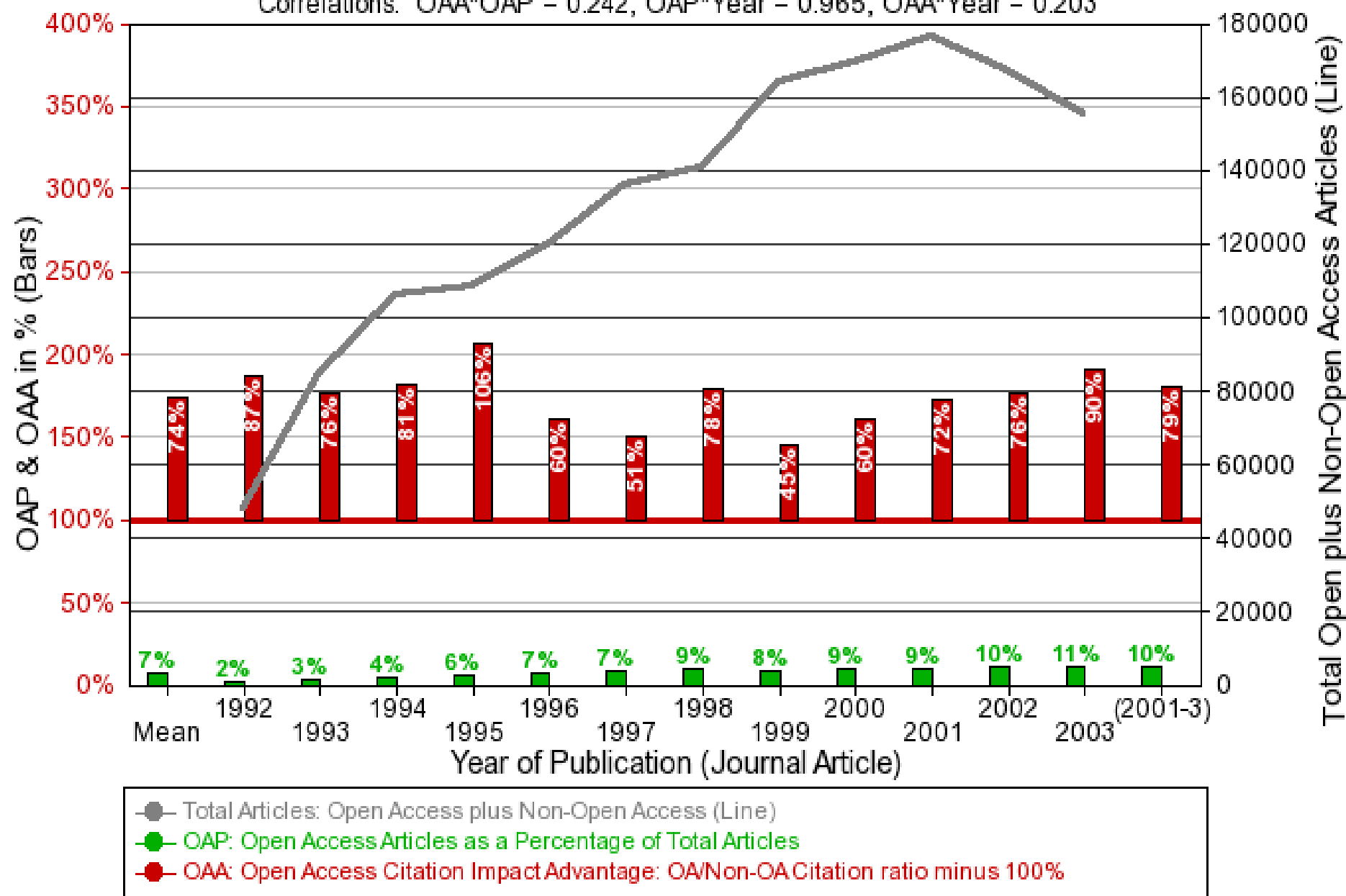**http://www.eprints.org/self-faq/**

http://www.soros.org/openaccess/

OA vs. Non-OA Citation Impact Advantage (All fields)
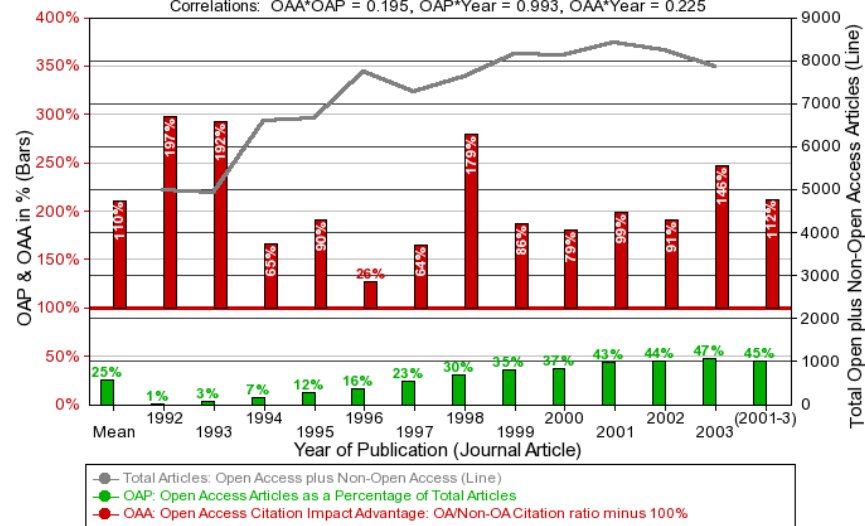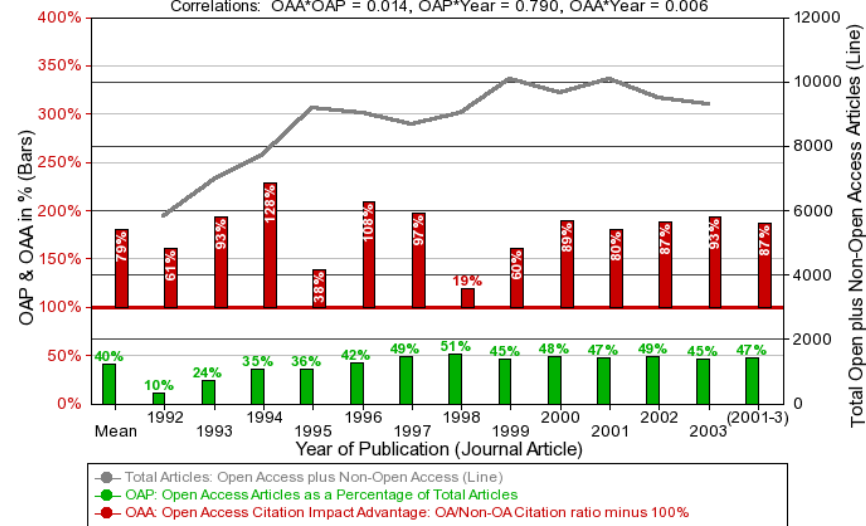
On average 319.9 journals/year (incl. self-citations) - Fri Aug 20 20:37:17 2004

Correlations: OAA*OAP = 0.242, OAP*Year = 0.965, OAA*Year = 0.203

Bar values (OAA): Mean 74%, 1992 87%, 1993 76%, 1994 81%, 1995 106%, 1996 60%, 1997 51%, 1998 78%, 1999 45%, 2000 60%, 2001 72%, 2002 76%, 2003 90%, (2001-3) 79%

