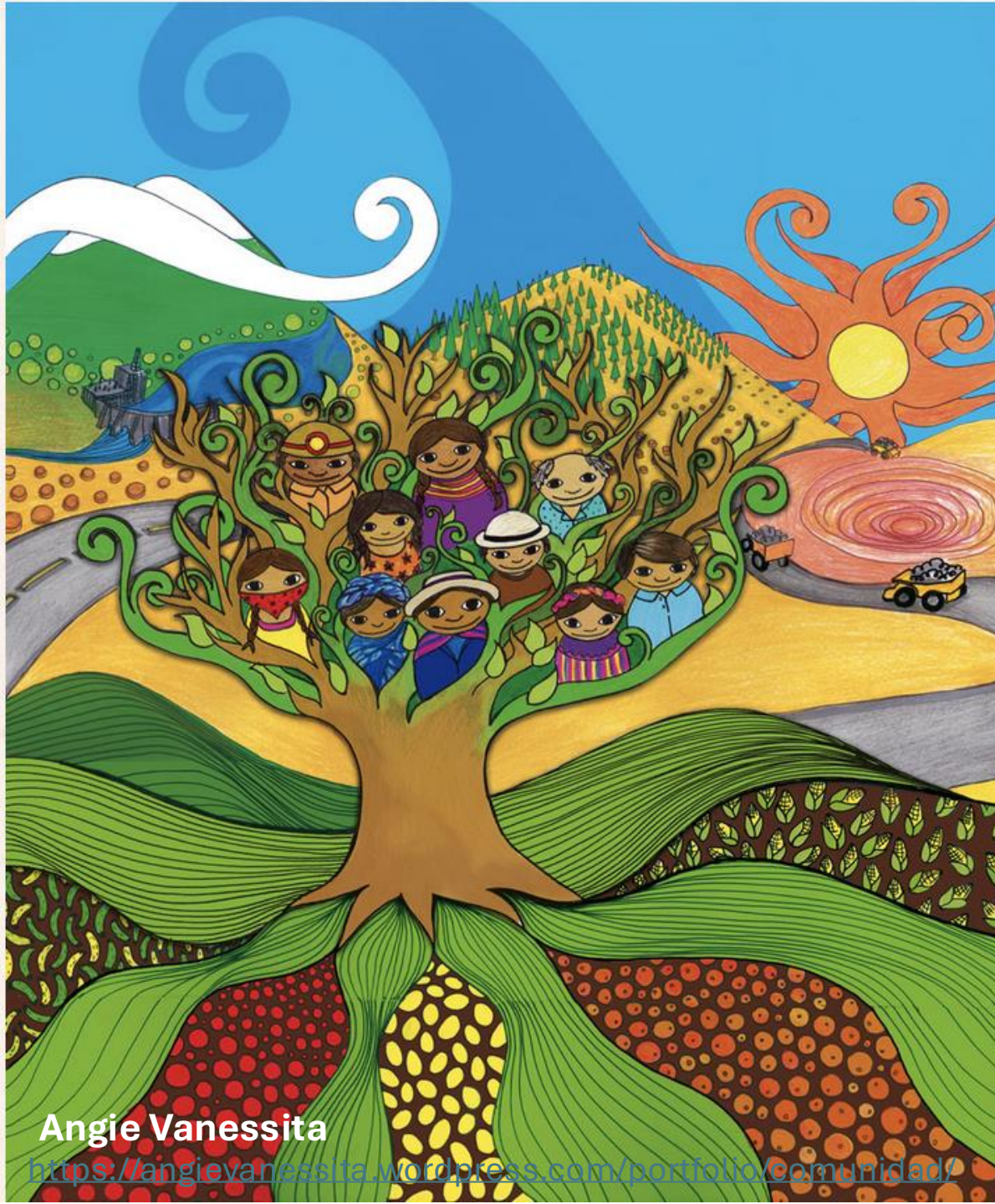




Angie Vanessita

<https://angievanessita.wordpress.com/portfolio/comunidad/>

Towards Generative Infrastructures



4TH UNITED NATIONS OPEN SCIENCE
& OPEN SCHOLARSHIP CONFERENCE

TOKYO, JAPAN | 16-18 OCTOBER 2025



Leslie Chan
Knowledge Equity Lab
Department of Global Development Studies
University of Toronto Scarborough

