Looking up from the Weeds

Knowing what’s next for OA by learning from the past

Richard Jones
richard@cottagelabs.com
Founder, Cottage Labs
Who am I and what is this?

An OLD MAN of Open Access Software Development

Responsponsible for implementing the visions of the Great and the Good of Open Access

2001 - University of Edinburgh, Repo developer
2004 - University of Bergen, Repo developer
2006 - Imperial College London, Repo developer, CRIS integrations
2007 - Hewlett-Packard
2008 - Symplectic, CRIS Integrations
2011 - Cottage Labs Founder, Repos and OA Infrastructure
Observation (without proof)

Approximately once a year someone announces that Open Access:

- Is dead
- Has failed
- Isn’t worth it

This is a journey into time to see if this is true, or if there is something for us in the future.
THE BEFORE TIME
In the beginning there was light

1990

Gardner and Harnad

“Scholarly Skywriting and the Prepublication Continuum of Scientific Inquiry”
Researcher driven growth

- Los Alamos arXiv (now at Cornell)
- CERN Preprint Server (later CDSWare)
- OPUS

“Scholarly Skywriting”

The first subject repositories

Fedora

The Journals Crisis

Cottage Labs: make the most of your data
Researcher driven growth

This is the only time that researchers have been the driving force for Open Access

1990: “Scholarly Skywriting”
1991: The first subject repositories
1993: CERN Preprint Server (later CDSWare)
1997: Fedora
1998: OPUS
2000: The Journals Crisis
In reality, the journals crisis had been unfolding for years.

Libraries hoped Institutional Repositories would put pressure on the publishers.

They were, unfortunately, wrong.
Libraries get interested

Early CRIS systems

EPrints 2000

The first institutional repositories

OAI-PMH 2001

I join the University of Edinburgh

DSpace 2002

ETheses

BOAI

DOAJ 2003

EThoS at British Library

Berlin Declaration of Open Access

Cottage Labs: make the most of your data
THE AGE OF ENLIGHTENMENT
Getting serious about repositories

- DSpace Foundation
- SWORD
- OAI-ORE

2004
- SHERPA
- APCs

2007
- CRIS/Repo integrations

2008
- Hydra (later Samvera)

2011

2012
- The Great Shift to the Right

We form Cottage Labs

Cottage Labs: make the most of your data
Getting serious about repositories

Cottage Labs: make the most of your data

DSpace Foundation

2004
SHERPA
APCs

2007
CRIS/Repo integrations

2008
Hydra
(later Samvera)

2011

2012
The Great Shift to the Right

Publishers are adapting their business models to OA

We form Cottage Labs

Cottage Labs: make the most of your data
Getting serious about repositories

Found success with the same kind of expansive community building as DSpace

We form Cottage Labs

Became a role model for good community engagement

The Great Shift to the Right

Cottage Labs: make the most of your data
Getting serious about repositories

DSpace Foundation

SWORD

OAI-ORE

2004

2007

2008

2011

2012

SHERPA

Simple Fire and Forget deposit, still the most popular use-case today.

We form Cottage Labs

Hydra (later Samvera)

The Great Shift to the Right

Cottage Labs: make the most of your data
THE INFRASTRUCTURE EXPLOSION
Research funders get involved

- ResourceSync
- OA Button (later OA.Works)
- cOAlition S and Plan S
- Journal Comparison Service
- 2012
- Research Data
- We become DOAJ's technical partner
- Invenio 3
- 2015
- 2014
- 2013
- 2012
- 2018
- 2019
- 2021
- Journal Checker Tool

Cottage Labs: make the most of your data
ResourceSync

Research funders get involved

OA Button (later OA.Works)

2012

2013

2014

2021

We become DOAJ's technical partner

Journal Comparison Service

Research Data

Despite modern architecture, it has not been able to unseat OAI-PMH as the go-to harvesting protocol

cOAlition S and Plan S

2015

2018

2019

2021

Journal Checker Tool

Cottage Labs: make the most of your data
Research funders get involved

This needs a whole presentation of its own, there's a lot to say.

Historically overlooked by publishers, it's a fertile ground for repositories

Cottage Labs: make the most of your data
Research funders get involved

ResourceSync (later OA.Works)

cOAlition S

2012

Research Data

We become DOAJ's technical partner

Both from Plan S, they pave the way to the new publishing paradigms

2013

2014

2021

2018

2019

Journal Comparison Service

Journal Checker Tool
INTROSPECTION
## The Publisher Trade-off

<table>
<thead>
<tr>
<th>Before</th>
<th>Now</th>
</tr>
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<tbody>
<tr>
<td>Virtually zero free-to-read articles</td>
<td>Lots of OA options</td>
</tr>
<tr>
<td>Cost for access is on the reader</td>
<td>Cost for access is primarily on the writer</td>
</tr>
<tr>
<td>What's this self-archiving thing?</td>
<td>Self-archiving is a commonly available option for authors</td>
</tr>
<tr>
<td>The publishing sector extracts a lot of money from institutions</td>
<td>The publishing sector extracts a lot of money from institutions</td>
</tr>
<tr>
<td>Theoretical publishing equity</td>
<td>Reduced publishing equity</td>
</tr>
<tr>
<td>Poor readership equity</td>
<td>Good readership equity</td>
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We traded publishing equity for readership equity.
What I learned

1. We can’t cut the publishers out
2. Researchers won’t drive OA
3. Good community and governance is critical
4. We need big infrastructure and small experiments
5. Simple is better, and for standards especially
6. Whoever has the money will have the most say
Is Open Access Dead?

Hopefully it’s obvious that Open Access is not an “all or nothing” thing.
AHEAD
what?
Open Peer Review and Overlay Journals (PRC)

needs?
Academic buy-in
Infrastructure and standards
Repositories

has?
The repo community
COAR Notify
Services like Peer Community In and Episciences

challenges?
Will be no doubt be opposed by publishers
Will require academics to accept these journals
<table>
<thead>
<tr>
<th><strong>what?</strong></th>
<th><strong>needs?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Diamond Open Access</td>
<td>Funder and Institution buy-in Service infrastructure to scale</td>
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<table>
<thead>
<tr>
<th><strong>has?</strong></th>
<th><strong>challenges?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing base of support Representation in DOAJ Funder interest</td>
<td>Unlikely to overturn publisher business models Publishers may co-opt</td>
</tr>
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what?
More and better data repositories

needs?
Better software support
More understanding of user needs

has?
Existing repository software
Established institutional practice

challenges?
Only technical ones, a very good opportunity!
Content reusability

**what?**

**needs?**

A change of mindset - repositories cannot be the end state for the data, must be an enabler instead

**has?**

Some prior art in Machine Learning and AI content reuse

**challenges?**

Existing software may be a barrier to innovation
Did I not mention your thing?

I’m sorry, there’s so much, and I only had 15 - 20 minutes. I focused on those that I was involved in directly, or which impacted on my day-to-day work.

There’s lots more out there, and the thing that’s missing is just as important as the others.
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