OAP values: Mean 7%, 1992 2%, 1993 3%, 1994 4%, 1995 6%, 1996 7%, 1997 7%, 1998 9%, 1999 8%, 2000 9%, 2001 9%, 2002 10%, 2003 11%, (2001-3) 10%

Y-axis (left): OAP & OAA in % (Bars)
Y-axis (right): Total Open plus Non-Open Access Articles (Line)
X-axis: Year of Publication (Journal Article)

Legend:
- Total Articles: Open Access plus Non-Open Access (Line)
- OAP: Open Access Articles as a Percentage of Total Articles
- OAA: Open Access Citation Impact Advantage: OA/Non-OA Citation ratio minus 100%

Astrophysics

HEP/Nuclear Physics

General Physics

Chemical Physics

Physics/Mathematics
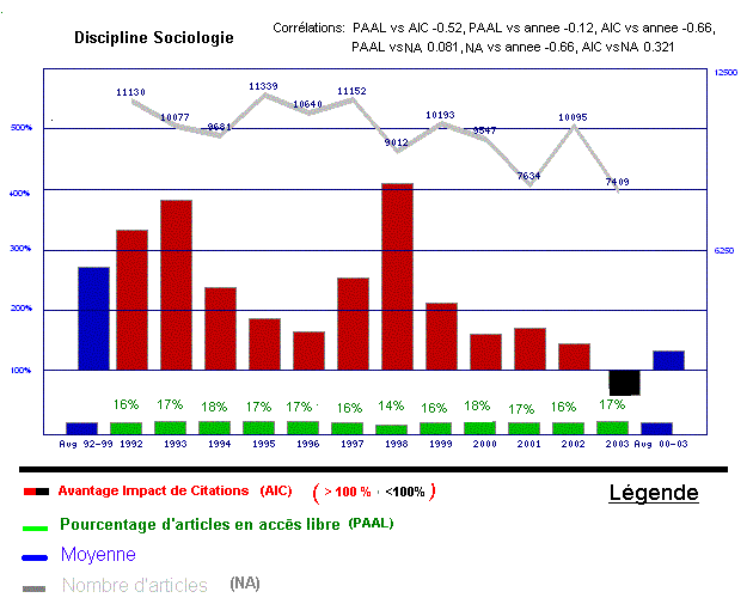
Social Sciences
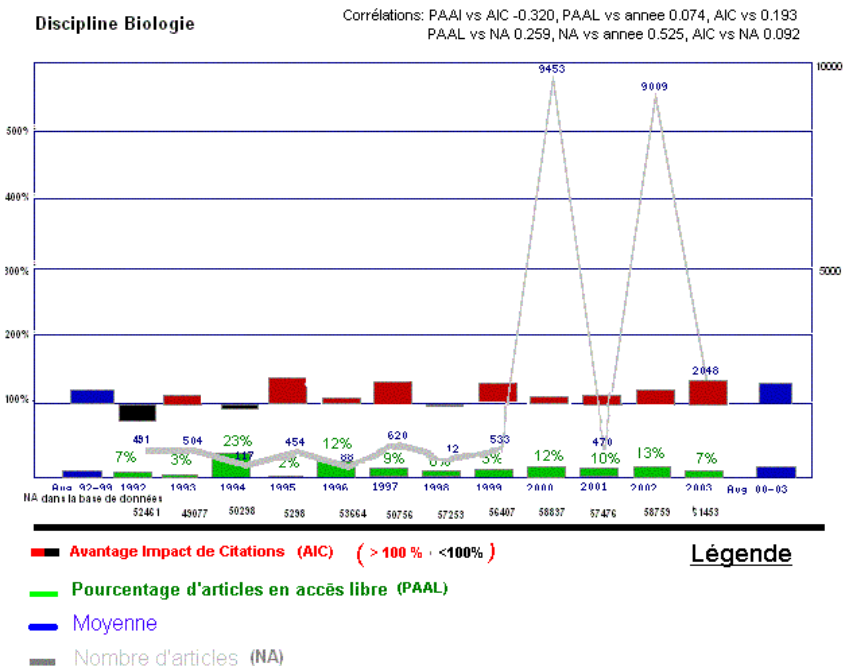
Biological Sciences

UK House of Commons Science and Technology Committee Recommendation to Mandate Institutional Self-Archiving

"This Report recommends that **all UK higher education institutions establish institutional repositories** on which their published output can be stored and from which it can be read, free of charge, online.

"It also recommends that **Research Councils and other Government Funders mandate their funded researchers to deposit a copy of all of their articles** in this way."

US House of Representatives Appropriations Committee Recommendation that the NIH should mandate self-archiving

(since passed by both House and Senate)

"The Committee… recommends NIH develop a policy… **requiring that a complete electronic copy of any Manuscript reporting work supported by NIH grants or contracts be… [made] freely and continuously available upon acceptance of the manuscript for publication** in any scientific journal."

Institutional Archives Registry: (221 Archives Registered)

http://archives.eprints.org/eprints.php

Country

* United States (57)
* United Kingdom (33)
* Canada (17)
* France (15)
* Sweden (13)
* Germany (12)
* Netherlands (12)
* Italy (11)
* Australia (9)
* India (4)
* Brazil (4)
* Hungary (4)
* China (4)
* Denmark (4)
* Mexico (2)
* Ireland (2)
* Austria (2)
* Japan (2)
* Portugal (2)
* South Africa (2)
* Belgium (2)
* Slovenia (1)
* Finland (1)
* Israel (1)
* Norway (1)
* Switzerland (1)
* Croatia (1)
* Peru (1)
* Spain (1)

Archive Type

* Research Institutional or Departmental (117)
* Research Cross-Institution (32)
* e-Theses (27)
* Demonstration (22)
* e-Journal/Publication (11)
* Other (10)
* Database (2)

Software

* GNU EPrints v2 (122)
* GNU EPrints v1 (18)
* DSpace (28)
* ARNO (2)
* DiVA (1)
* CDSWare (1)
* other (49)

RoMEO Directory of Publishers who have given their Green Light to Self-Archiving
http://www.sherpa.ac.uk/romeo.php
http://romeo.eprints.org

