



# Data Management Hub

Sensitive data secure. Public data open.

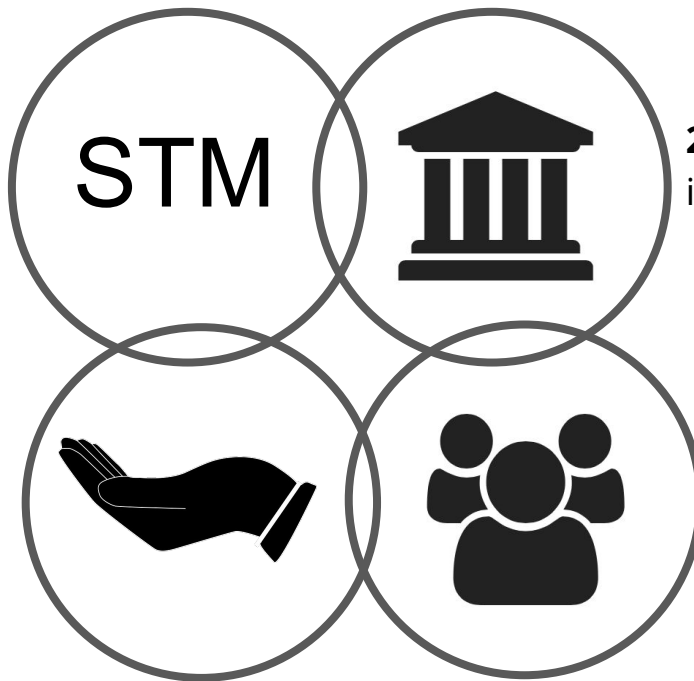


# Market

**\$25.2 billion** STM market  
in 2013

(**650** publishers producing  
around **11,550** journals in  
English ([link](#)))

Total system costs of conducting and  
communicating the research published in  
journals **£175 billion**



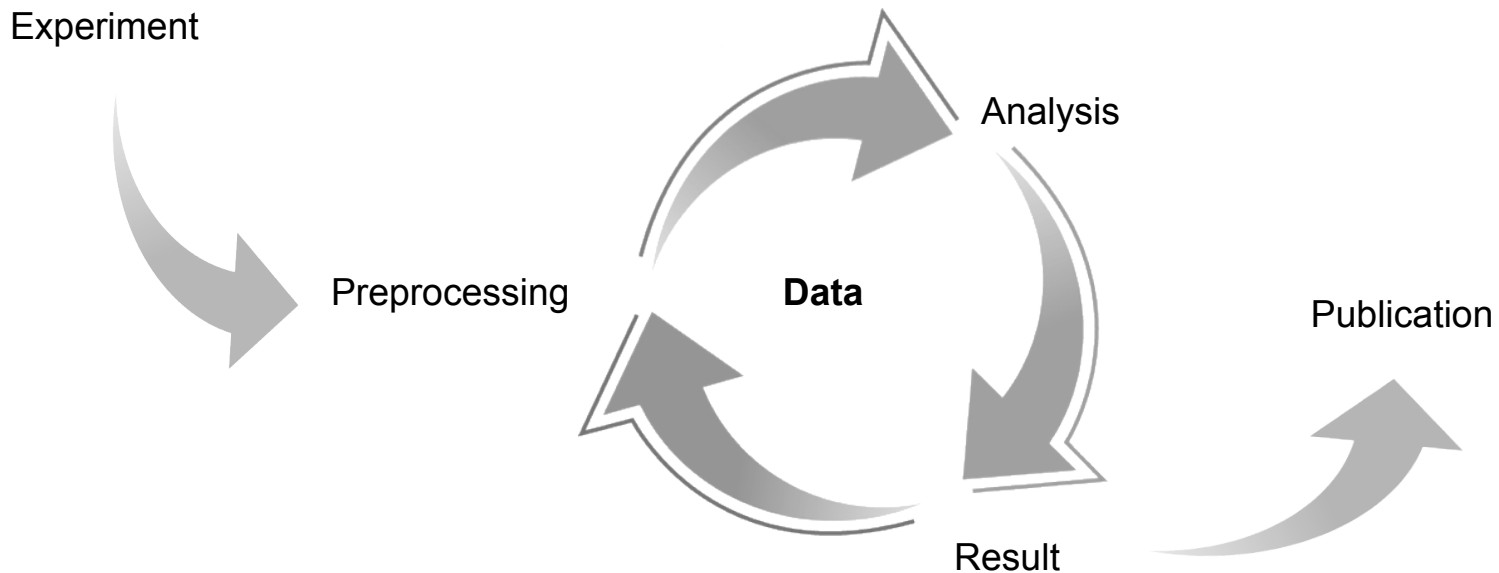
**24.000+** third level institutions  
in the world

