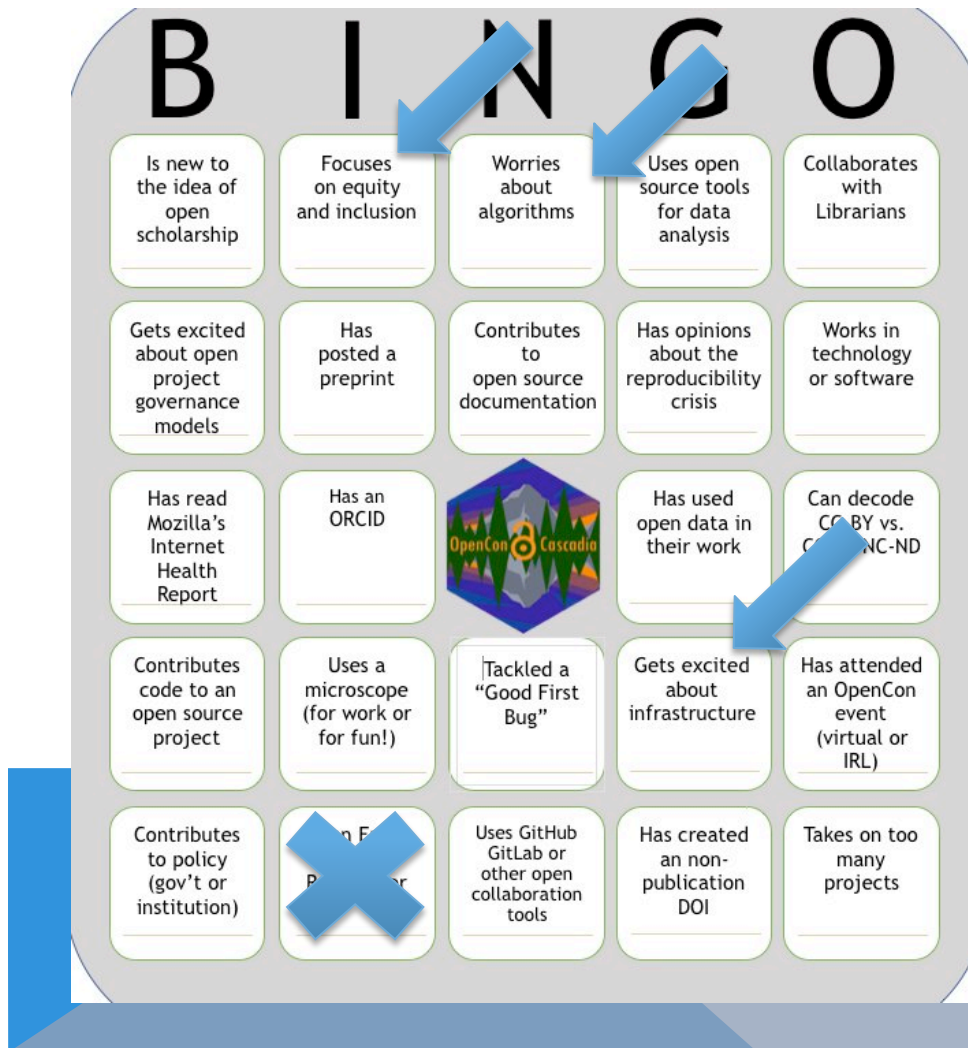


# Whose Open Science? And why Infrastructure Matters



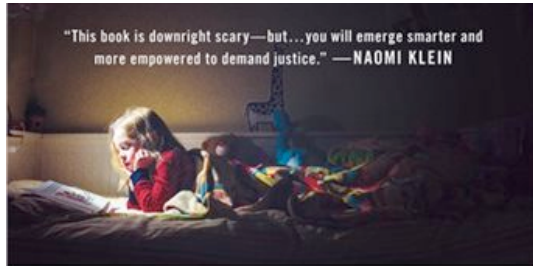
OpenCon Cascadia  
Feb 1-2, 2019

Leslie Chan  
University of Toronto Scarborough  
@lesliekwchan



Anyone works for Elsevier?





**AUTOMATING  
INEQUALITY**  
HOW HIGH-TECH TOOLS PROFILE  
POLICE, AND PUNISH THE POOR



why are black women so

# Algorithms are not neutral

why are black women so lazy  
why are black women so annoying  
why are black women so confident  
why are black women so sassy  
why are black women so insecure

**ALGORITHMS  
OF  
OPPRESSION**

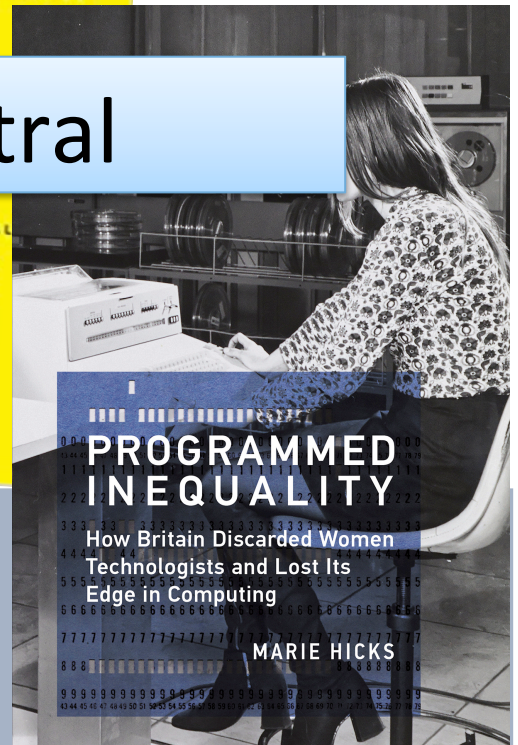
HOW SEARCH ENGINES  
REINFORCE RACISM

SAFIYA UMOJA NOBLE

HOW BIG DATA INCREASES INEQUALITY  
AND THREATENS DEMOCRACY

**CATHY O'NEIL**

"This is a manual for the 21st-century citizen,  
and it succeeds where other big data accounts  
have failed—it is accessible, refreshingly  
critical, and feels relevant and urgent."  
—FINANCIAL TIMES