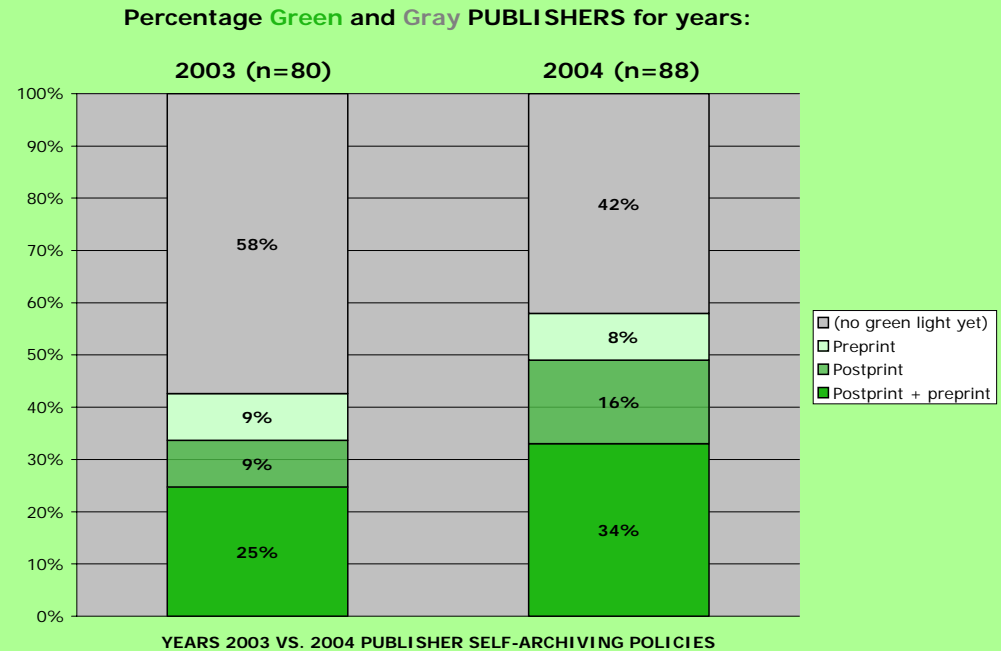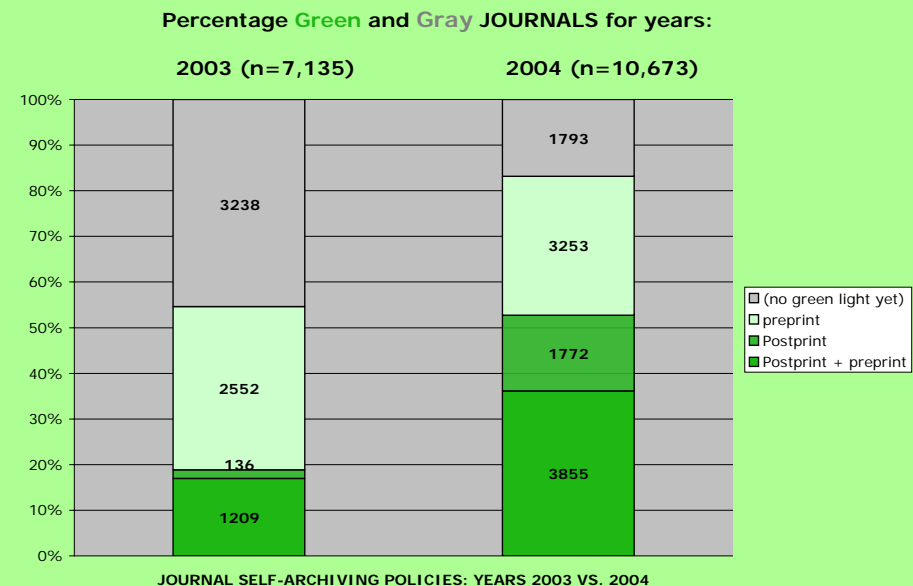**Proportion of journals already formally giving their green light to author/institution self-archiving (already 92%) continues to grow:**

Green light to self-archive:	Journals	%	Publishers	%
	8919	(100%)	107	(100%)
Neither yet	695	8%	34	32%
Preprint	2470	+27% (= **92%**)	7	+7% (= 69%)
Postprint	5754	65%	66	62%

Percentage of green PUBLISHERS grew from **42% - 58%** from 2003-2004

Percentage of green JOURNALS grew from **55% - 83%** from 2003-2004

Percentage Green and Gray PUBLISHERS for years:

2003 (n=80)   2004 (n=88)

- (no green light yet)
- Preprint
- Postprint
- Postprint + preprint

2003:
- 58%
- 9%
- 9%
- 25%

2004:
- 42%
- 8%
- 16%
- 34%

YEARS 2003 VS. 2004 PUBLISHER SELF-ARCHIVING POLICIES

Percentage Green and Gray JOURNALS for years:

2003 (n=7,135)   2004 (n=10,673)

- (no green light yet)
- preprint
- Postprint
- Postprint + preprint

2003:
- 3238
- 2552
- 136
- 1209

2004:
- 1793
- 3253
- 1772
- 3855

JOURNAL SELF-ARCHIVING POLICIES: YEARS 2003 VS. 2004

Growth of University Eprints.org Archives and Contents

http://archives.eprints.org/eprints.php

Growth of GNU EPrints Archives and Contents
Generated by http://archives.eprints.org/
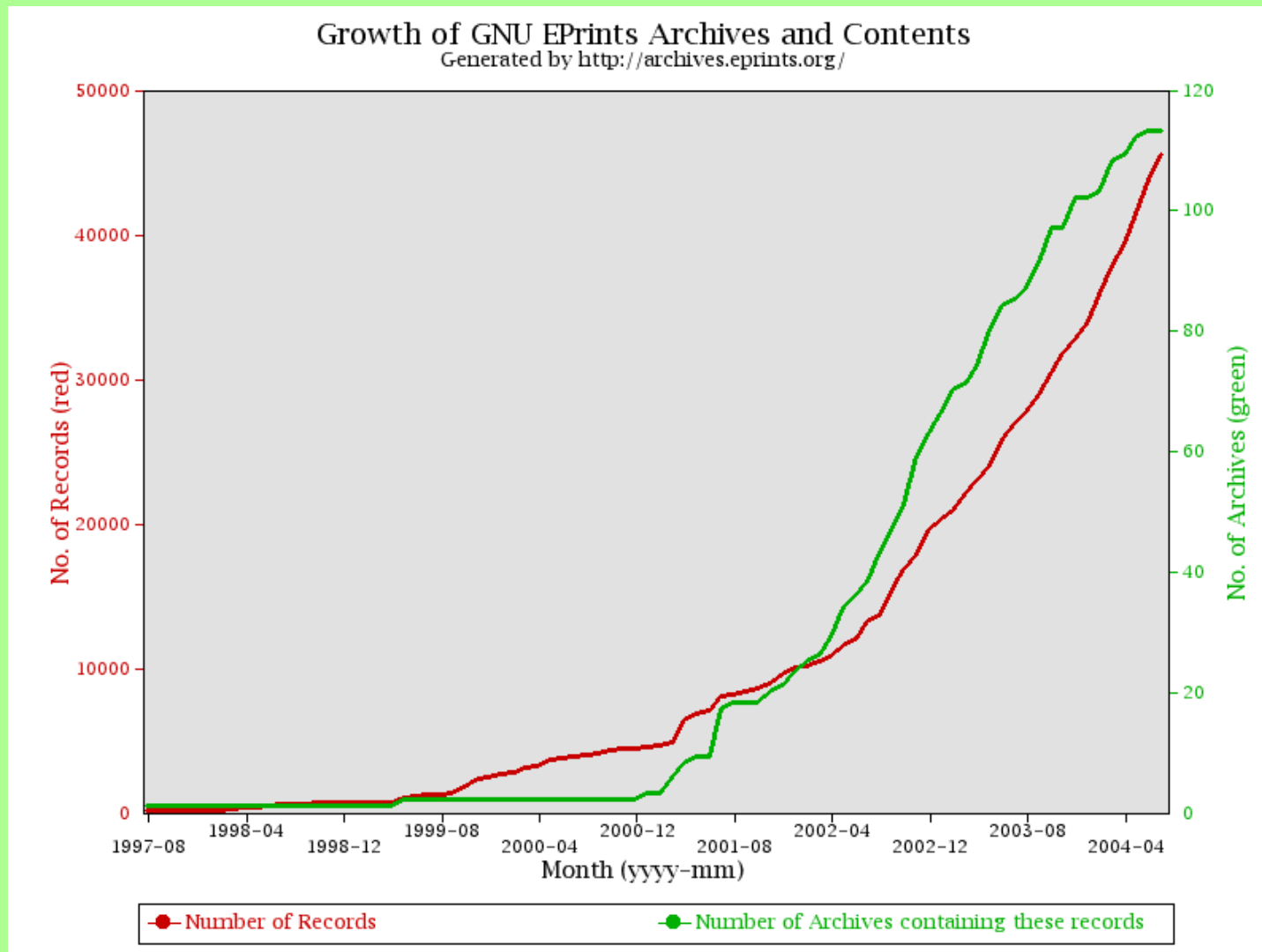
Archives flagged as 'Research Institutional'. The datestamps of records as exported by the archive's OAI-PMH interface is used to plot a cumulative graph of records over time. The date of the earliest OAI-PMH record is used to show the number of cumulative archives over time.