**15.2 million** publishing  
scientists

**4.16 million** unique  
authors in [2013](#)



# Research Data Workflow





## The 10 largest publishers, by number of journals

<b><i>Publisher</i></b>	<b><i>Number of journals</i></b>	<b><i>Cumulative % of all journals</i></b>
Springer (exc. NPG)	2987	10.6%
Elsevier	2500	19.5%
Wiley	2388	28.0%
Taylor & Francis	2105	35.5%
SAGE	750	38.1%
Wolters Kluwer (inc. Medknow)	672	40.5%
Hindawi	438	42.1%
CUP	350	43.3%
OUP	362	44.6%
Emerald	290	45.6%

[http://www.stm-assoc.org/2015\\_02\\_20\\_STM\\_Report\\_2015.pdf](http://www.stm-assoc.org/2015_02_20_STM_Report_2015.pdf)



# Institutional Repositories Map



Source: <http://maps.repository66.org>

damahub.org



**"3 years** after finishing the project **80%** of all researchers can **not present the data** anymore."

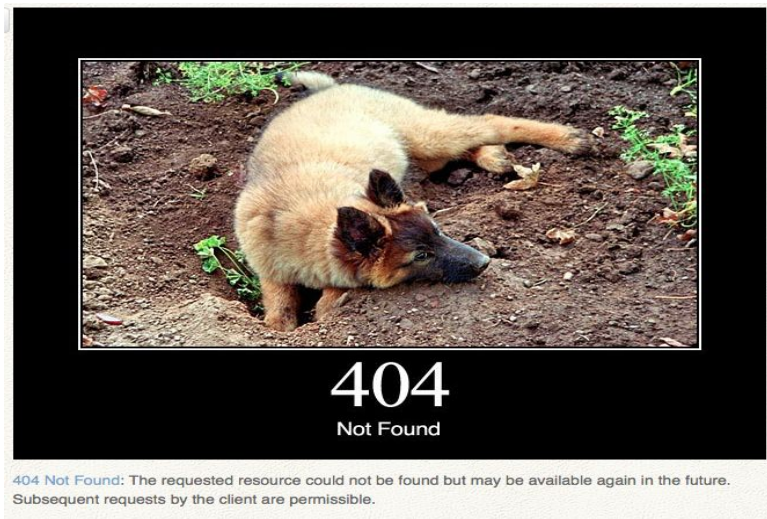
Prof. Dr. Mark Ferguson

Science Foundation Ireland

\* we believe that is probably a slight understatement.



# Link / Reference Rot



- 70% of the URLs within Harvard Law Review (HLR), the Harvard Journal of Law and Technology (JOLT) and the Harvard Human Rights Journal (HRJ) suffer **link rot**
- 50% of the URLs within U.S. Supreme Court opinions suffer **reference rot**

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2329161](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2329161)