<https://knowledgeequitylab.ca/>



Current web contents

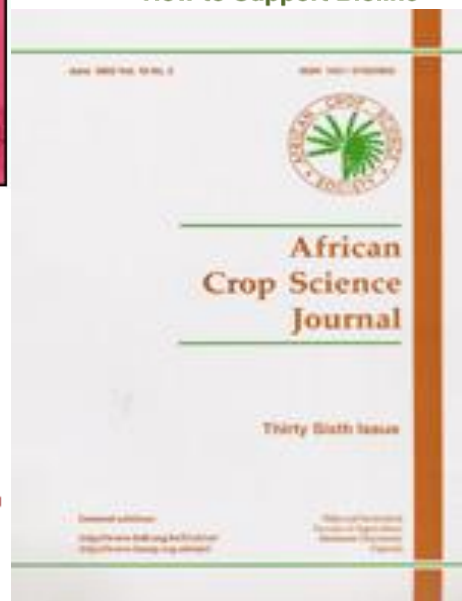


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What's new?

- African Crop Science Journal, Vol. 28 (03)
- Rwanda Public Health Bulletin, Vol. 02 (01)
- International Journal of Reproductive BioMedicine, Vol. 18 (06)
- Zoological Research, Vol. 41 (03)

347666

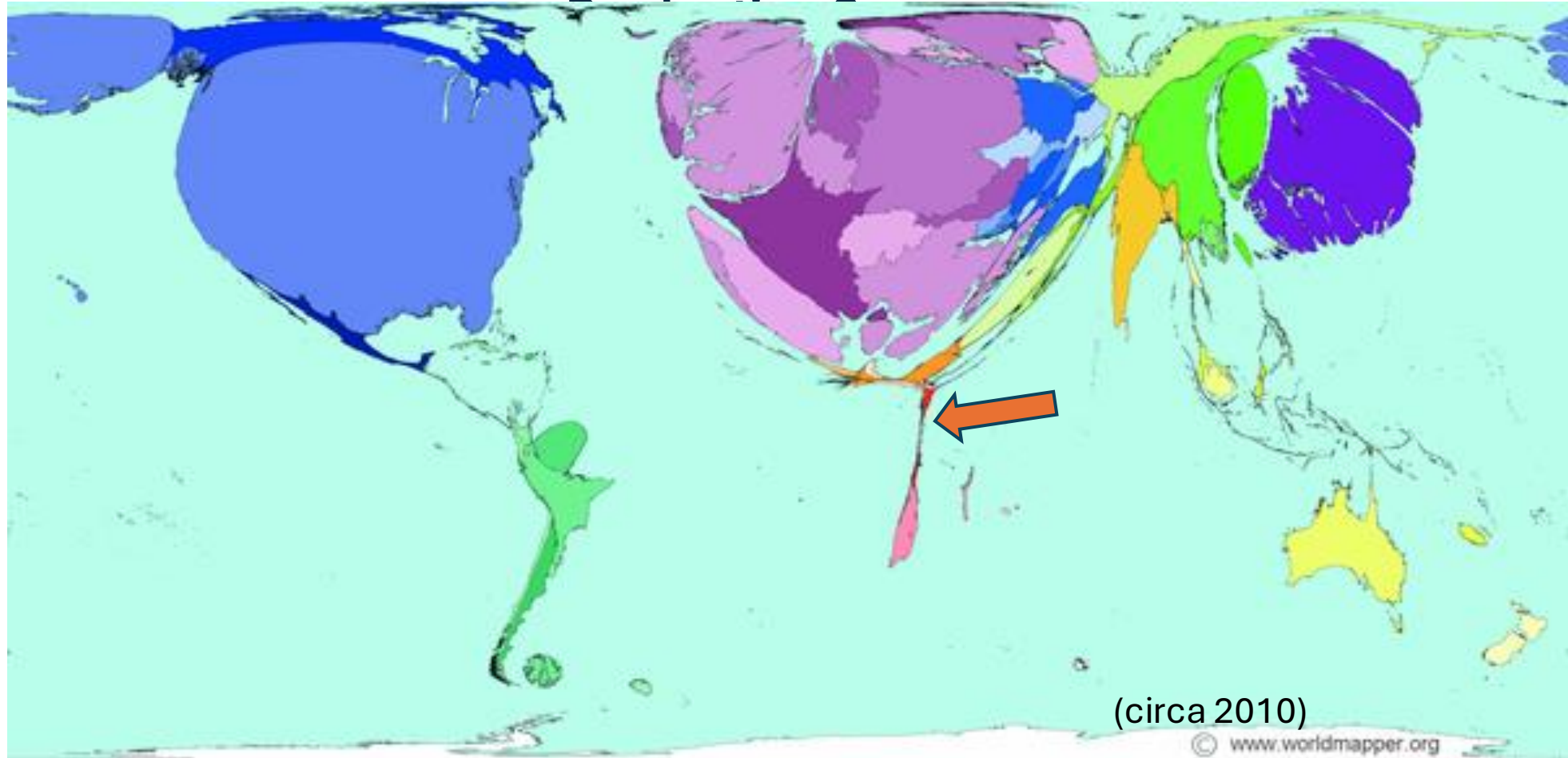
**full text
downloads
in Nov 2020**

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bioline@utoronto.ca

The World According to the “Web of Science” and Journal Citation Metrics

Unequal contribution and participation in “Research” and Knowledge



Chan L, Kirsop B, Arunachalam S (2011) Towards Open and Equitable Access to Research and Knowledge for Development. PLoS Med 8(3): e1001016. doi:10.1371/journal.pmed.1001016

<http://127.0.0.1:8081/plosmedicine/article?id=info:doi/10.1371/journal.pmed.1001016>



- 12 projects from Latin America, Middle East, Africa and Asia (2014-2017)
- Critical approach to Open Science – question the idea of “open” as the goal
- Key output: [Open and Collaborative Science in Development Manifesto](#)