http://archives.eprints.org/eprints.php

Growth of Institutional Archives and Contents
Generated by http://archives.eprints.org/
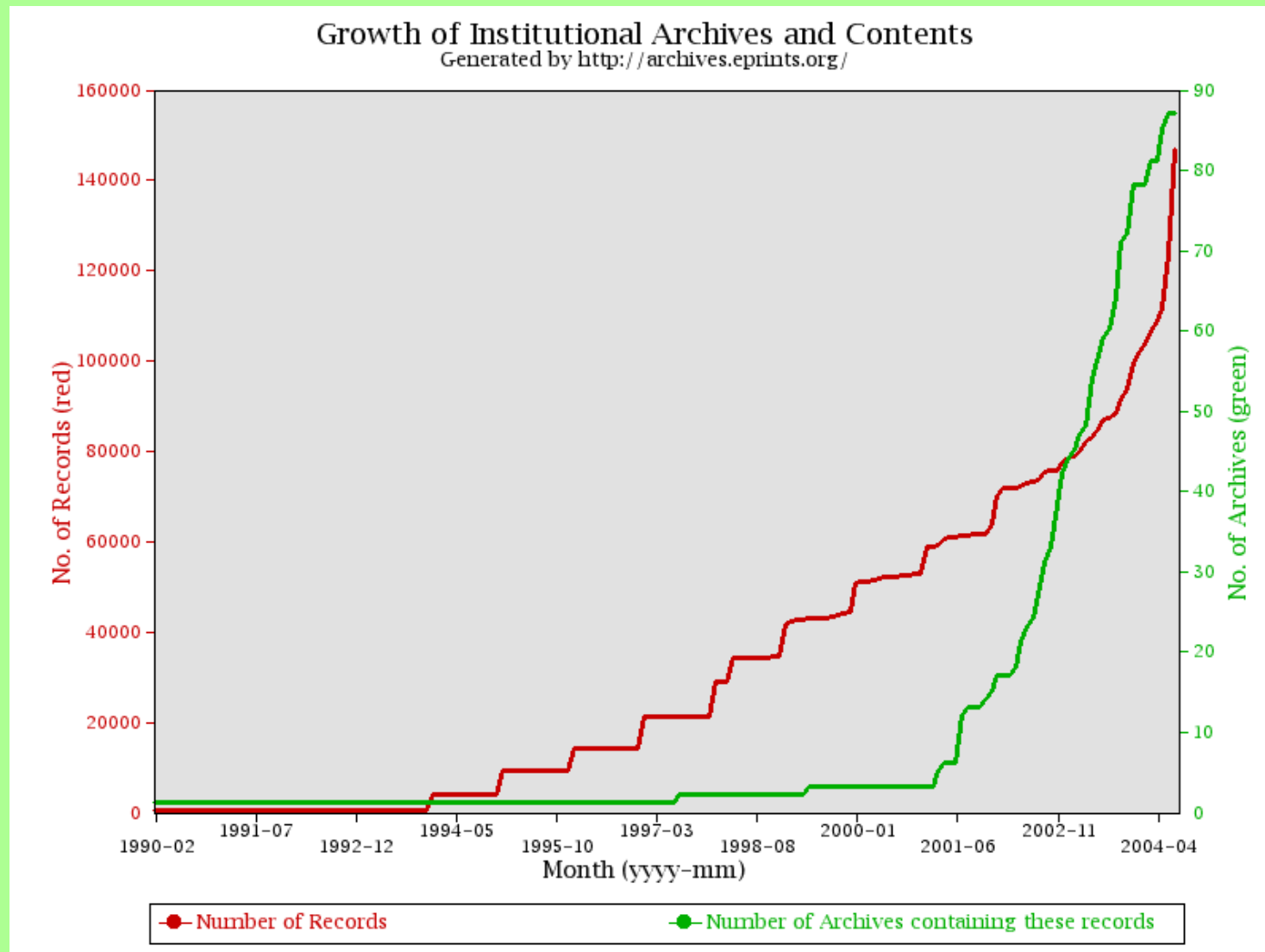
Declaration of Institutional Commitment
to implementing
the Berlin Declaration on open-access provision

Our institution hereby commits itself to adopting and implementing an official institutional policy of providing open access to our own peer-reviewed research output -- i.e., toll-free, full-text online access, for all would-be users webwide -- in accordance with the Budapest Open Access Initiative and the Berlin Declaration

UNIFIED OPEN-ACCESS PROVISION POLICY:

(OAJ) Researchers publish their research in an open-access journal if a suitable one exists

otherwise

(OAA) Researchers publish their research in a suitable toll-access journal and also self-archive it in their own research institution's open-access research archive.
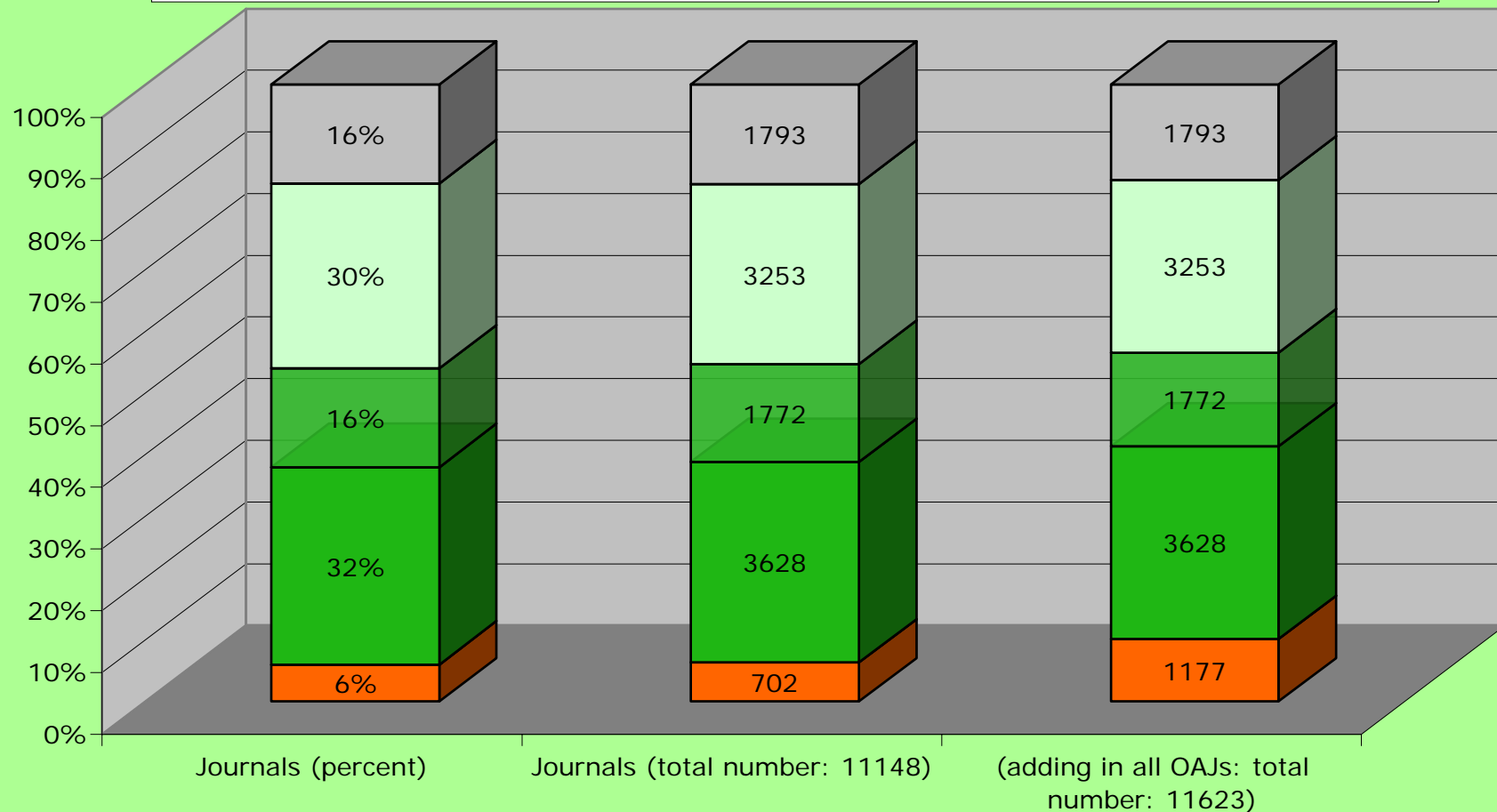
To sign: **http://www.eprints.org/signup/sign.php**

