



# Ensuring Open Access is Always Access: A Framework for Multi-Agency Actions

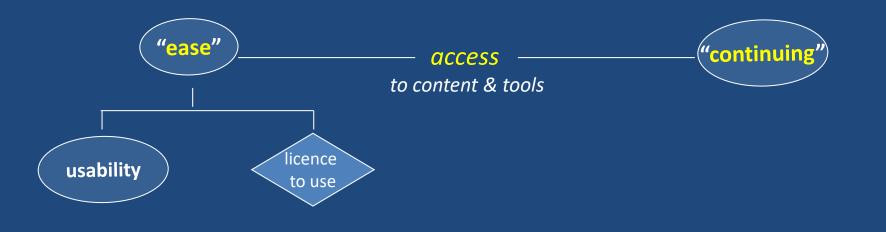
Peter Burnhill, University of Edinburgh Gaëlle Béquet, ISSN International Centre

IFLA Sections on Serials and Continuous Resources and on Acquisitions and Collection Development 16/17th August in Gdańsk, Poland

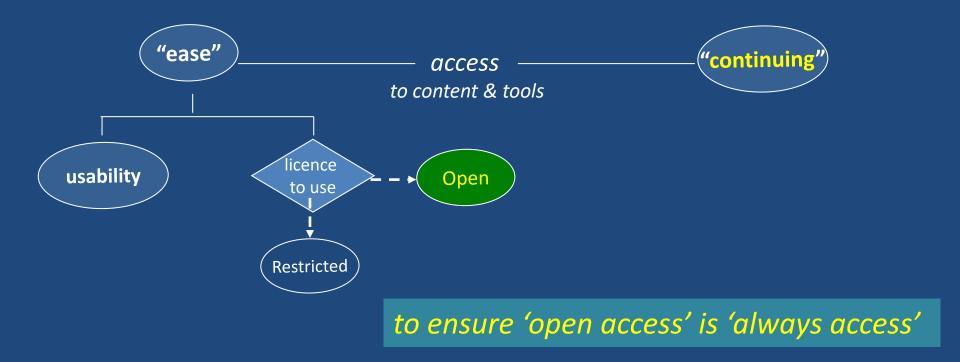
# What we know ... Digital back copy is not in the custody of libraries



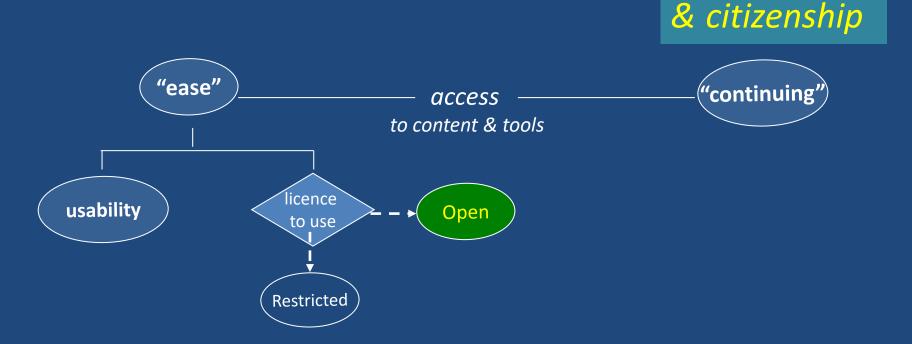
Stewardship now has to be shared: to ensure ease and continuing access to online resources needed for scholarship

