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# Tales from the Engine Room

What's ahead for Open Access and  
what's behind us

Richard Jones

[richard@cottagelabs.com](mailto:richard@cottagelabs.com)

Steve Eardley

[steve@cottagelabs.com](mailto:steve@cottagelabs.com)

# Who are we and what is this?

A team of engineers responsible for implementing the visions of the Great and the Good of Open Access

A presentation; slides, spoken words, insights from experience

# 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

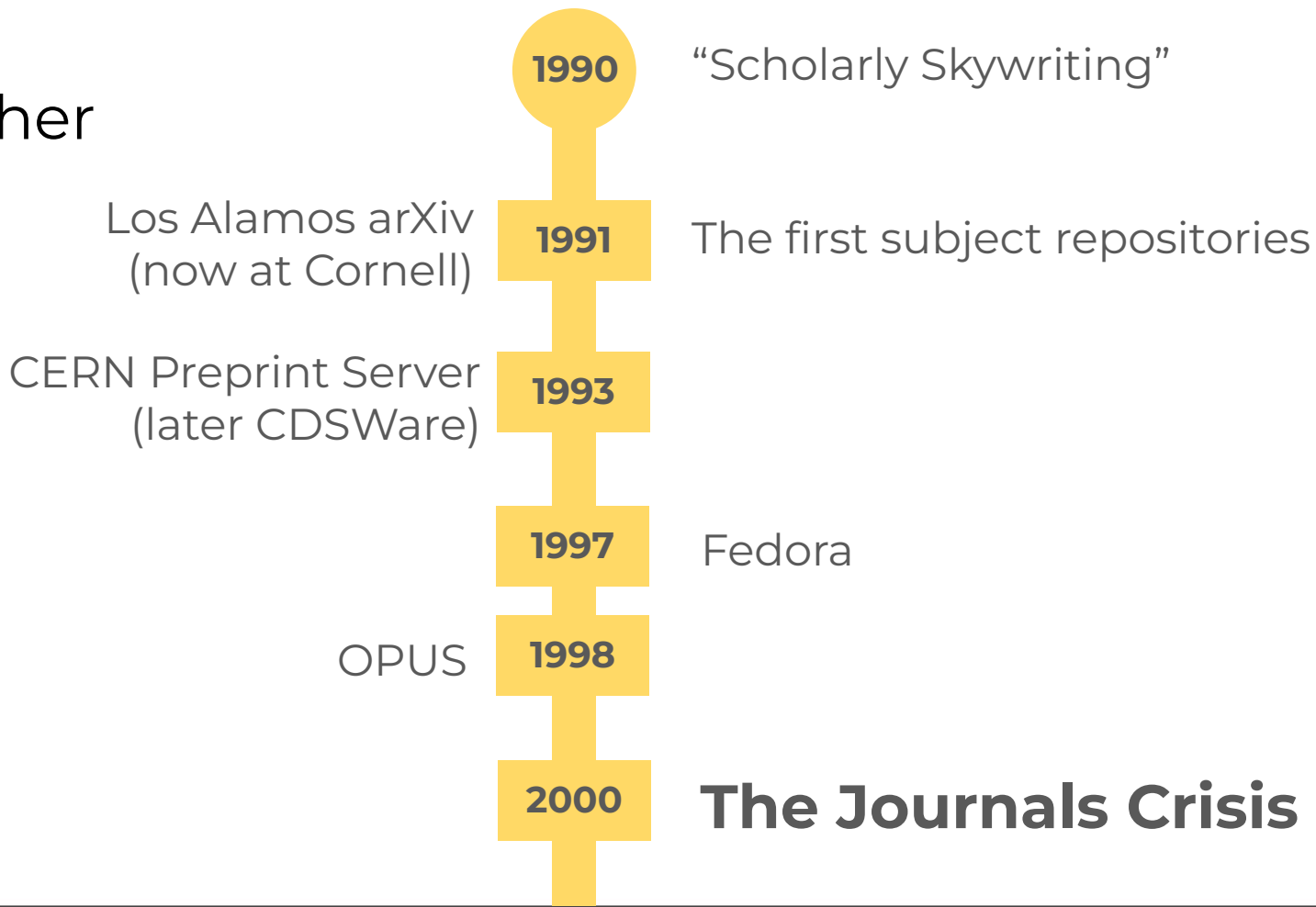


**1990**

Gardner and Harnad

*“Scholarly Skywriting  
and the Prepublication  
Continuum of Scientific  
Inquiry”*

# Researcher driven growth



Researcher  
driven  
growth

CERN  
(1991)

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

1990

“Scholarly Skywriting”

1991

The first subject repositories

1993

1997

Fedora

OPUS

1998

2000

**The Journals Crisis**

Researcher  
driven  
growth

Los Alamos arXiv

1990

“Scholarly Skywriting”

1991

The first subject repositories

1993

In reality, the journals crisis had  
been unfolding for years.