# Data Management Hub

## Innovative Technologies:



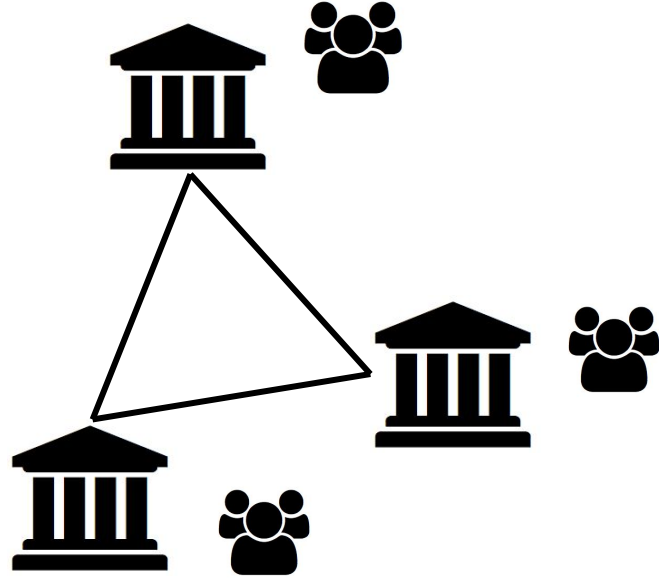
**HYPERLEDGER**

+



**IPFS**

- ✓ LOCKSS
- ✓ ORCID
- ✓ Time Stamps
- ✓ Search
- ✓ Data Authorship Attribution

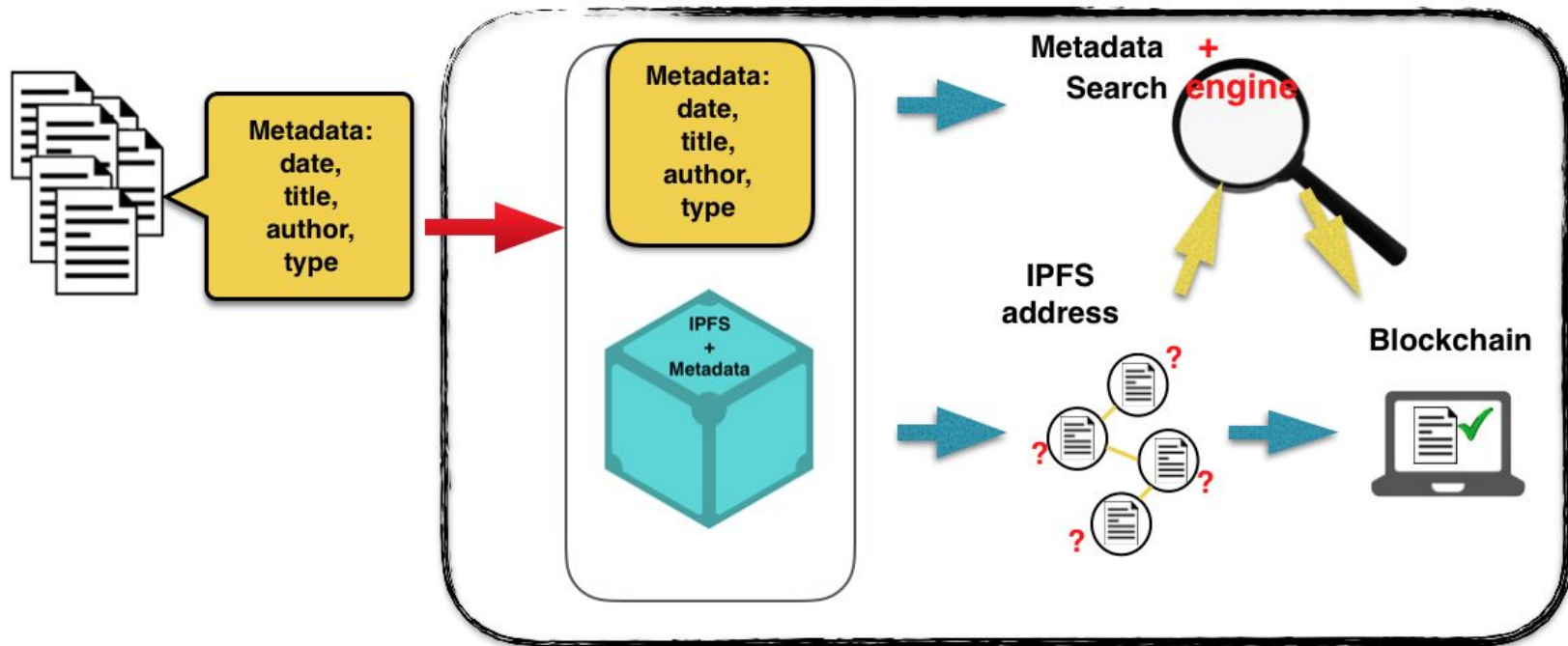






# Data Management Hub

## System solution





Hyperledger Composer Playground interface showing the 'damahub' application.