# THE AGE OF SURVEILLANCE CAPITALISM

THE FIGHT FOR A  
HUMAN FUTURE  
AT THE NEW  
FRONTIER OF POWER

SHOSHANA  
ZUBOFF

# THE PLATFORM SOCIETY



Extreme Accumulation,  
Extraction, Expulsion as  
means of profit  
maximization

**Normalizing Precarity**



**Jump to conclusion...**



# WHAT WE CAN DO

Demand disclosure

Public policy on platform monopoly

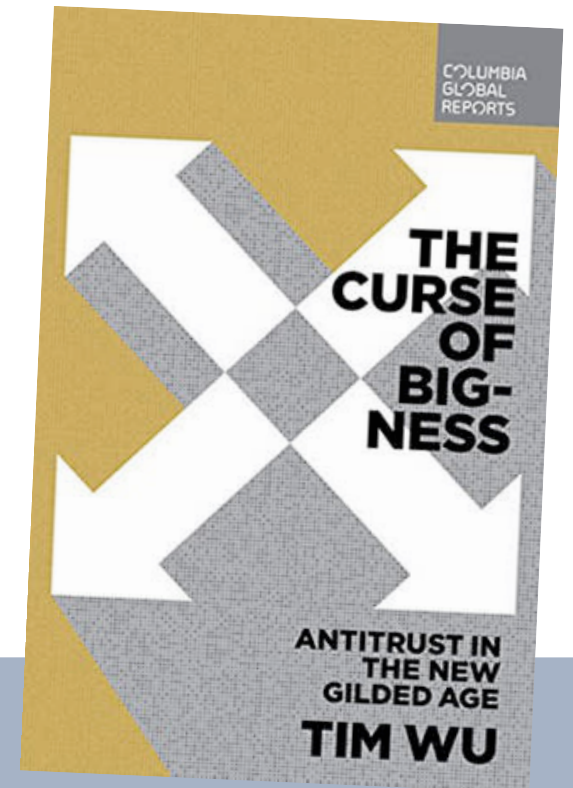
Build community governed infrastructure

**Community Benefit Sharing Agreements**

Reclaim the Open Narrative

Value Pluralism

Think De-growth for Sustainability



CLAIMS...

Openness, when decontextualized from its historical and political roots, could become as exploitative and oppressive as the legacy system it seeks to display



“Five years ago I said, ‘If you want to liberate society, all you need is the Internet.’ Today I believe if we want to liberate society, we first need to liberate the Internet.”

Wael Ghonim (2015)



Wael Ghonim:

## Let's design social media that drives real change

TEDGlobal>Geneva · 13:34 · Filmed Dec 2015

[https://www.ted.com/talks/wael\\_ghonim\\_let\\_s\\_design\\_social\\_media\\_that\\_drives\\_real\\_change?language=en](https://www.ted.com/talks/wael_ghonim_let_s_design_social_media_that_drives_real_change?language=en)



## CLAIMS...

If we want open knowledge, open scholarship and real equitable participation in knowledge production, we have to liberate the current infrastructure

Let's co-design and build community based socially grounded infrastructure with alignment with public values



## CLAIMS...

The platformitization of knowledge infrastructure is antithetical to the epistemic and intellectual diversity that is crucial to the sustainability of our planet

It drives needless growth and amplify inequality



✓ PEER-REVIEWED

# Authorial and institutional stratification in open access publishing: the case of global health research

Research article

Science and Medical Education

Science Policy

Kyle Siler<sup>1</sup>, Stefanie Haustein<sup>2,3</sup>, Elise Smith<sup>4</sup>, Vincent Larivière<sup>4</sup>, Juan Pablo Alperin<sup>5</sup>



Published February 19, 2018 PubMed [29479492](#)

**Researchers at well-resourced, highly ranked universities are more likely to publish in open-access journals**

**APCs ‘create new inequalities’ in publishing**

**“New axes of stratification are emerging in academic publishing, adding to the already complex tapestry of inequality in science,” the paper concludes.**

# Prestige drives epistemic inequality in the diffusion of scientific ideas

Allison C. Morgan  , Dimitrios J. Economou , Samuel F. Way  and Aaron Clauset 

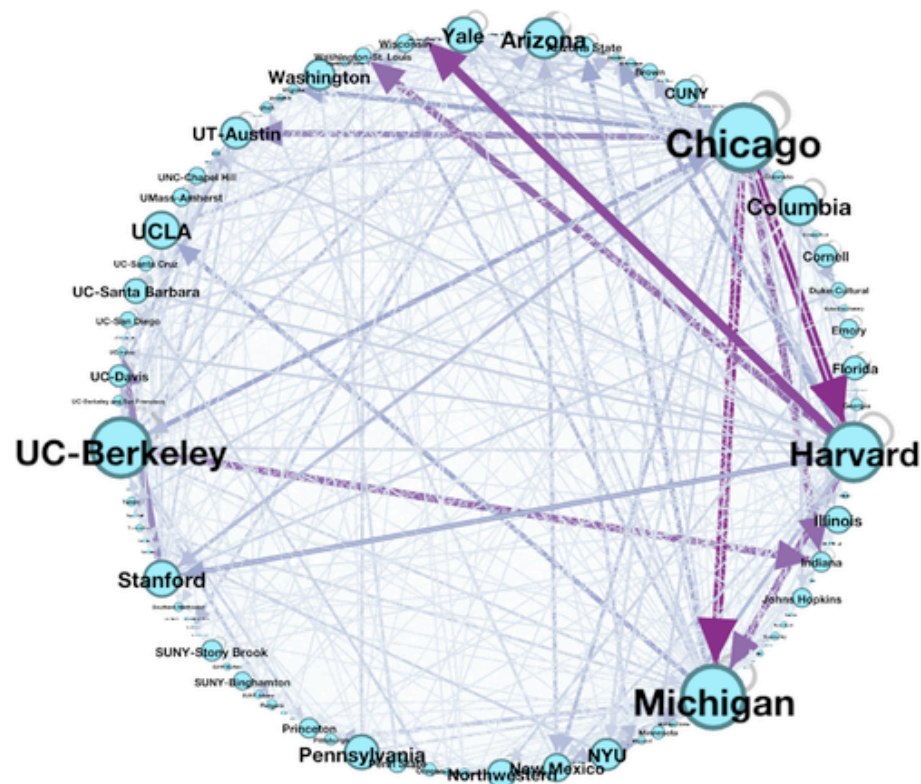
*EPJ Data Science* 2018 7:40

<https://doi.org/10.1140/epjds/s13688-018-0166-4> | © The Author(s) 2018

**Received:** 30 May 2018 | **Accepted:** 7 October 2018 | **Published:** 19 October 2018

“We find that research from prestigious institutions spreads more quickly and completely than work of similar quality originating from less prestigious institutions. Our analyses establish the theoretical trade-offs between university prestige and the quality of ideas necessary for efficient circulation”