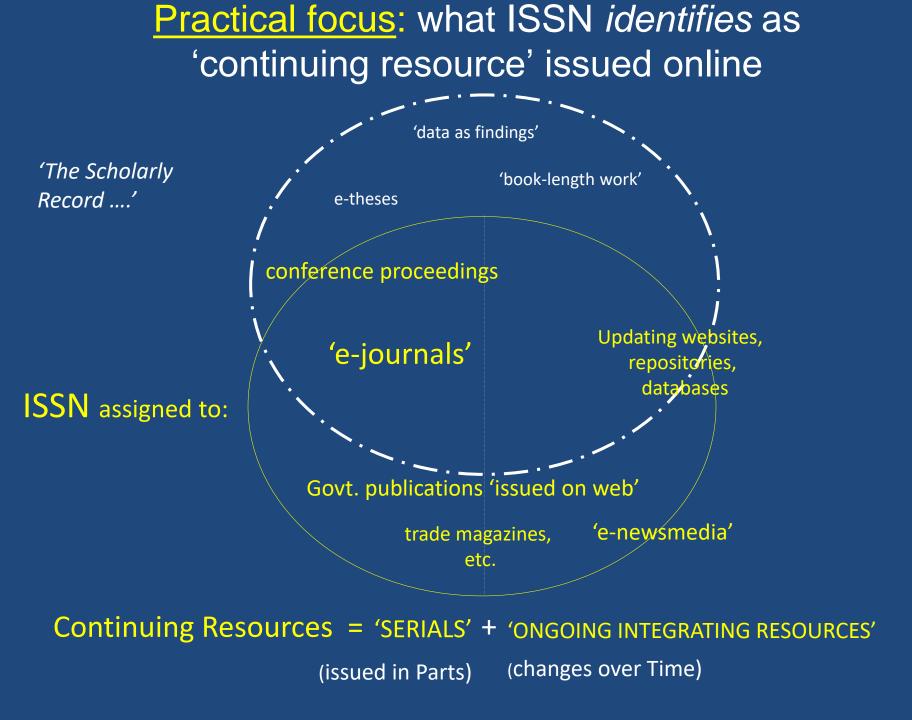


Stewardship as a shared task : to ensure ease and continuing access to online resources needed for scholarship



Stewardship as a shared task : to ensure ease and continuing access to the published heritage needed for scholarship



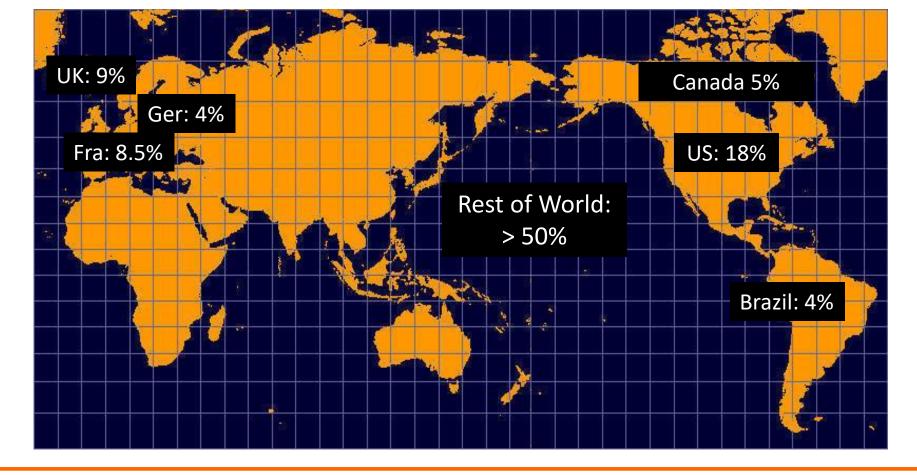


# Massive increase in e-serials over past 18 years

72,337 in 2009 97,563 in 2011 132,806 in 2013 177, 631 in 2015 187,445 in 2016 200,000+ in 2017

as measured by ISSNs for 'online continuing resources' in the ISSN Register

Country	ISSN
TOTAL	187,445
USA	33,848
UK	16,624
FRANCE	15,962
CANADA	9,373
GERMANY	8,167
BRAZIL	8,054
SPAIN	7,168
INDIA	6,034
AUSTRALIA	5,828
INTERNATIONAL	5,409
NETHERLANDS	5,295
ITALY	4,380
FINLAND	4,151
DENMARK	3,674
NEW ZEALAND	2,958
POLAND	2,895
JAPAN	2,707
ROMANIA	2,508
RUSSIA	2,474
CZECH REP	2,248
NORWAY	2,104
ARGENTINA	2,095
SWITZERLAND	2,048
INDONESIA	1,822
HUNGARY	1,679
IRAN	1 327