POSTED BY ANGELA OKUNE ART, CHILDREN, CITIZEN SCIENCE, EDUCATION, ENVIRONMENT, KYRGYZSTAN, WATER

“THROUGH WATER”: PROMOTING AND COMMUNICATING OPEN & COLLABORATIVE RESEARCH WITH A PUBLIC EXHIBITION



POSTED BY ANGELA OKUNE ACCESS, ARGENTINA, CITIZEN SCIENCE, ESPAÑOL, STS

ALL THAT GLITTERS IS NOT GOLD: RETHINKING OPENNESS FROM THE AFFECTED POPULATION OF A CYANIDE SPILL IN JACHAL, ARGENTINA



POSTED BY ANGELA OKUNE CATH TRAYNOR, COMMUNITY RESEARCH, INTELLECTUAL PROPERTY RIGHTS, NATURAL JUSTICE, OCSOINET

PROTECTING AND PROMOTING INDIGENOUS PEOPLES RIGHTS IN ACADEMIC RESEARCH PROCESSES: A GUIDE FOR COMMUNITIES IN SOUTH AFRICA



POSTED BY ANGELA OKUNE CITIZEN SCIENCE, LEBANON, SDGS, SUSTAINABLE DEVELOPMENT, WATER QUALITY

THE SUSTAINABLE DEVELOPMENT GOALS (SDGS): A CALL FOR ACTION RESEARCH AT THE NATURE CONSERVATION CENTER AT AUB (AUB-NCC)



POSTED BY DENISE ALBARRACZ

LESSONS FROM COLOMBIA: TYING OPEN SCIENCE WITH LOCAL DEVELOPMENT NEEDS

Intersecting dimensions of Openness

Contextualizing Openness



Edited by Leslie Chan
Angela Okune, Rebecca Hillyer, Denisse Alborno and Alejandro Posada
University of Ottawa Press