## American Anthropologist

RESEARCH ARTICLES | [Free Access](#)

### The Social Network of US Academic Anthropology and Its Inequalities

Nicholas C. Kawa ✉, José A. Clavijo Michelangeli ✉, Jessica L. Clark ✉, Daniel Ginsberg ✉, Christopher McCarty ✉

First published: 26 December 2018 | <https://doi.org/10.1111/aman.13158>

## CLAIMS...

We have been too focused on the visible problem of access and legal rights, and not been sufficiently reflective of the hidden and invisible power structure and barriers (walls!!) embedded in the “global” knowledge system



# SYSTEM OF POWER IN KNOWLEDGE PRODUCTION

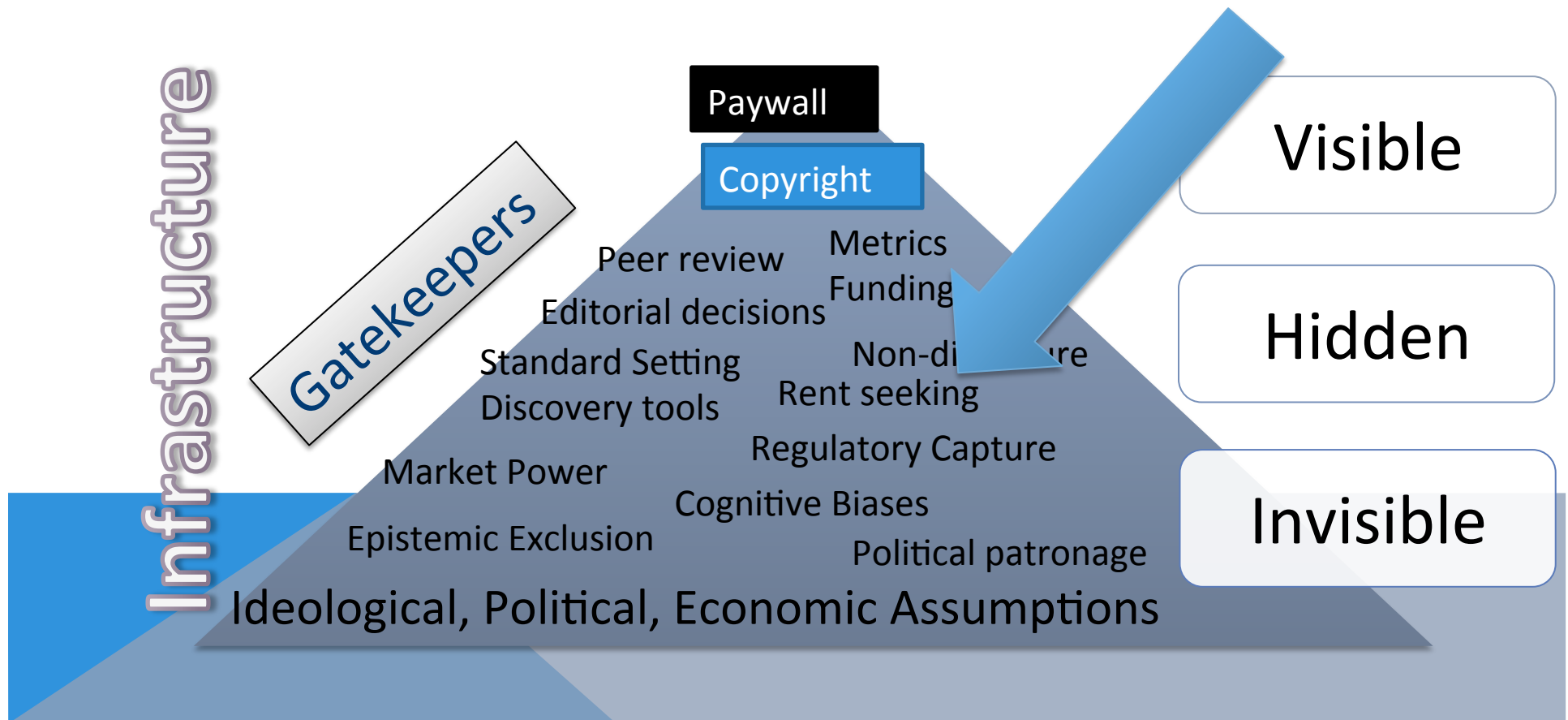
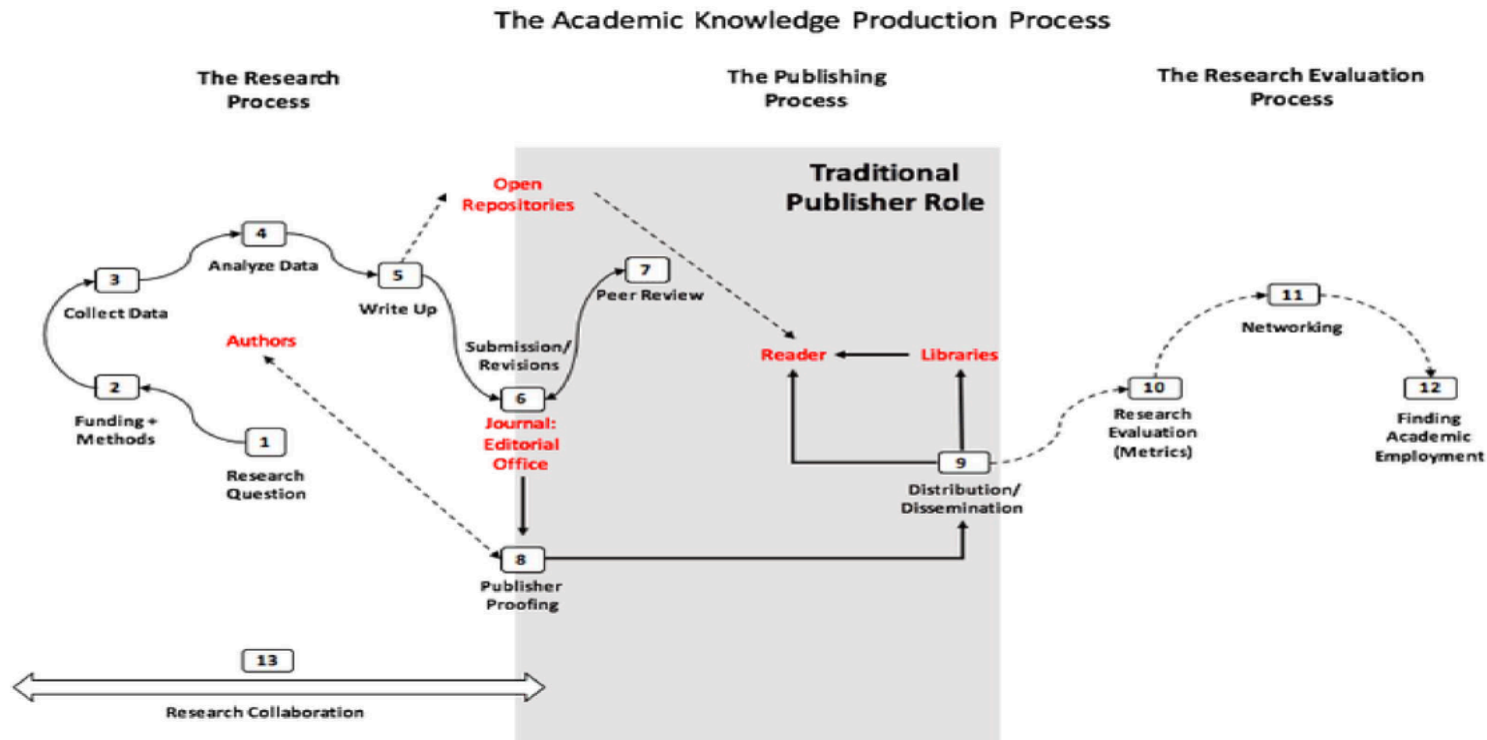