Libraries hoped Institutional  
Repositories would put pressure  
on the publishers.

They were, unfortunately, wrong.

1997

Fedora

2000

**The Journals Crisis**



Libraries  
get  
interested

EPrints

2000

The first institutional  
repositories

OAI-PMH

2001



Richard joins  
University of  
Edinburgh

Early CRIS  
systems

DSpace

2002

ETheses

BOAI

Directory of Open Access Journals

2003

EThoS at British  
Library

## Berlin Declaration of Open Access

# THE AGE OF ENLIGHTENMENT

Getting serious about repositories

DSpace Foundation

2004

SHERPA

APCs

CRIS Systems Getting Popular

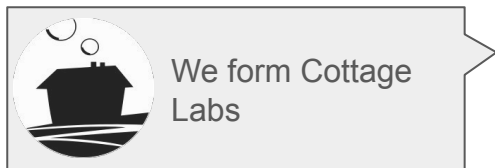
SWORD

2007

OAI-ORE

2008

CRIS/Repo integrations



2011

Hydra (later Samvera)

2012

**The Great Shift to the Right**

Getting serious

DSpace Foundation

2004

SHERPA

APCs

CRIS Systems Getting Popular

Publishers are adapting their business models to OA

2007

2008

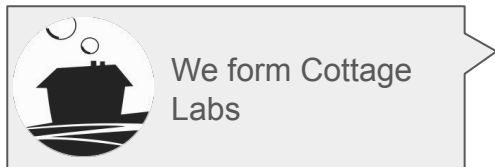
CRIS/Repo integrations

2011

Hydra (later Samvera)

2012

**The Great Shift to the Right**



Getting serious about repositories

DSpace Foundation

2004

SHERPA

Became a role model for good community engagement

SWORD

2007

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

2008

CRIS/Repo integrations

2011

Hydra (later Samvera)



2012

**The Great Shift to the Right**

# Getting serious about repositories

DSpace Foundation

2004

SHERPA

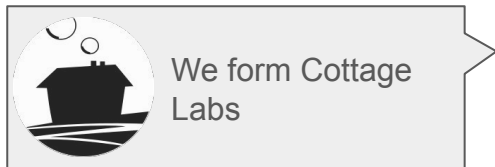
SWORD

2007

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

OAI-ORE

2008



2011

Hydra  
(later Samvera)

2012

## The Great Shift to the Right

**THE  
INFRASTRUCTURE  
EXPLOSION**

Research funders get involved

ResourceSync

OA Button  
(later OA.Works)