**Navigation:** Define | Test | admin

**Left Sidebar:** hifabric damahub, PARTICIPANTS, Editor, ASSETS, Document, TRANSACTIONS, All Transactions, Submit Transaction

**Table:**

ID	Time	Participant ID	Transaction Type	
e8fe9b6a1a97f7153d0df0522ac8183552edb5a44407091108...	13:34:07	none	org.damahub.signature	<a href="#">view record</a>
6b0ff3f1bb133788b043aeb988740ef9e229e54d9e4c15e146...	13:32:47	none	org.damahub.signature	<a href="#">view record</a>
2bed2f5860e9bb969b93551b9dc5633ef4e1118ac49caa8a5c...	13:30:43	none	org.hyperledger.composer.system.Add...	<a href="#">view record</a>
927531db4dc55d4050c1771a6ca0d31f8e05a93fdb75bc32d3...	13:30:07	none	org.hyperledger.composer.system.Add...	<a href="#">view record</a>
82f1e7d49b126bac60a25359b2f2b51b2a1d681d5b471f8964...	12:49:33	none	org.damahub.signature	<a href="#">view record</a>

**Footer:** Legal | GitHub | Playground v0.13.1 | Tutorial | Docs | Community | Show all



Hyperledger Composer v0.13.1

File Edit View History Tools People Help

localhost:8080/test#

Apps ENGLISH PAGE Luca Debiassi Home Amazon Web Services Fedora Project Red Hat Free Content Bookmarks Guidewire Perf The AI Revolution Swagger Editor Installing a developer tool Other bookmarks

hlfabric damahub Define Test admin

PARTICIPANTS

Editor

ASSETS

Document

TRANSACTIONS

All Transactions

Submit Transaction

Historian

ID

Historian Record

Transaction Events (0)

```
1 {
2   "$class": "org.damahub.signature",
3   "document": "resource:org.damahub.Document#ipfsId:8233",
4   "author": "resource:org.damahub.Editor#orcId:1289",
5   "transactionId":
6     "e8fe9b6a1a97f7153d0df0522ac8183552edb5a44407091108d0a718344bca92",
7   "timestamp": "2017-10-01T12:34:07.192Z"
8 }
```

Transaction Type

org.damahub.signature	<a href="#">view record</a>
org.damahub.signature	<a href="#">view record</a>
org.hyperledger.composer.system.Add...	<a href="#">view record</a>
org.hyperledger.composer.system.Add...	<a href="#">view record</a>
org.damahub.signature	<a href="#">view record</a>

Legal GitHub

Playground v0.13.1 Tutorial Docs Community

damahub.bna

Show all

damahub.org



# Data Management Hub Advantages

## Researcher



Fit-in-workflow  
Data  
Management

## Funding Organisations



Where and how  
money work?

## Publishers



Data and Articles  
combined

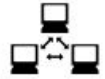
## Libraries



Data Archive



# Data Management Hub



Distributed, neutral



Timestamps for  
Authenticity



Easy Sync

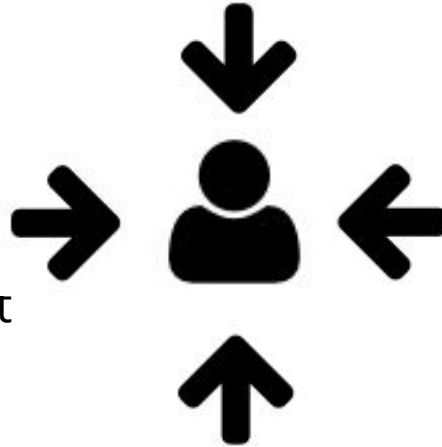


Version-Management



Private Data

**Data  
Authorship  
Attribution**



Peer-Review,  
Comments



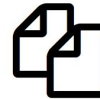
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Open Source



No Vendor-Lockin



**Lots Of Copies Keep  
Stuff Safe**



# The Team



Denis Parfenov, Founder [keybase.io/prfnv](https://keybase.io/prfnv)



Luca Debiasi, Lead Engineer [linkedin.com/in/luca-debiasi-79338012/](https://linkedin.com/in/luca-debiasi-79338012/)

Advisors:



OPEN KNOWLEDGE

[damahub.org](https://damahub.org)