Figure 4: The Academic Knowledge Production Lifecycle

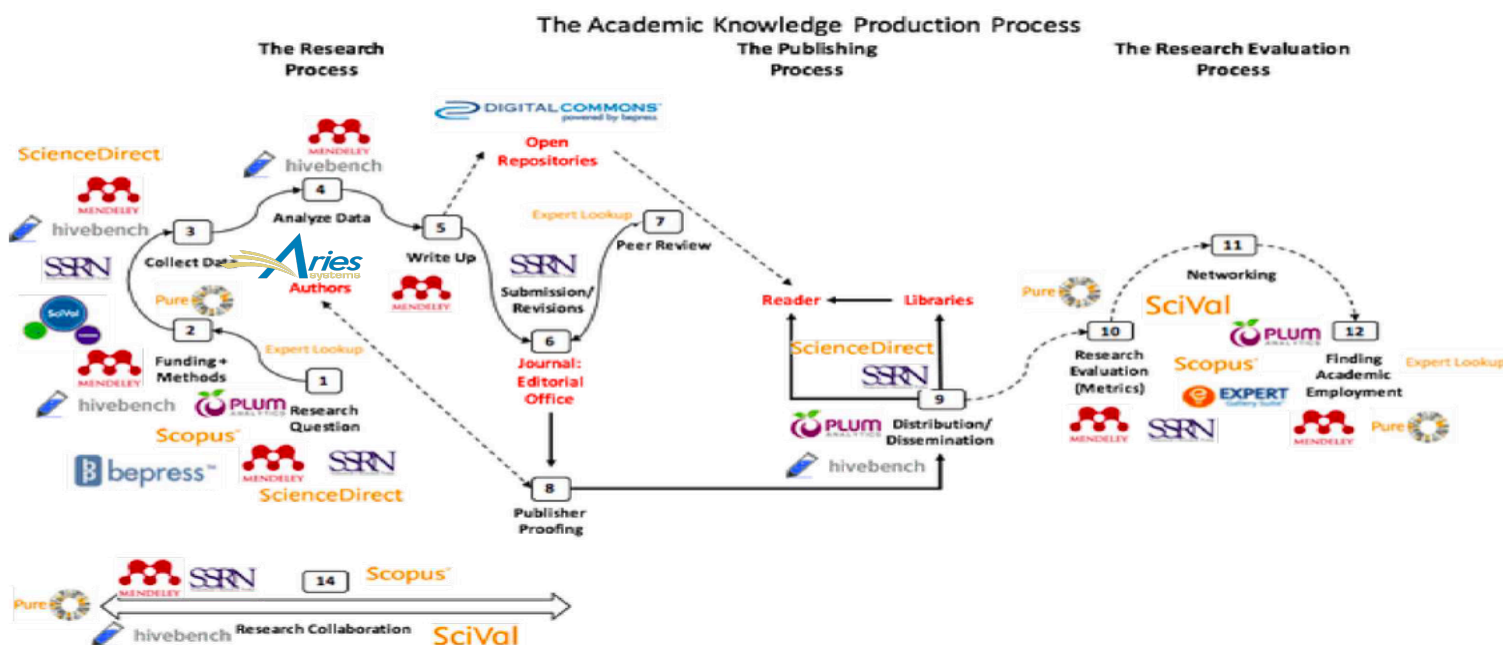


Posada , Alejandro and Chen , George - Inequality in Knowledge Production: The Integration of Academic Infrastructure by Big Publishers