A JISC survey (Swan & Brown 2004) "asked authors to say how they would feel **if their employer or funding body required them** to deposit copies of their published articles in one or more… repositories. The **vast majority**... said they **would do so willingly**."

http://www.jisc.ac.uk/uploaded_documents/JISCOAreport1.pdf

Gold (OA), Green (S-A) & Gray Journals

- ☐ GRAY: No green light yet
- ☐ PALE-GREEN: Green Light for Author Preprint Self-Archiving (S-A)
- **GREEN (spotted): Green Light for Author Postprint Self-Archiving (S-A)**
- **GREEN (solid): Green Light for Author Postprint and Preprint Self-Archiving (S-A)**
- **GOLD: Open Access Journals (OAJ) http://www.doaj.org/**

	Journals (percent)	Journals (total number: 11148)	(adding in all OAJs: total number: 11623)
GRAY	16%	1793	1793
PALE-GREEN	30%	3253	3253
GREEN (spotted)	16%	1772	1772
GREEN (solid)	32%	3628	3628
GOLD	6%	702	1177

Central/Discipline-Based Self-Archiving
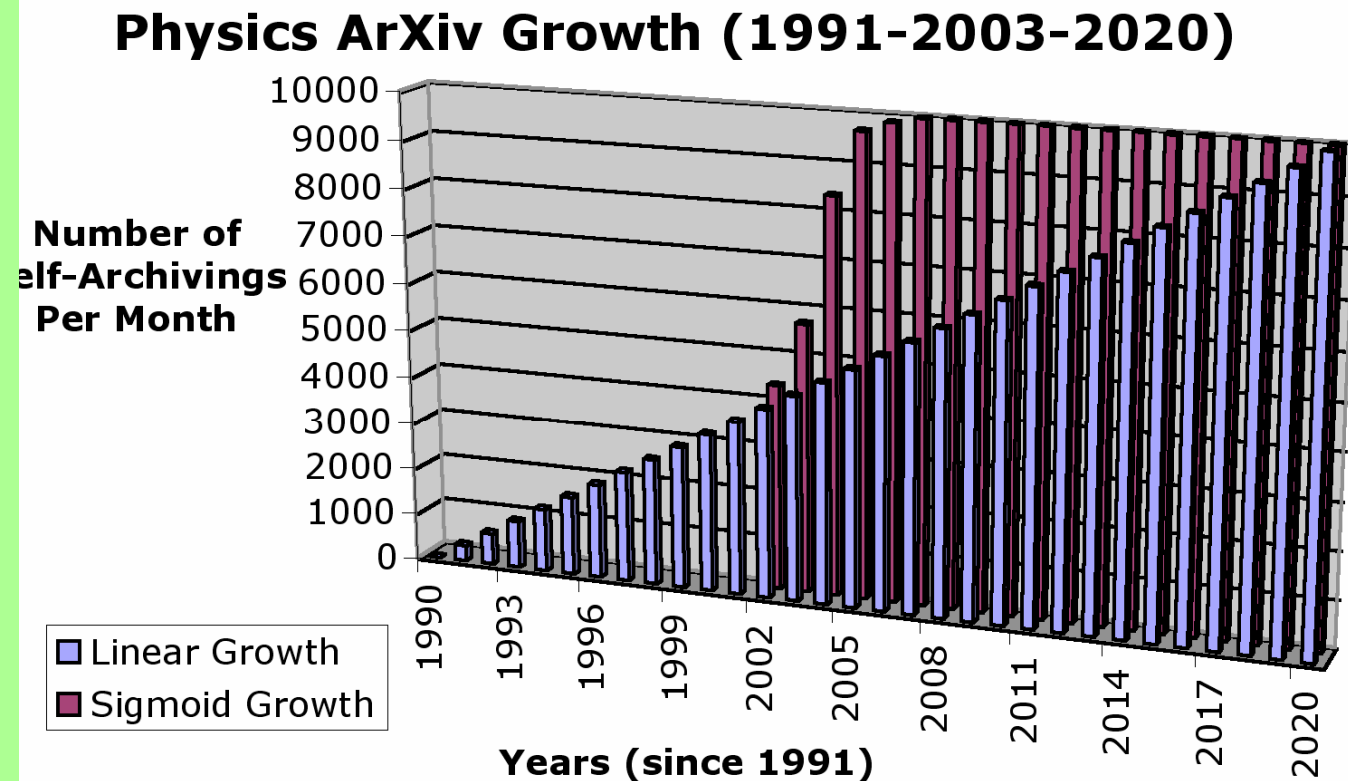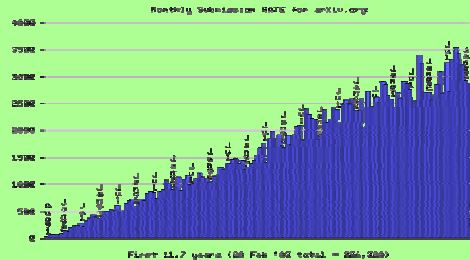# vs
Distributed Institutional/Departmental Self-Archiving

- **All OAI-compliant Archives (Central and Institutional) are <u>interoperable and functionally equivalent</u>**

- **<u>Researchers and their institutions</u> (but not researchers and their disciplines) <u>share a common stake</u> in their research impact**

- **A self-archiving <u>mandate will propagate quickly and naturally across departments and institutions</u> if archiving is institutional, not if archiving is central**

- **Institutions can <u>monitor compliance, measure impact, and share the distributed archiving cost</u>**

- **Institutional archive contents <u>can be automatically harvested into central archives</u> (metadata alone, or full-texts too)**

- **UK JISC report recommends distributed self-archiving and harvesting rather than central archiving**

- **92% of journals have given green light to author self-archiving but many are <u>reluctant to endorse 3rd-party archiving</u> (which could sanction to free-loading rival re-publishers)**

Even the fastest-growing archive, the Physics ArXiv, is still only growing
linearly (since 1991):
At that rate, it would still take a decade
before we reach the first year that all physics
papers for *that year* are openly accessible
(Ebs Hilf estimates *2050*!)