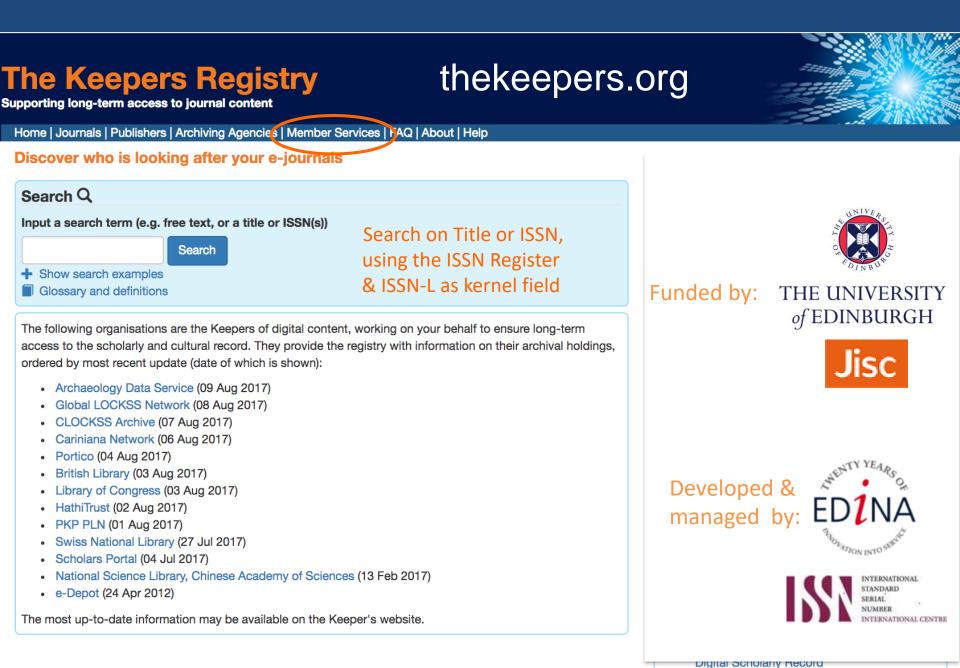
Researchers (& libraries) in any one country depend on content written & published as serials in countries other than their own

%age of 187,445 ISSN assigned to 'e' (1 Dec. 2016)



Starting with some good news ... 1. Growing number of Keepers of archived serial content **CLOCKSS & Portico -** web-scale dependent upon earnings from publishers + funds from libraries 'the nationals' – with government-backed mission statements: **British Library** NATIONAL LIBRARY OF POLAND Not yet Cariniana Network/IBICT (Brazil) **KB/Netherlands** (e-Depot) nor BnF, DnB, LAC ... Library of Congress National Science Library, Chinese Ac of Sciences Swiss National Library Archaeology Data Service (UK) 'university-based cooperatives' - self-funded operations: 3 LOCKSS Program [& Private LOCKSS Networks] HathiTrust **Scholars Portal** Public Knowledge Project/ PLN [OJS]

#### 2. We have means to search across those digital shelves



### Use Member Services area to discover archival status

Print ISSN	Electronic IS	Title	Publisher	
0001-4788	2159-4260	Accounting and Business	Taylor and Francis	
1212-2580	1805-9341	Plant Protection Science	Czech Academy of Agricult	1. Upload a file
0959-535X	1756-1833	BMJ	BMJ Group	en e
1553-734X	1553-7358	PLOS Computational Bio	Public Library of Science	of ISSN
0950-382X	1365-2958	Molecular Microbiology	Wiley-Blackwell	+ any extra
0950-222X	1476-5454	Eye	Nature Publishing Group	
2049-8764	2049-8772	Information and Inferen	Oxford University Press	as CSV file
2211-5242	2211-5242	Disability, CBR and Inclus	SAGE Publications	us csv jile
1355-5502	1750-0133	Journal of Victorian Cult	Edinburgh University Press	
2049-4572	1364-0429	Journal of Conservation	Ubiquity Press	