<https://elnhub.enisciences.org/4618>

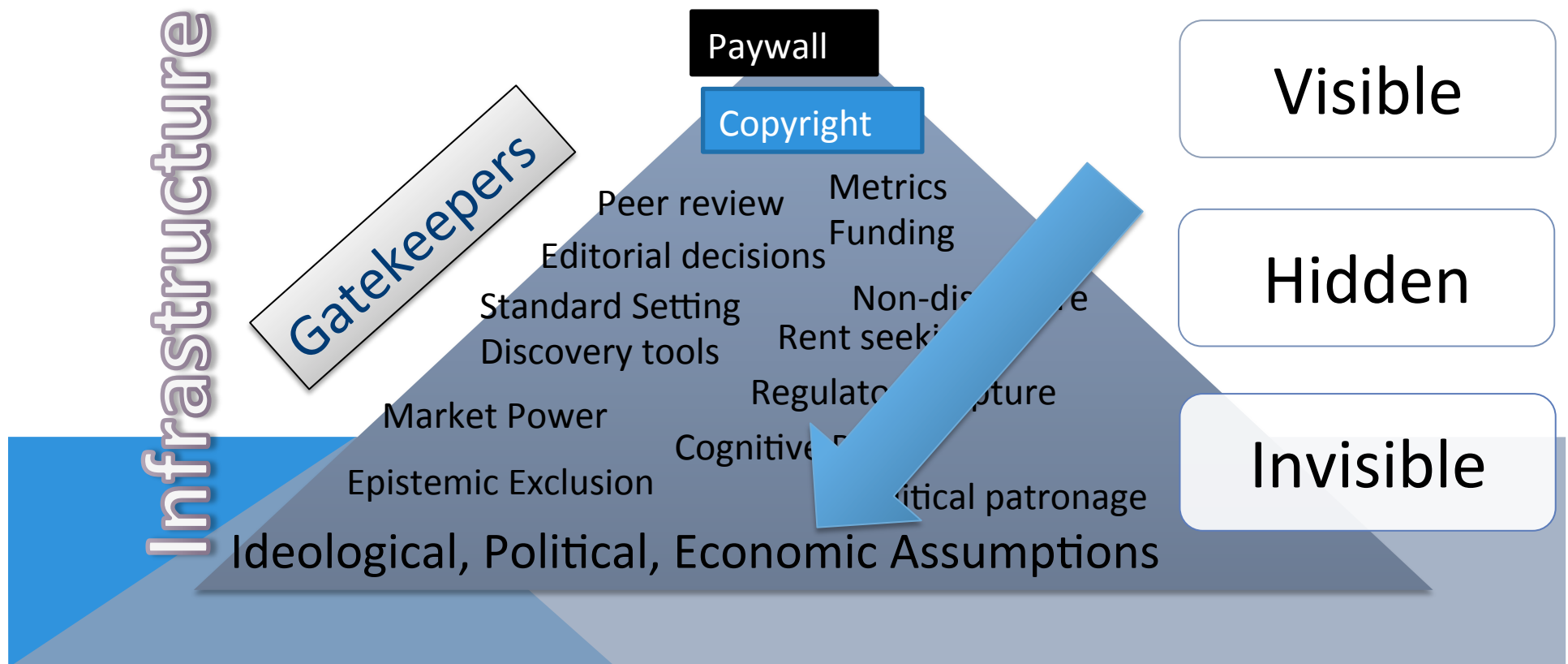


Figure 5: Elsevier Presence Throughout the Lifecycle



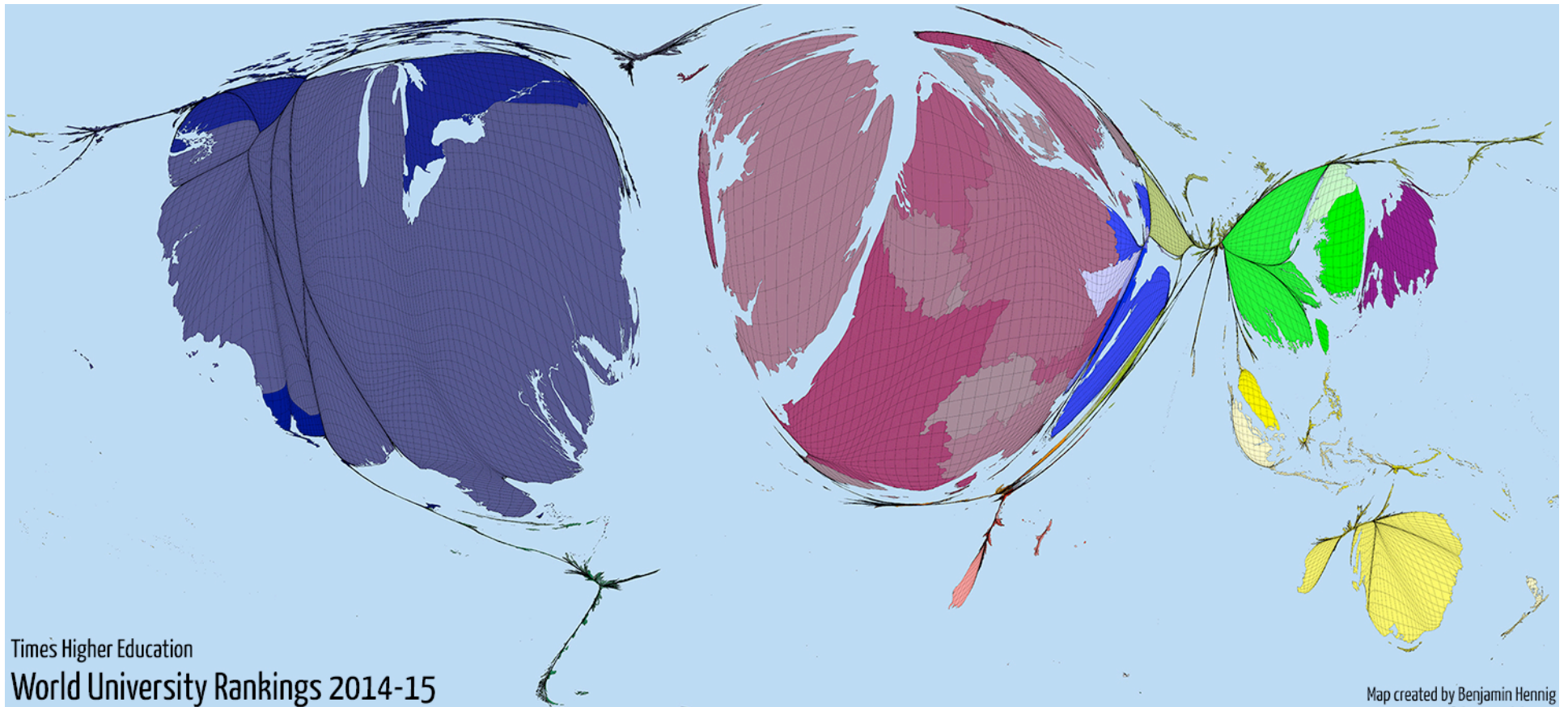
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<https://elpub.episciences.org/4618>