Physics ArXiv Growth (1991-2003-2020)

Number of
elf-Archivings
Per Month

☐ Linear Growth
■ Sigmoid Growth

Years (since 1991)

Four reasons for research impact
(shared by researcher and institution but not by researcher and discipline)

1. Contributions to Knowledge

2. Employment, Salary, Promotion, Tenure, Prizes

3. Research Funding, Resourcing

4. Institutional Overheads, Prestige (attracting teachers, students, researchers, industrial collaboration)

Don't conflate the different forms of institutional archiving:
Only the 5th is relevant here

1. Institutional digital collection management

2. Institutional digital preservation

3. Institutional digital courseware

4. Institutional digital publishing

5. **Institutional self-archiving of refereed research output**
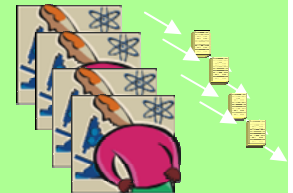
Would-be peer review reformers, please remember:

- The pressing problem is to free peer-reviewed research access and impact from <u>tolls</u>:
- not from <u>peer review</u>!

- If you have a peer-review reform hypothesis,
- please take it elsewhere,
- and test it,
- and then let us all know how it comes out…

- Meanwhile,
- please let us free peer-reviewed research
- such as it is!

Universal Access
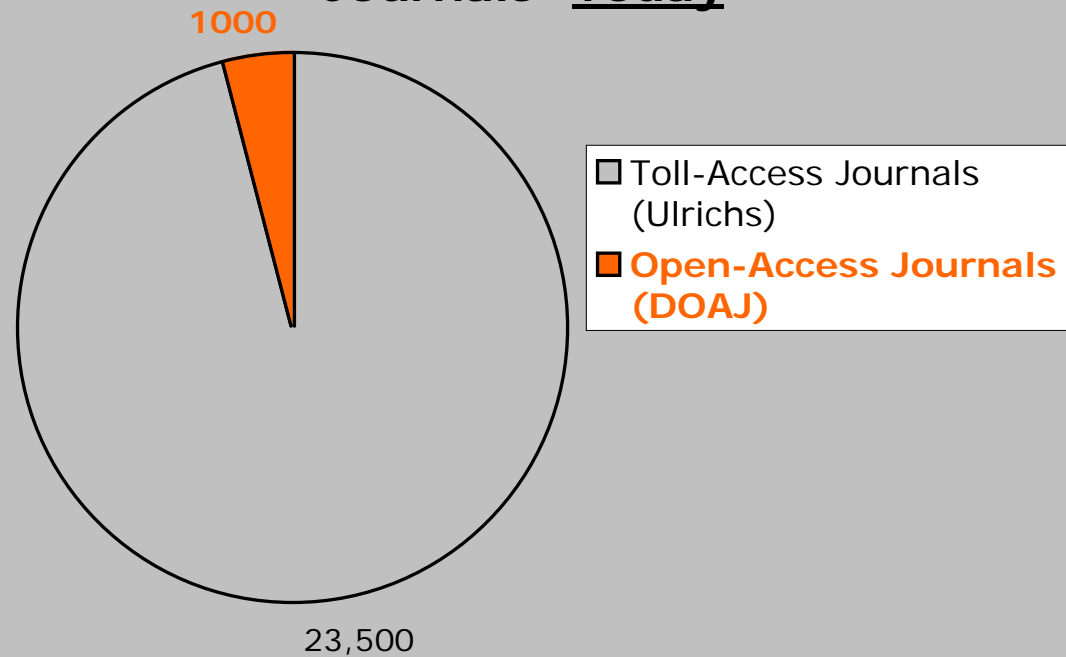# Through Affordable Licensing?

Open access through author/institution self-archiving is a <u>parallel</u> self-help
measure for researchers, to prevent further impact-loss now. Open access is
a <u>*supplement*</u> to toll-access, but not necessarily a <u>*substitute*</u> for it.

One possible outcome is that the toll access and open access versions will
peacefully co-exist in perpetuity, with all researchers using the toll-access
versions of the research their own institutions can afford and the open-
access versions of the rest. The more affordable the toll-access licenses, the
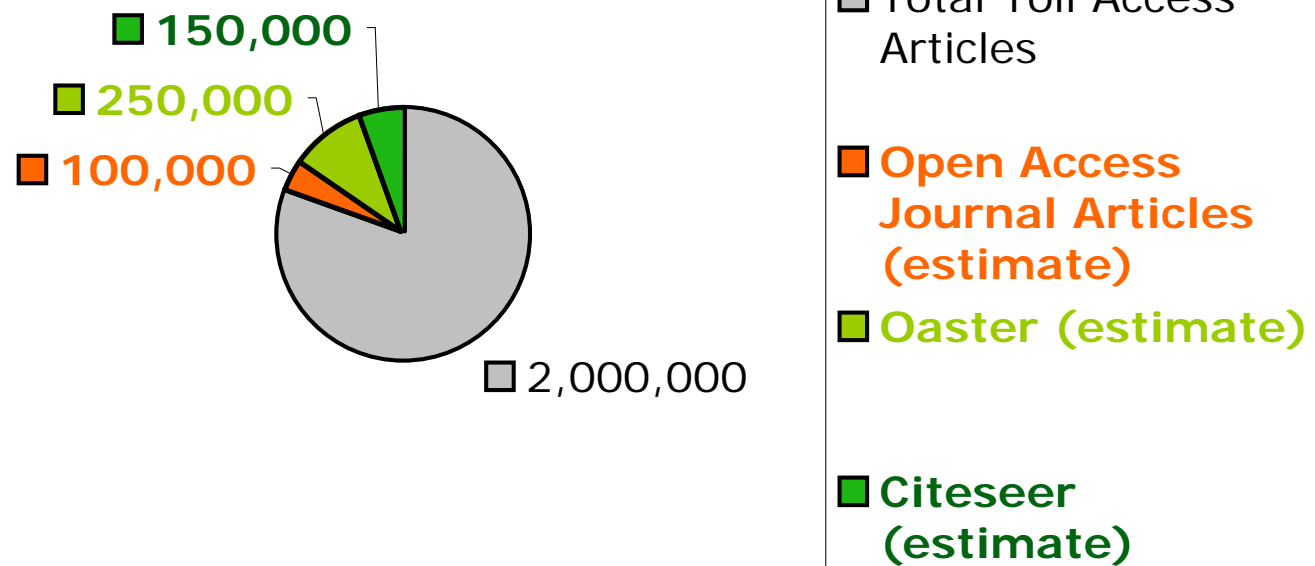less researchers will need to use the open-access versions.

Even if the growth of the open-access versions is destined eventually to reduce
the demand for the toll-access versions, that is a long way off, because self-
archiving proceeds gradually and anarchically, and journals cannot be
cancelled while only random parts of their contents are openly accessible.

If and when open accessibility does reduce the demand for the toll-access
versions, this will at the same time be creating windfall savings for
institutions on their periodical budgets -- savings which will then be
available to institutions to pay for peer-review service provision up-front to
those journals that are ready to convert to becoming open-access journals.