#### 2. Download file with ISSN-L + Number of Agencies + Archiving Agencies + link to KR record

Print ISSN	Electronic IS	!Title	Publisher	KR: ISSN-L	KR: No	KR: Matching Agencies KR: Direct Link to Record
0001-4788	2159-4260	Accounting and Business	Taylor and F	r 0001-4788	4	Scholars Portal, Portico, CLOCKSS http://thekeepers.org/purl/issn/0001-4788
0950-382X	1365-2958	Molecular Microbiology	Wiley-Black	w 0950-382X	4	Scholars Portal, Portico, e-Depot, http://thekeepers.org/purl/issn/0950-382X
1355-5502	1750-0133	Journal of Victorian Cultu	nEdinburgh U	lt 1355-550 <mark>2</mark>	4	Scholars Portal, Portico, CLOCKSS http://thekeepers.org/purl/issn/1355-5502
2049-8764	2049-8772	Information and Inferenc	Oxford Univ	e <b>2049-876</b> 4	3	Portico, CLOCKSS Archive, Global http://thekeepers.org/purl/issn/2049-8764
0959-535X	1756-1833	BMJ	BMJ Group	0959-815 <mark>4</mark>	2	Global LOCKSS Network, HathiTruhttp://thekeepers.org/purl/issn/0959-8154
0950-222X	1476-5454	Eye	Nature Publ	i: <b>0950-222</b> X	2	Portico, CLOCKSS Archive http://thekeepers.org/purl/issn/0950-222X
2049-4572	1364-0429	Journal of Conservation 8	& Ubiquity Pre	e: 2049-457 <mark>2</mark>	2	CLOCKSS Archive, Global LOCKSS   http://thekeepers.org/purl/issn/2049-4572
1553-734X	1553-7358	PLOS Computational Biol	c Public Librai	n <b>1553-734</b> X	1	lobal LOCKSS Network http://thekeepers.org/purl/issn/1553-734X
1212-2580	1805-9341	Plant Protection Science	Czech Acade	e <b>1805-9341</b>		
2211-5242	2211-5242	Disability, CBR & Inclusive	e VU e-Publisł	n <b>2211-5242</b>	$\setminus$ /	

## 3. Can use it as 'Observatory', providing evidence / data

#### **The Keepers Registry**

Supporting long-term access to journal content

Home | Journals | Publishers | Archiving Agencies | Member Services | FAQ | About | Help

Discover who is looking after your e-journals

#### Search Q

Input a search term (e.g. free text, or a title or ISSN(s))

Search

+ Show search examples

Glossary and definitions

The following organisations are the Keepers of digital content, working on your behalf to ensure long-term access to the scholarly and cultural record. They provide the registry with information on their archival holdings, ordered by most recent update (date of which is shown):

- Archaeology Data Service (09 Aug 2017)
- Global LOCKSS Network (08 Aug 2017)
- CLOCKSS Archive (07 Aug 2017)
- Cariniana Network (06 Aug 2017)
- Portico (04 Aug 2017)
- British Library (03 Aug 2017)
- Library of Congress (03 Aug 2017)
- HathiTrust (02 Aug 2017)
- PKP PLN (01 Aug 2017)
- Swiss National Library (27 Jul 2017)
- Scholars Portal (04 Jul 2017)
- National Science Library, Chinese Academy of Sciences (13 Feb 2017)
- e-Depot (24 Apr 2012)

The most up-to-date information may be available on the Keeper's website.

#### **Working Together**

Find out how publishers, research libraries and national libraries can support archiving initiatives to ensure the future of the digital scholarly record. Read more.

#### **Current Statistics**

- Serials with volumes reported as 'ingested and archived' by at least one Keeper: 35832
- Serials with volumes reported as 'ingested and archived' by three or more: 13469

Work on other serials (and volumes) is 'in progress'.

#### News and Events 🖪

- 21 Dec 2016: IARI A enderses Working Together statement
- O2 Dec 2016: Ivy Plus Libraries Collection
  group endorses Working Together statement
- 27 Sep 2016: Translations of Working Together to Ensure the Future of the Digital Scholarly Record
- 25 Aug 2016: International Endorsements for Working Together statement
- 11 Aug 2016: Ensuring the Future of the Digital Scholarly Record

How are we doing? : What do the data tell us?

#### Good News #4:

# Titles known as archived up by 60% over past 4 years as more archiving + more archives reporting into Registry!

#### Titles 'ingested & archived' by ...

	at least 1	3 or more
Dec 2013	22,196	8,618
Nov 2014	26,195	9,656
Dec 2015	29,663	10,710
Dec 2016	33,711	12,644

As reported into the Keepers Registry

August 2017 35,832 13,469

# 2 simple Key Performance Indicators

<u>'Ingest Ratio'</u>

= ingested by 1+ Keeper
 / total 'online

serials' of interest So 'global' estimate for 'Published Heritage' <u>Titles archived</u>, divided by all 'continuing resources' in ISSN Register