# SYSTEM OF POWER IN KNOWLEDGE PRODUCTION





## Academic Capitalism and the Geopolitics of Knowledge (Paasi 2015)



Times Higher Education

## World University Rankings 2014-15

Gridded cartogram Transformation of a kernel density estimation calculated from the overall top 200 score values

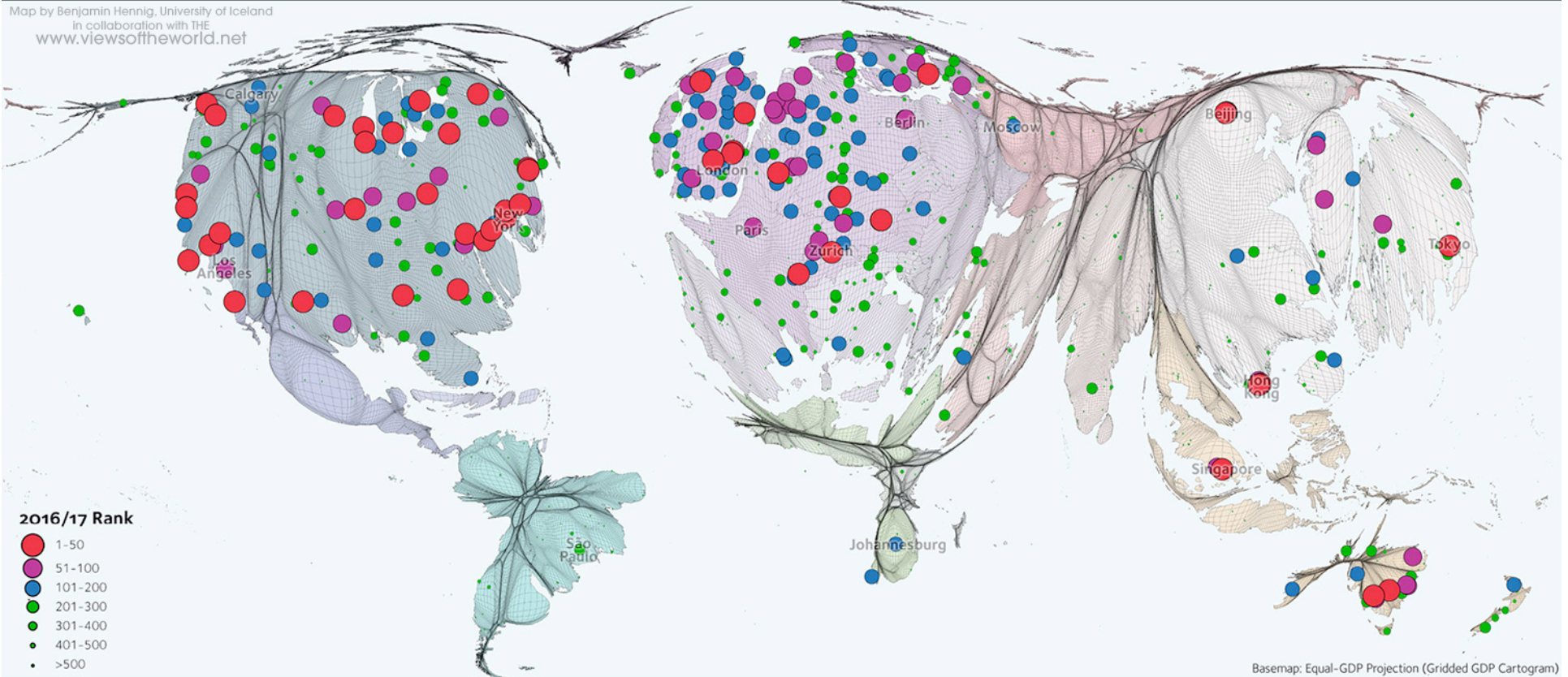
Map created by Benjamin Hennig  
[www.viewsoftheworld.net](http://www.viewsoftheworld.net)

[http://www.viewsoftheworld.net/wp-content/uploads/2014/11/](http://www.viewsoftheworld.net/wp-content/uploads/2014/11/THE2014_OverallScore_KernelDensityCartogram.jpg)  
[THE2014\\_OverallScore\\_KernelDensityCartogram.jpg](http://www.viewsoftheworld.net/wp-content/uploads/2014/11/THE2014_OverallScore_KernelDensityCartogram.jpg)



# THE WORLD UNIVERSITY RANKINGS IN A WORLD ADJUSTED FOR NATIONAL WEALTH

Map by Benjamin Hennig, University of Iceland  
in collaboration with THE  
[www.viewsoftheworld.net](http://www.viewsoftheworld.net)



[http://www.viewsoftheworld.net/wp-content/uploads/2017/07/](http://www.viewsoftheworld.net/wp-content/uploads/2017/07/THE_WorldUniversityRankings201617_gdpmap.jpg)  
[THE\\_WorldUniversityRankings201617\\_gdpmap.jpg](http://www.viewsoftheworld.net/wp-content/uploads/2017/07/THE_WorldUniversityRankings201617_gdpmap.jpg)