Proportion of
~~Toll-Access~~ and Open-Access
Journals <u>Today</u>

1000

□ Toll-Access Journals (Ulrichs)
■ Open-Access Journals (DOAJ)

23,500

Proportion of
Toll-Access and Open-Access
Articles Today

150,000

250,000

100,000

2,000,000

☐ Total Toll Access Articles

☐ Open Access Journal Articles (estimate)
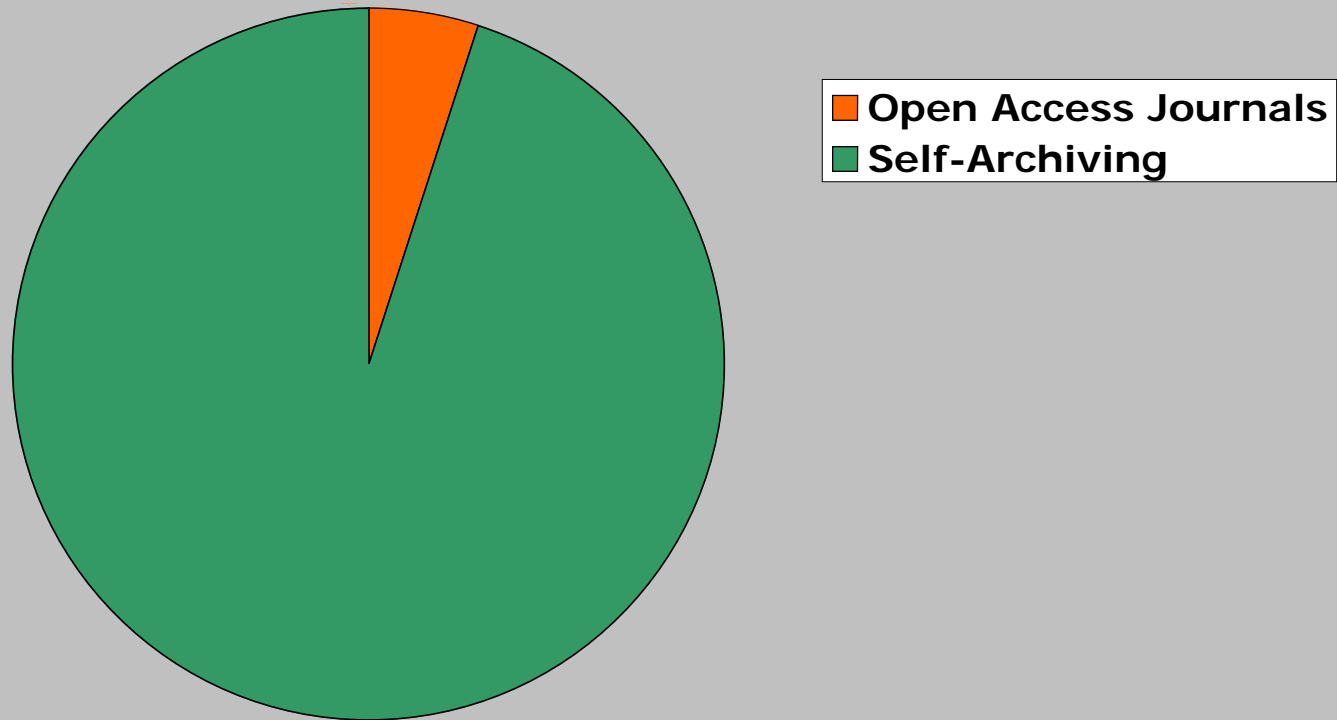
☐ Oaster (estimate)

☐ Citeseer (estimate)

Romeo "Green/Gold" versus "Gray" Journals

- ■ Journals already supporting self-archiving (gold)
- ■ Journals already supporting self-archiving (green)
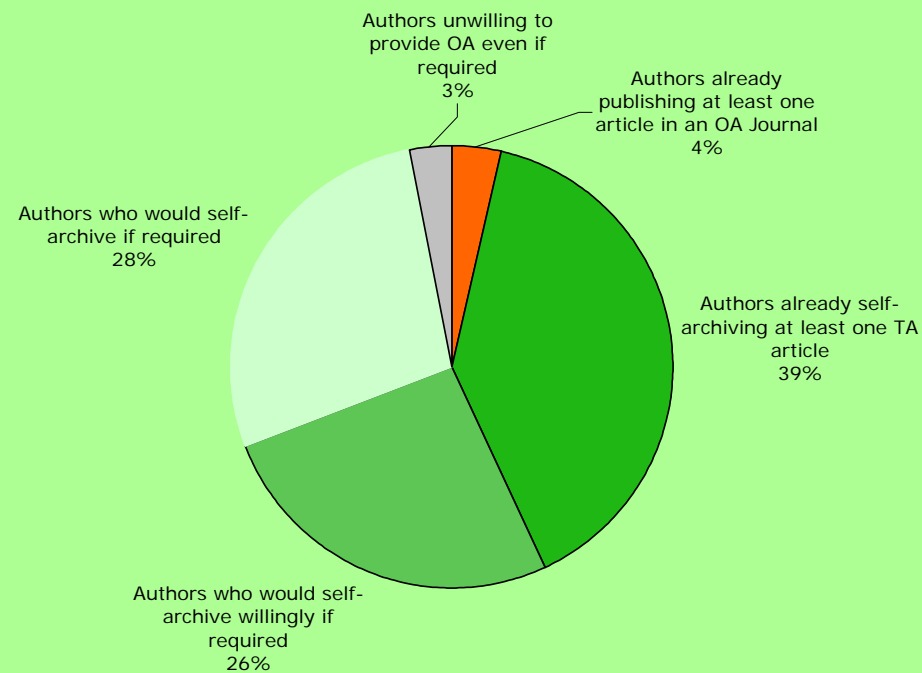- ☐ Journals not yet supporting self-archiving gray)

5%

17%

78%

The 100% Solution for providing immediate Open Access Today

Legend:
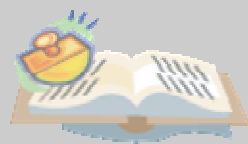- Open Access Journals
- Self-Archiving
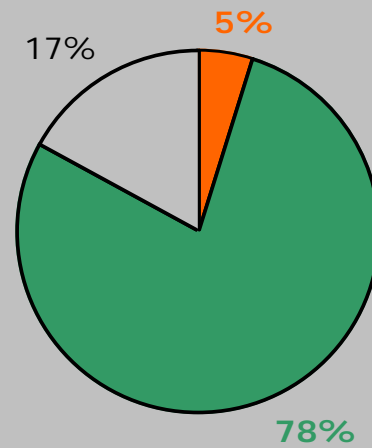
Swan & Brown (2004)
39% of authors self-archive
69% would self-archive willingly if required