# <u>35,832</u> / 200,000 => <u>18%</u>

# <u>'KeepSafe Ratio'</u>

ingested by 3+Keepers
/ total 'online serials' of interest

<u>13,469</u> / 200,000 => <u>6.7%</u>



		Ingest	KeepSafe			
ISSN	Country ISSN	Ratio	Ratio	'At Risk'	Archived	Archived
Count	Assigned	%	%	Count	by 1+	by 3+
33,848	USA	32.9	7.8	22,725	11,123	2,624
16,624	UK	43.5	22.7	9,394	7,230	3,780
15,962	FRANCE	3.6	1.1	15,380	582	181
9,373	CANADA	6.9	0.4	8,727	646	41
8,167	GERMANY	24.5	10.1	6,170	1,997	822
8,054	BRAZIL	9.9	0.2	7,257	797	18
7,168	SPAIN	3.7	0.5	6,901	267	35
6,034	INDIA	6.4	2.1	5,649	385	129
5,828	AUSTRALIA	4.5	1.5	5 <i>,</i> 568	260	89
5,409	International	2.4	0.5	5,277	132	26
5,295	NETHERLANDS	68.2	45.7	1,682	3,613	2,418
4,380	ITALY	4.9	1.2	4,165	215	53
2,095	ARGENTINA	1.0	0.1	2,075	20	3
2,048	SWITZERLAND	20.0	4.1	1,639	409	84
330	TURKEY	4.2	0.3	316	14	1
283	IRELAND	16.3	4.6	237	46	13
268	BANGLADESH	1.1	0.0	265	3	0
237	PHILIPPINES	2.1	0.8	232	5	2
223	SINGAPORE	59.2	6.3	91	132	14
198	CYPRUS	0.0	0.0	198	0	0
168	COSTA RICA	3.0	0.0	163	5	0
1,822	INDONESIA	0.3	0.0	1,817	5	0
1,679	HUNGARY	4.4	0.7	1,605	74	11
1,327	IRAN	0.0	0.0	1,327	0	0
1,311	SLOVENIA	1.1	0.0	1,296	15	0
1,223	KOREA	0.0	0.0	1,223	0	0
1,187	CROATIA	2.0	0.0	1,163	24	0
1,109	EGYPT	60.5	12.9	438	671	143

Huge variation in KPI Ratios by Country of Publication Only those in **bold** are

> 10%

very low KeepSafe Ratios

## Variation is due to Big Publishers doing the right thing!

ISSN Count	* Re-order by Ingest Ratio	* Ingest Ratio %	KeepSafe Ratio %
187,445	Globally	18.0	6.7
5295	Elsevier Netherlands	68.2	45.7
1109	Hindawi Egypt	60.5	12.9
16624	T&F, CUP, OUP, etc UK	43.5	22.7
33848	Wiley etc USA	32.9	7.7
8167	Springer Germany	24.5	10.1
2048	Karger Switzerland	20.0	4.1
902	Austria	14.8	6.5
731	Belgium	10.0	0.5
8054	Brazil	9.9	0.2
2895	Poland	9.6	1.0
1041	Sweden	9.3	2.6
414	Bulgaria	8.4	0.2
663	South Africa	8.1	2.9
9373	Canada	6.9	0.4
760	Mexico	6.4	0.4
6034	India	6.4	2.1

BIG publishers acted early but incompletely STEM well archived

#### <u>Time for libraries to do the right thing!</u>

The "Long Tail"

Humanities and Applied/Practitioner literature found in long tail [especially non-English]

very many 'at risk' e-journals (esp. OA journals) from the "65% of publishers":



# Open Access content is in that Long Tail & 'at risk'

#### **ROAD** [Directory of Open Access scholarly Resources]

Archived by n Keepers

		total	At risk	1	2	3	4	5	6	7
ISSN is assigned	Journals	15408	75.4	13.5	4.06	3.2	1.8	0.6	1.4	0.03
to resources:	Monographic series	256	97.3	1.56	0.4	0.4	0.4			
a) Issued in parts	Conference proceedings	151	93.4	4.6	1.3	0.7			•	
, ,										
	Scholarly blogs	882	99.9		0.1					
	Academic repositories	268	99.6	0.4						
b) Change o' time										
	All		77.5	12.3	3.71	2.9	1.7	0.5	1.3	0.03
	'Scholarly OA titles' N=	16965	13152	2086	629	498	281	90	224	5
•										

 $\Rightarrow > \frac{3}{4} \text{ of OA resources at risk of loss}$  $\Rightarrow \text{Open Access} \neq \text{Continuing Access}$ 

http://road.issn.org/



## What is to be done?

... for our Scholarly Record, that scholarship produces ... for each nation's Published Heritage, that scholarship needs to ensure Open Access means Always Access Portico & CLOCKSS unlikely to archive this content  $\bullet$ not easily done within their business model (1) The role of the 'nationals' & Legal Deposit (2) The role of the 'research library co-ops' Or is it all about the Internet Archive?