Invenio 3

cOAlition S and Plan S

Journal Comparison Service

2012

2013

2014

2015

2018

2019

2021

Research Data

 **DOAJ**

We become DOAJ's technical partner

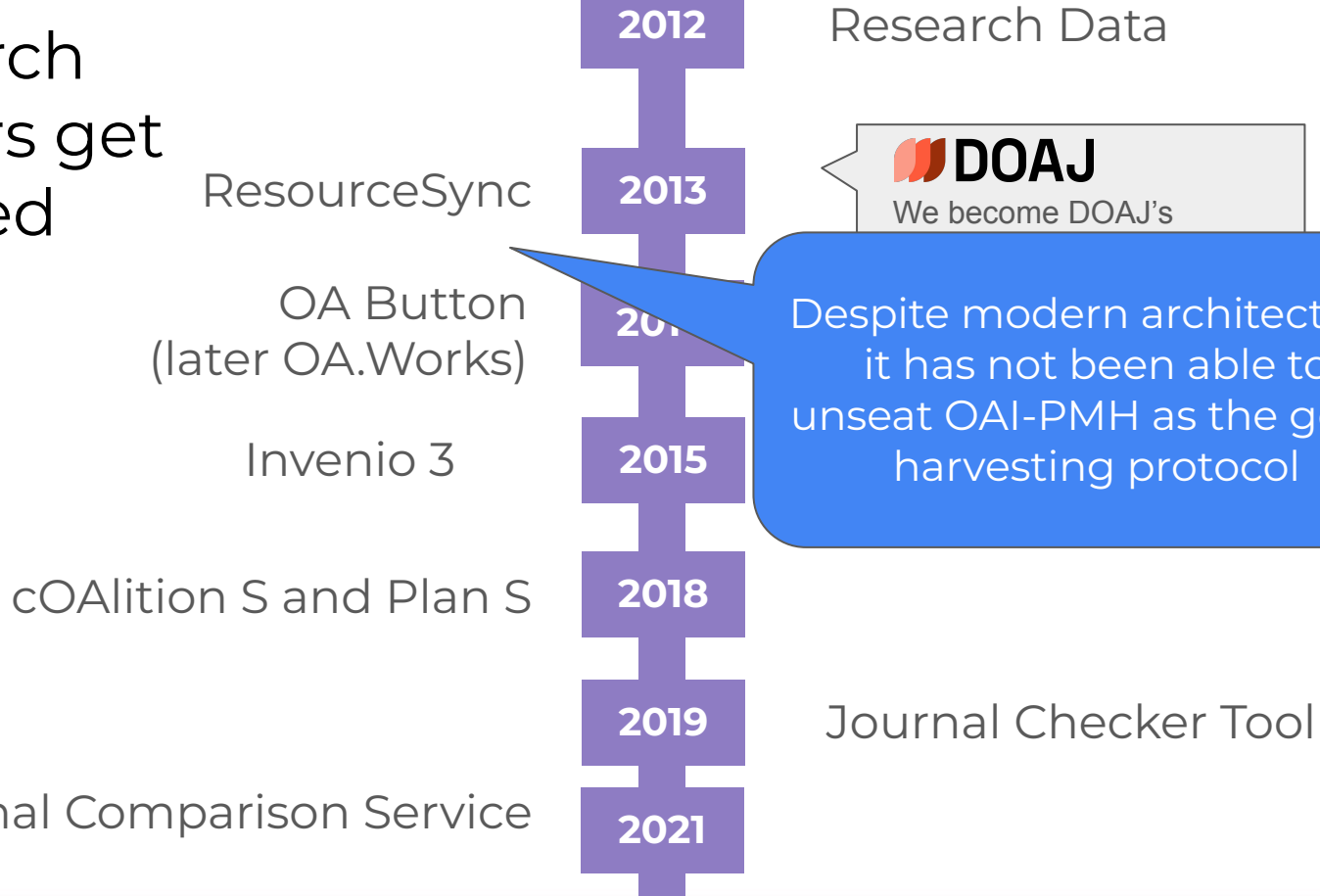


Steve joins Cottage Labs

Journal Checker Tool



Research funders get involved



Research funders get involved

ResourceS

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

Journal Comparison Service



Research Data



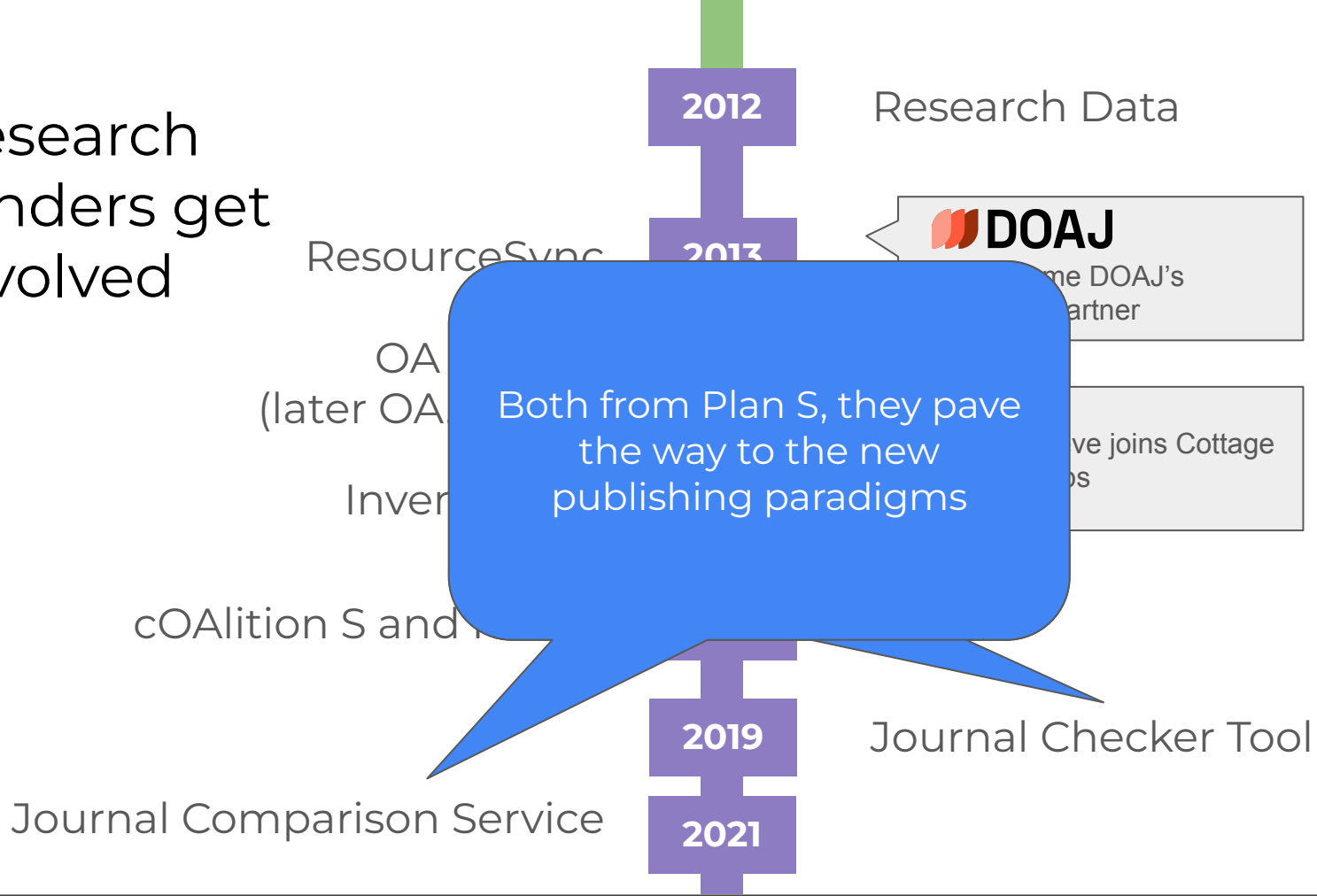
We become DOAJ's technical partner



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Journal Checker Tool

Research funders get involved



**INTROSPECTION**

# The Publisher Trade-off

Before		Now
Virtually zero free-to-read articles	➔	Lots of OA options
Cost for access is on the reader	➔	Cost for access is primarily on the writer
What's this self-archiving thing?	➔	Self-archiving is a commonly available option for authors
The publishing sector extracts a lot of money from institutions	➔	The publishing sector extracts a lot of money from institutions
Theoretical publishing equity	➔	Reduced publishing equity
Poor readership equity	➔	Good readership equity

We traded publishing equity for readership equity

# What we 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  
Bold OA Publishers

## **has?**

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

## **challenges?**

Will be opposed by publishers  
(see eLife and WoS)  
Will require academics to accept  
these journals

**what?**

Diamond Open  
Access

**needs?**

Funder and Institution buy-in  
Service infrastructure to scale

**has?**

Existing base of support  
Representation in DOAJ  
Funder interest

**challenges?**

Unlikely to overturn publisher  
business models  
Publishers may co-opt

## **what?**

More and  
better data  
repositories

## **needs?**

Better software support  
More understanding of user  
needs

## **has?**

Existing repository software  
Established institutional practice

## **challenges?**

Mostly technical ones, a very  
good opportunity!

**what?**

Content  
reusability

**needs?**

A change of mindset - journals and 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 we not mention your thing?

We're sorry, there's so much, and we only had 20 minutes. We focused on those that we were 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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# The End



Richard Jones

[richard@cottagelabs.com](mailto:richard@cottagelabs.com)

Steve Eardley

[steve@cottagelabs.com](mailto:steve@cottagelabs.com)