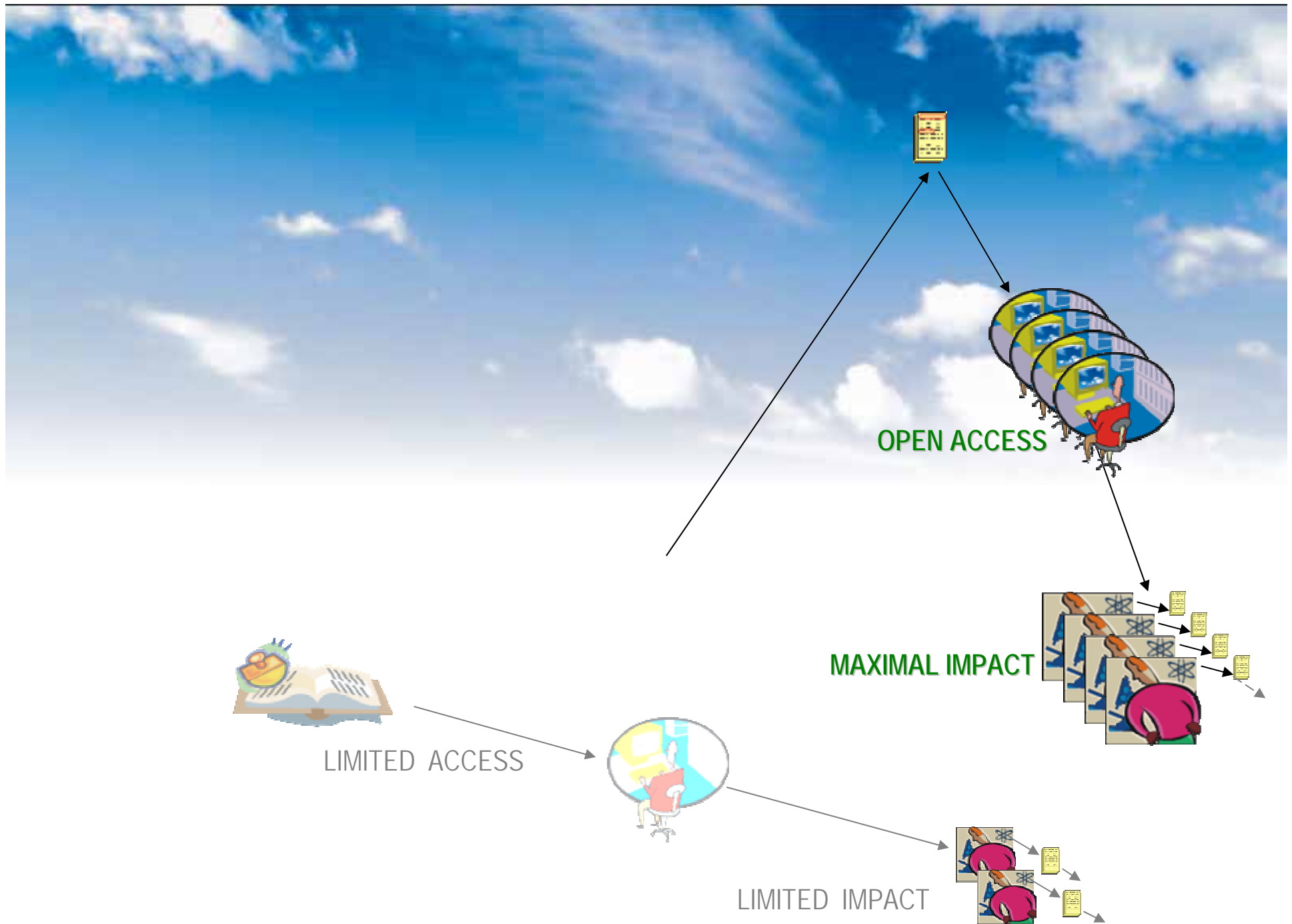**Actual and potential proportions of Open Access Arcticles**

Authors unwilling to provide OA even if required
3%

Authors already publishing at least one article in an OA Journal
4%

Authors who would self-archive if required
28%

Authors already self-archiving at least one TA article
39%

Authors who would self-archive willingly if required
26%

LIMITED ACCESS

LIMITED IMPACT

OPEN ACCESS

MAXIMAL IMPACT

LIMITED ACCESS

LIMITED IMPACT

BOAI Self-Archiving FAQ http://www.eprints.org/self-faq/

What-is/why/how FAQs:
- What is self-archiving?
- What is the Open Archives Initiative (OAI)?
- What is OAI-compliance?
- What is an Eprint Archive?
- How can I or my institution create an Eprint Archive?
- How can an institution facilitate the filling of its Eprint Archives?
- What is the purpose of self-archiving?
- What is the difference between distributed and central self-archiving?
- What is the difference between institutional and central Eprint Archives?
- Who should self-archive?
- What is an Eprint?
- Why should one self-archive?
- What should be self-archived?
- Is self-archiving publication?
- What about copyright?
- What if my copyright transfer agreement explicitly forbids self-archiving?
- Peer-review reform: Why bother with peer review?
- Is self-archiving legal?
- What if the publisher forbids preprint self-archiving?

What-to-do FAQs:
- What can researcher/authors do to facilitate self-archiving?
- What can researchers' institutions do to facilitate self-archiving?
- What can libraries do to facilitate self-archiving?
- What can research funders do to facilitate self-archiving?
- What can publishers do to facilitate self-archiving?

BOAI Self-Archiving FAQ   http://www.eprints.org/self-faq/

"I-worry-about..." 32 FAQs (sub-grouped thematically)

http://www.ecs.soton.ac.uk/~harnad/intpub.html

Harnad, S. (1990) Scholarly Skywriting and the Prepublication Continuum of Scientific Inquiry. Psychological Science 1: 342 - 343 (reprinted in Current Contents 45: 9-13, November 11 1991). http://cogprints.soton.ac.uk/documents/disk0/00/00/15/81/

Harnad, S. (1994) A Subversive Proposal. In: Ann Okerson & James O'Donnell (Eds.) Scholarly Journals at the Crossroads: A Subversive Proposal for Electronic Publishing. Washington, DC., Association of Research Libraries, June 1995. http://www.arl.org/scomm/subversive/toc.html

Harnad, S. (2001) For Whom the Gate Tolls? How and Why to Free the Refereed Research Literature Online Through Author/Institution Self-Archiving, Now. http://cogprints.soton.ac.uk/documents/disk0/00/00/16/39/

Harnad, S., Carr, L., Brody, T. & Oppenheim, C. (2003) Mandated online RAE CVs Linked to University Eprint Archives: Improving the UK Research Assessment Exercise whilst making it cheaper and easier. Ariadne 35 http://www.ariadne.ac.uk/issue35 harnad/ /

Harnad, S. (2003) Electronic Preprints and Postprints. Encyclopedia of Library and Information Science Marcel Dekker, Inc.
http://www.ecs.soton.ac.uk/~harnad/Temp/eprints.htm

Harnad, S. (2003) Online Archives for Peer-Reviewed Journal Publications. International Encyclopedia of Library and Information Science. John Feather & Paul Sturges (eds). Routledge. http://www.ecs.soton.ac.uk/~harnad/Temp/archives.htm

OA advantage =
EA + AA + QB + OA + UA + SA

1. **EA: Early Advantage**: Permanent citation increment for preprint (not just phase-shift advantage in timing)

2. **AA: Arxiv Advantage**: (Physics/maths only) citation advantage for Arxiv even with 100% OA (astro, hep)

3. **QB: Quality Bias**: Higher-citation authors/papers self-archived more: self-selection bias

4. **OA: Open Access**: OA enhances citations 50%-400%+ (<u>relative advantage only</u>; disappears at 100% OA)

5. **UA: Usage Advantage**: OA enhances downloads 300%+ (<u>absolute advantage</u>; persists at 100%OA)

6. **SA: Selectivity Advantage**: At 100% OA, researchers do not cite more, but can use and cite the best and most relevant work (not just what their institutions can afford to access)