# 1 National Libraries (inc. Legal Deposit)

(Digital Legal Deposit can be mandatory, voluntary or absent)

- Comprehensive for published heritage of each nation

   in principle
- All types of publisher: Scholarly, Trade, Personal, etc.
  - We know something about in the scope of acquisition for print
  - Recognises value of publications beyond scholarly record

\*\*\* But need to avoid temptation of the 'low-hanging fruit' of the large scholarly publishers: they are not at risk as already kept well by CLOCKSS & Portico

[with thanks to Ted Westervelt, Library of Congress]

#### CLOCKSS/Portico already do Big Publishers & so do Research Library Co-ops! 2015 data

			<b>CLOCKSS</b>	Α			
		Ingest	or	National	Research	KeepSafe	Archival
Country	ISSN	Ratio	Portico	Institution	Library	Ratio	status
	Count	%	%	%	Coops %	%	unknown
Netherlands Elsevier	5411	68	60	54	54	49	1729
Egypt Hindawi	1092	60	59	3	23	4	438
UK T&F, CUP, OUP, etc	14569	45	34	15	34	20	8066
USA Wiley etc	31757	34	17	5	28	7	20911
Germany Springer	7121	27	18	11	18	10	5228
Switzerland Karger	1688	16	12	4	9	4	1421
Sweden	1015	10	6	1	8	01	911
Poland	2693	9	8	3	1	1	2457
Canada	8655	8	2	0.2	6	0.2	7988
Russia Fed	2070	7	6	6	6	6	1929
India	5248	7	5	3	2	2	4899
Korea S	1071	6	5	4	5	4	1002
Japan	2187	6	4	3	6	4	2050
Italy	3576	6	3	1	4	1	3368
France	12118	5	2	1	4	1	11538
Australia	5078	5	3	1	5	1	4846

# Impact of Legal Deposit?

Hard to tell unless more national libraries
 become Keepers ...

National Science Library – Chinese Academy of Sciences





Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra



... and report what they have in safekeeping, recognsing the benefit of sharing knowledge openly

# 2 A Role for Research Library Cooperatives

Examples in the Keepers Registry:

- HathiTrust
- Scholars Portal (Ontario, Canada)
- Global LOCKSS Program / UKLOCKSS & Private LOCKSS Networks
- Cariniana Network/IBICT (Brazil)
- Public Knowledge Project/ PLN [OJS]

Scholarly communication is international, but need to devise strategy with a focus on the local/regional and national as well as the international

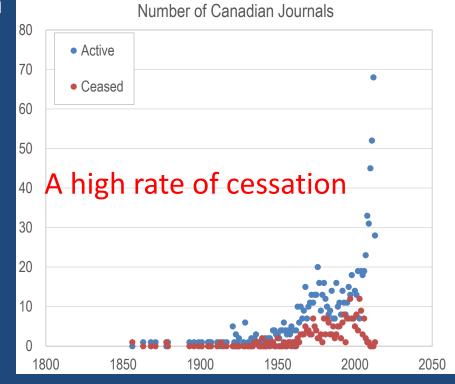
- Expect differences from nation to nation in publishing
- Is there a common pattern outside US/UK?