## World University Rankings

As a renewed multiyear partnership draws on Elsevier's Scopus data, we look at how those rankings are created

By [Shereen Hanafi](#) and [Sacha Boucherie](#) January 18, 2018

Elsevier Connect



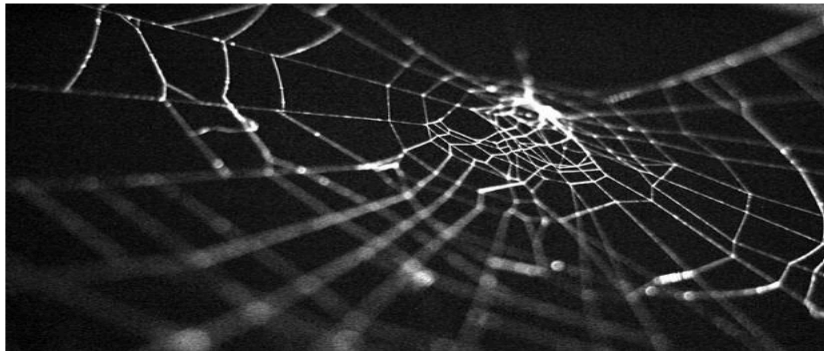
Trevor Barratt, Managing Director of *Times Higher Education* (left), and M'hamed el Aisati, Elsevier's VP of Product Management, Funding and Content Analytics meet to discuss the provision of Scopus analytics for the Times Higher Education World University Rankings.

<https://www.elsevier.com/connect/discover-the-data-behind-the-times-higher-education-world-university-rankings>

# Web of Science Sold for More Than \$3 Billion

**Thomson Reuters has transferred the science-citation database, along with the rest of its intellectual property and science division, to private-equity firms.**

By Bob Grant | July 15, 2016



WIKIMEDIA, TOM BURKE

The science-literature citation index, Web of Science, is going to private-equity firms as part of a \$3.55 billion dollar deal, struck by Thomson Reuters, the company that has owned and maintained the resource since its inception in 1997. The multibillion dollar transaction is part of Thomson Reuters' divestiture of its intellectual property and science division, which includes the sprawling Web of Science database.

The Web of Science was preceded in 1964 by the launch of the Science Citation Index, brainchild of Eugene Garfield—who also started *The Scientist*.

The database and division will soon likely be the property of private equity funds associated with

**Web of Science**Web of Science Core  
Collection

Data Citation Index

Databases

Open Access

Release Notes

Set up Web of Science

Highly Cited Researchers

Training

Kopernio

Getting started

# Web of Science

Trust the difference

[Contact us](#)[Product log in](#)

## What if you could uncover new connections in research with guaranteed quality, impact, and neutrality?

Research data is booming. The opportunity to reveal meaningful linkages – between past and current research, between collaborators, between funding and research impact – is huge, as long as you start with the right data.

With the *Web of Science* platform, you can access an unrivalled breadth of world-class research literature linked to a rigorously selected core of journals and uniquely discover new information through meticulously captured metadata and citation connections.

The *Web of Science* platform connects the [Web of Science Core Collection](#) to regional citation indexes, patent data, specialized subject indexes, and an index of research data sets, all in all totaling over 33,000 journals, meaning you have the breadth you need to be truly comprehensive in your search.

<https://clarivate.com/products/web-of-science/>

Elsevier: How research analytics is driving success at a Nigerian university

“In its 15 years, Covenant University has powered its way up the country’s research rankings and is looking to compete internationally”

<https://www.elsevier.com/connect/how-research-analytics-is-driving-success-at-a-nigerian-university>





25/10/18

## Togo: L'urgence de relever le budget de la recherche

*“Les chercheurs sont davantage occupés à vouloir monter en grade plutôt qu’à orienter leurs activités vers la résolution des problèmes de développement auxquels fait face l’Etat”*

**Kouami Kokou, directeur national de la recherche scientifique**

*“Researchers are more busy trying to upgrade their ranks rather than directing their activities towards solving development problems facing the state”*

**Kouami Kokou, National Director of Scientific Research**

<https://www.scidev.net/afrique-sub-saharienne/r-d/article-de-fond/togo-relegue-recherche-scientifique-second-plan.html>

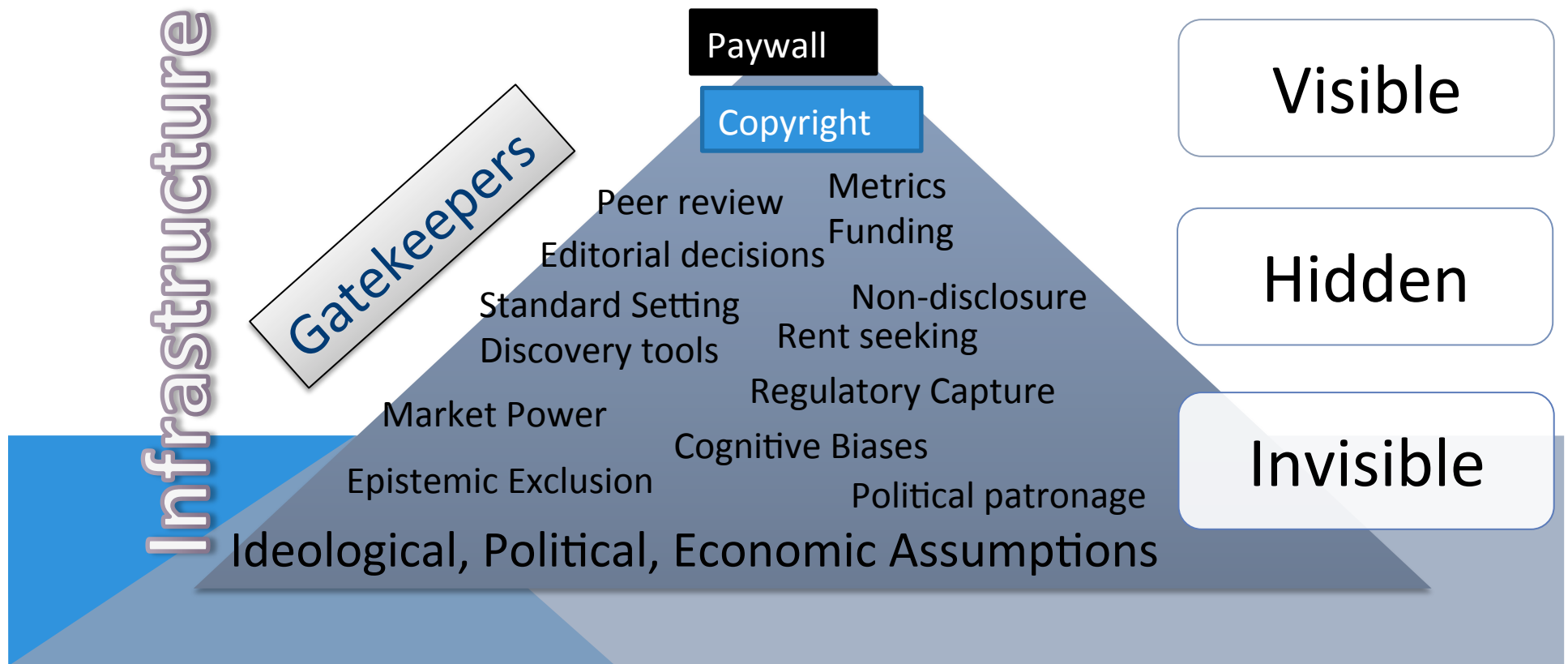
# VANDANA SHIVA: “**MONOCULTURE OF THE MIND**”

