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# Three reasons why we should move scholarly publishing to peer-to-peer networks

Lambert Heller Berlin, 12. March 2018 Barcamp Open Science



### **Everyday life at the library...**



### Elsevier stopped me doing my research

96 Replies

(...)

Full disclosure, I downloaded approximately 30GB of data from Sciencedirect in approximately 10 days. This boils down to a server load of 35KB/s, 0.0021GB/min, 0.125GB/h, 3GB/day.

Approximately two weeks after I started downloading psychology research papers, Elsevier notified my university that this was a violation of the access contract, that this could be considered stealing of content, and that they wanted it to stop. My librarian explicitly instructed me to stop downloading (which I did immediately), otherwise Elsevier would cut all access to Sciencedirect for my university.

http://onsnetwork.org/chartgerink/2015/11/16/elsevier-stopped-me-doing-my-research/

### From today's discourse on Openess





### Elsevier's Latest Brilliant Idea: Adding Geoblocking To Open Access

from the how-about-no? dept

Failures by Glyn Moody Wed, Oct 4th 2017 7:34pm

> Filed Under: academic

We've just written about a troubling move by Elsevier to create its own, watered-down version of Wikipedia in the field of science. If you are wondering what other plans it has for the academic world, here's a post from Elsevier's Vice President, Policy and Communications, Gemma Hersh, that offers some clues. She's "responsible for developing and refreshing policies in areas related to open access, open data, text mining and others," and in "Working towards a transition to open access", Hersh meditates upon the two main kinds of open access, "gold" and "green". She observes:

### A common pattern in both examples:



It's not only about Elsevier – it's about putting our trust in platforms.

Elsevier (and others) just exploit that trust.

### The Internet doesn't have to be like that



Date: Mon, 2 Jul 2001 16:30:26 -0700 (PDT)

To: decentralization@yahoogroups.com

Subject: BitTorrent - a new P2P app

Message-ID: <Pine.LNX.4.21.0107021628400.12015-100000@...>

MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

From: Bram Cohen <BRAM@...>

My new app, BitTorrent, is now in working order, check it out here -

http://bitconjurer.org/BitTorrent/

-Bram Cohen

https://groups.yahoo.com/neo/groups/decentralization/conversations/topics/3160

### The Decentralized Web Movement™





https://github.com/datproject/dat/commit/464679267049899eafa345125a0f2212f91be456?diff=unified

### We have a "trusted platforms" problem in science



To get hold of scholarly objects today, we have to go through a number of platforms, API (non)standards, "open" policies, business models etc.

With each of these levels, the problems multiply.

### Proliferation of "decentralized" – it's already happening



### The GHTorrent project

Welcome to the GHTorrent project, an effort to create a scalable, queriable, offline mirror of data offered through the Github REST API.

Follow @ghtorrent on Twitter for project updates and exciting research done with GHTorrent.

#### It is used for critical infrastructure





### Downloading Debian CD images with BitTorrent

<u>BitTorrent</u> is a peer to peer download system optimised for large numbers of downloaders. It puts minimal load on our servers because BitTorrent clients upload pieces of files to others while downloading, thus spreading the load across the network and making blazing fast downloads possible.

Debian on CD FAQ Network Install Buy CDs or DVDs Download

# Why we should move scholarly publishing to peer-to-peer networks? – Reason 1



In order to get their research done, researchers should be able to get hold of lots of data without additional effort.

It's up to the research infrastructure.

"Pragmatic school", "infrastructure school" (cf. <a href="https://doi.org/ck99">https://doi.org/ck99</a>)

# Why we should move scholarly publishing to peer-to-peer networks? – Reason 2



Allow and enable everybody to add to research data availability.

We owe it to the scholarly work incorporated in that data.

"Democratic school" (cf. <a href="https://doi.org/ck99">https://doi.org/ck99</a>)

### Why we should move scholarly publishing to peer-to-peer networks? – Reason 3



Replacing privileged access with permissionless innovation levels the playing field for business model innovation.

"Economic school"

### Really? Enable, like, everybody? – Quick reality check



### Y Hacker News new | comments | show | ask | jobs | submit

▲ justinclift on Feb 13, 2016 | parent | favorite | on: Sci-Hub: Removing barriers in the way of science

Wonder what the size of the data set is so far?