Openness to
Publications and
Data

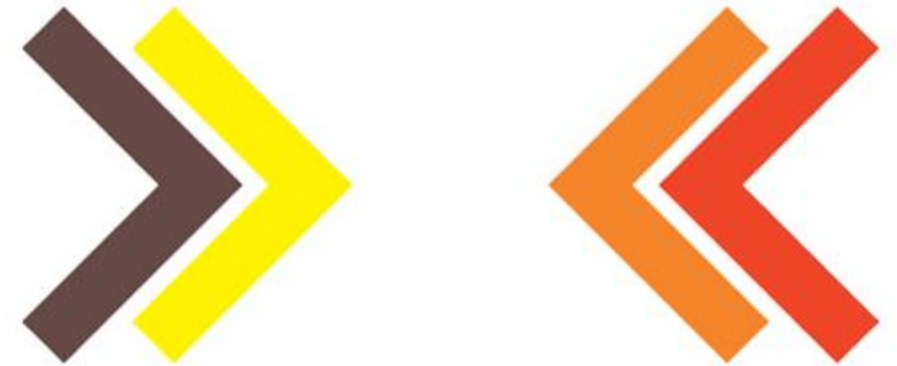
Openness to Society

Openness to
Excluded
Knowledges

<https://www.idrc.ca/en/book/contextualizing-openness-situating-open-science>

Open Science Beyond Open Access: For and with communities

A step towards the decolonization of knowledge



Prepared for the Canadian Commission for UNESCO
By Leslie Chan, Budd Hall, Florence Piron, Rajesh Tandon and Lorna Williams
Ottawa, July 2020



<http://doi.org/10.5281/zenodo.3946773>

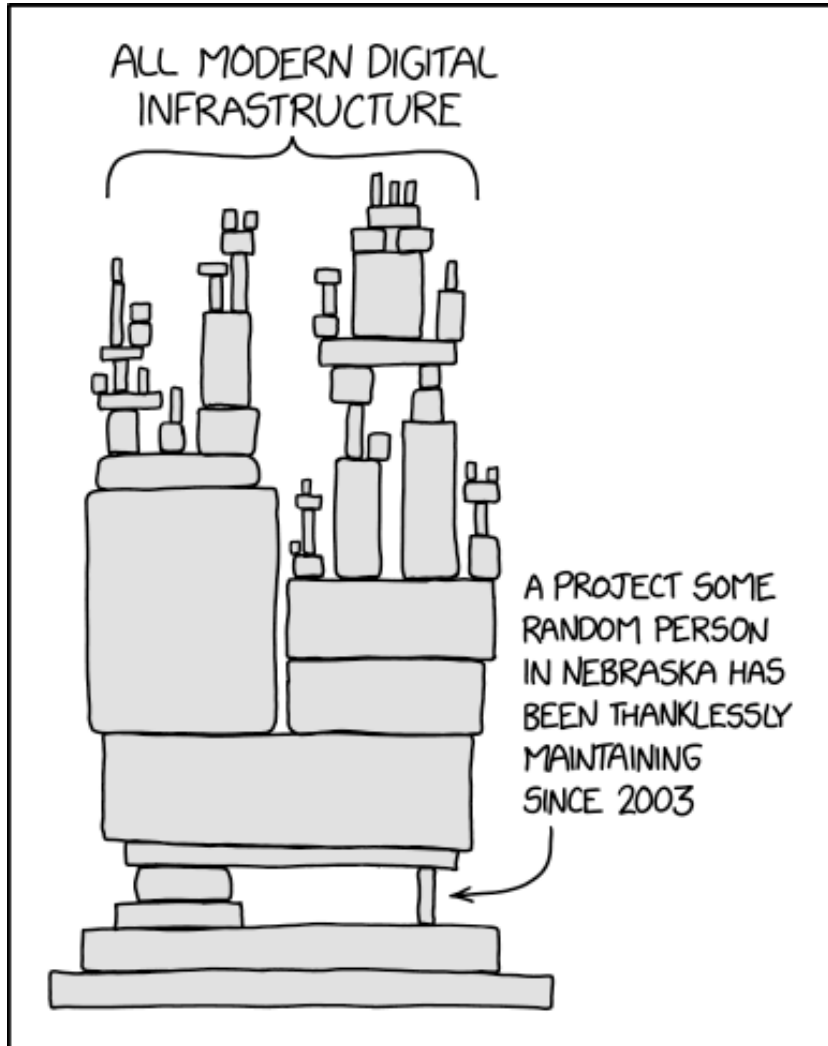
Situated Openness

Open $\neq$ Visible

“openness” is not a binary condition, but is highly situational, contingent, and dependent on the positionality, privilege and contexts of the knowledge makers and the infrastructure of mediation