“The “monoculture of the mind” treats diversity as disease and creates coercive structures to remodel this biologically and culturally diverse world of ours on the concepts of one privileged class, one race and one gender of a single species.”

<https://www.commondreams.org/views/2013/04/24/tackling-monoculture-mind>



# SYSTEM OF POWER IN KNOWLEDGE PRODUCTION





# WHAT WE CAN DO

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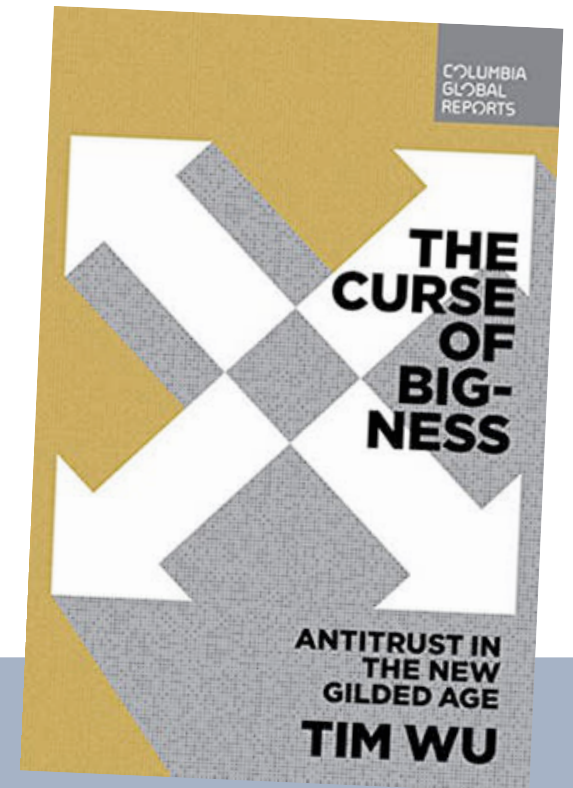
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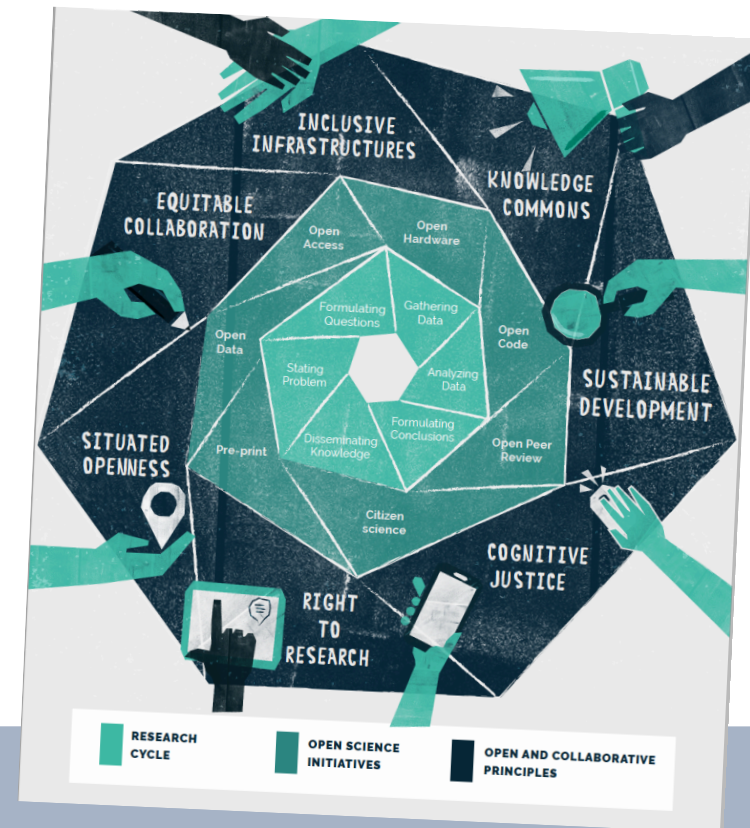
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Think De-growth for Sustainability





[https://youtu.be/Y1X0xtB\\_JcY](https://youtu.be/Y1X0xtB_JcY)

# TOWARDS A “PLURIVERSAL” FRAMEWORK



**“a world where many worlds fit”  
built on the concept of diversity  
within a whole Earth system, a  
multiplicity of worlds and peoples  
coexisting within the Planet**

**life’s ceaselessness, always flowing,  
constantly changing owing to  
interdependence of all aspects of  
living systems**

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