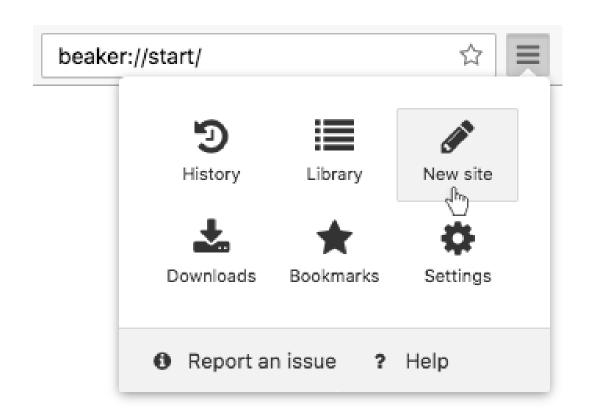
Likely TB's?

▲ vortico on Feb 13, 2016 [-]

The total size of the torrents are around 38-40 TB.

### But it's about more than "file sharing"

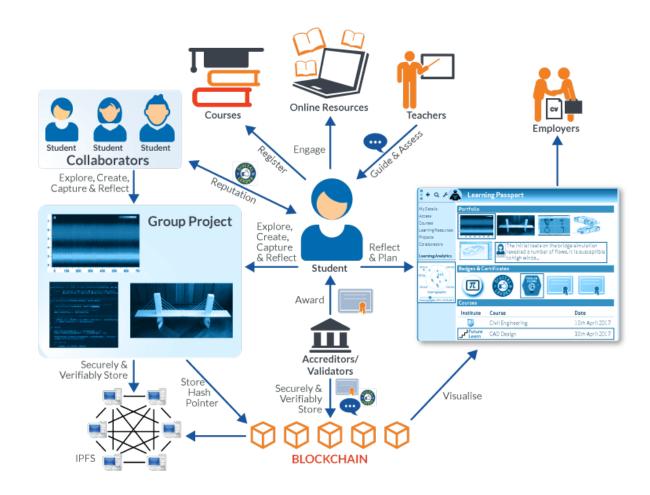




https://beakerbrowser.com/

### Completely decentralized educational certificates: They are here





http://blockchain.open.ac.uk/

#### **Educational certificates?**

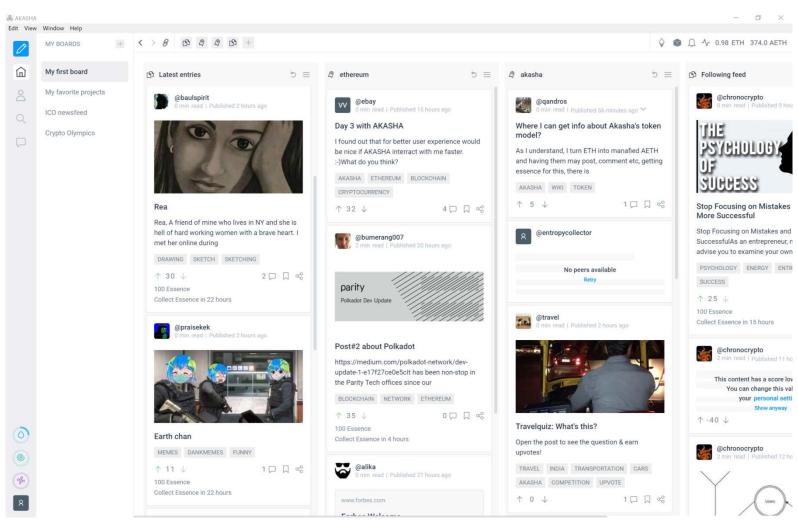


Peer review as well as tenure / hiring / funding committee decisions ...are basically the same than educational certificates.

Think of an "ownerless", decentralized database holding the scholarly metadata trail, which everybody can read and add to.

### In beta: Completely decentralized social networks





https://blog.akasha.world/2018/02/10/akasha-beta-emergence/

### Call to action – what to within the next hour



Install Beaker Browser, ZeroNet and Akasha, submit bug reports, and – if that's your thing – engage with them on Twitter

### Call to action – what to within this day



Let's have a one or more sessions on P2P at this barcamp

### Call to action – what to within this year



If you run a "trusted platform":

Move from campaigning for users' trust to thinking and acting on how to make "trusted platforms" history

### **Further information**



Article covering some ideas from these slides, with further links:

https://bit.ly/blockchain-commons

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### **MORE INFORMATION** tib.eu

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