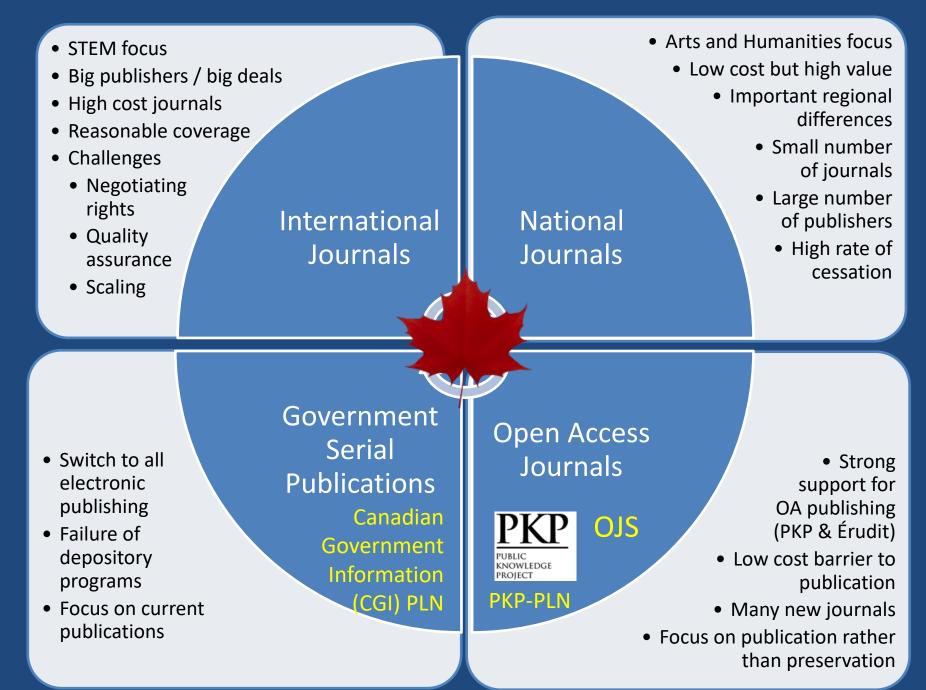
# **Diversity** & Fragility

Generalising from a study of Canada [with thanks to Alan Darnell] :

- A small number of commercial publishers
- Many small journals with only a few large journals
- Highly dependent on support from granting agencies
  - e.g SSHRC Journals Program

=> Importance of Scholarly Societies; University Presses; Research Councils





[with thanks to Alan Darnell, Scholars Portal & UofToronto]

#### Help to ensure Open Access means Assured Access

1 Think Globally – supporting global infrastructure

2 Act Locally - include 'continuing access' as part of OA strategy

3 Act Together in Regional & National Actions

#### Help to ensure Open Access means Assured Access

(1) Think Globally – supporting global infrastructure

- Information on OA Journals
  - Combined role of DOAJ & ROAD
    - DOAJ Seal of Approval; ISSN; deposit with a Keeper
- Direct archiving from journal platform
  - Exemplar role of PKP/OJS
    - used by over 8,600 journals world-wide
- Information on extent of archiving activity
  - Role of Keepers Registry

Look to engagement & support from international groups:

- a) IFLA : how to engage?
- b) International Alliance of Research Library Associations IARLA: ARL + CARL + LIBER + RLUK + AUL

#### Help to ensure Open Access means Assured Access

(1) Think Globally – supporting global infrastructure

2 Act Locally - include 'continuing access' as part of OA strategy

- Designate a staff member with this role
- Use another organisation as your 'safe deposit'

3) Act Together in Regional & National Actions

 Investigate deployment of Private LOCKSS Network as research library cooperative

#### Role of Institutional Repositories?

Main driver of Open Access (OA) agenda is availability [& compliance]. Emphasis is on the present and upon the ease of access.

Should there be a long-term preservation role for the articles deposited in Institutional Repositories?

- The ergonomics / economics of preservation of articles not as good as ingesting all that is issued by a journal
- The challenge of not knowing what content is \*not\* held

- 1. Special Role for Institutional Repositories?
- 2. Special Collections Role for Institutional Repositories?

### A Special Role for Institutional Repositories

#### Articles made Open Access by payment of Gold \$\$\$

- 1. Place an order with a publisher for Gold Open access [Purchase Order]
  - Finance Office likes PO in advance of Invoice
- 2. Don't pay the publisher until you have downloaded the article
  - from outside a university IP, maybe from home
- 3. Deposit the article in your Institutional Repository and in the Internet Archive and in a subject-specific repository
- 4. Tell the author that you have ensured that Open Access is Always Access ...

## Special Collections Role What is the archival value of the author's final copy?

The first occurrence of Einstein's famous equation, in his own writing - With interesting correction [allegedly] added by the author!

aut 1. Ruhe bet  $\frac{Mc^{23}}{1-\frac{v^2}{c^2}}$  $E = m c^3$ fin den buste Nach Aussendung

http://www.flickr.com/photos/mistermoss/4888908959/

# 4 Essential Steps for Open Access e-serials

- Assign an identifier at the 'point of issue' for a stream of digital content
- 2. Ensure that content is archived routinely

and, preferably, have others/ peers do that for you too

3. Say what you are doing (& how) and what you hold

4. Publish the terms of access for the archived content (now and when triggered as orphaned).

http://thekeepers.org @keepersregistry http://thekeepers.blogs.edina.ac.uk/ Peter.Burnhill@gmail.com