(See the works of feminist philosophers of knowledge Donna Haraway, Sandra Harding, Patricia Hill Collins, Sarah Ahmed and **more**)

A system build for forgetting



<https://xkcd.com/2347/>

- Infrastructure is largely invisible
But notable when they breakdown
- Infrastructure is political
And it is constitutive of power
- Infrastructure is a complex assemblage
Made up of multiple social, technical
and institutional layers
- Infrastructure is enabling
But it is often uneven and inequitable
- Infrastructure is relational
But exclusion are built-in

Infrastructure Mediates

Perspective

Algorithmic injustice: a relational ethics approach

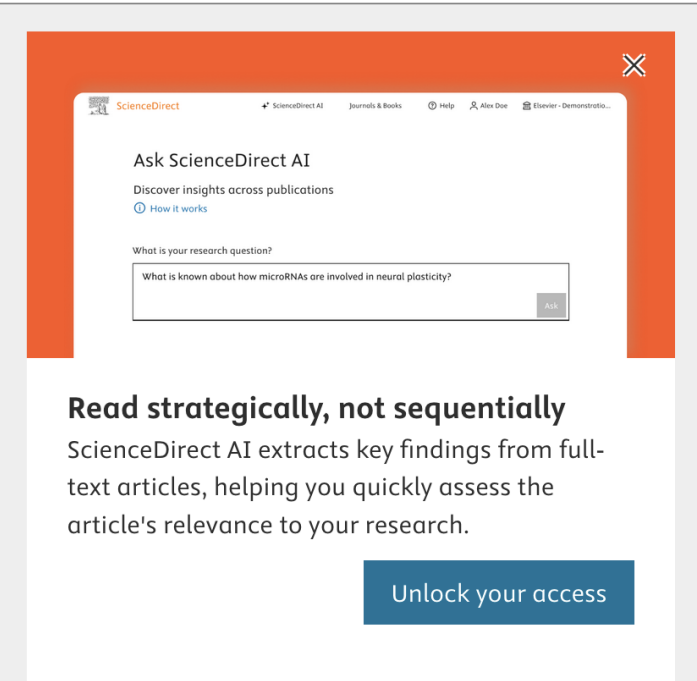
Abeba Birhane¹

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<https://doi.org/10.1017/etp.2021.1>

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The bigger

Machine learning
contextual, and
and packaged
research on

historical, often unexamined and uninterrogated, patterns and the negative consequences of algorithmic systems, especially on marginalized communities, have spurred work on algorithmic fairness. Still, most of this work is narrow in scope, focusing on fine-tuning specific models, making datasets more inclusive/representative, and “debiasing” datasets. Although such work can constitute part of the remedy, a fundamentally equitable path must examine the wider picture, such as unquestioned or intuitive assumptions in datasets, current and historical

rights and content

Open access

complex,
omated
ously,
etuates
sequences

Logic of Extraction and Epistemic Injustice

Decontextualization

Epistemic Erasure

Dehistoricization

Erasure of memory
and relationship

Depoliticization

Hidden power and
Metrics as governance

“Extractivism forms a complex of self-reinforcing practices, mentalities, and power differentials underwriting and rationalizing socio-ecologically destructive modes of organizing life-through subjugation, depletion, and non-reciprocity.”

An Enclosed System of Knowledge Production

DOI and other identifiers (e.g. ORCID, Scopus IDs, various metadata) are embedded into a variety research objects and form the *infrastructure of identification that facilitate datafication*

The Research

PlumX Metrics

The Publishing

The Evaluation

Embed PlumX Metrics

334	405	26	42
Citations	Captures	Mentions	Social Media

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Fingerprint Engine: Powers Research Intelligence for institutions & funding bodies

Elsevier Fingerprint Engine mines the text of scientific documents – publication abstracts, funding announcements, project summaries, patents, proposals– to create an index of weighted terms which defines the text Fingerprint visualization.

Review Description

It has become trivial to point out that algorithmic systems increasingly pervade the social sphere. Improved efficiency—the hallmark of these systems—drives their mass integration into day-to-day life. However, as a robust body of research in the area of algorithmic injustice shows, algorithmic systems, especially when used to sort and predict social outcomes, are not only inadequate but also perpetuate harm. In particular, a persistent and recurrent trend within the literature indicates that society's most vulnerable are disproportionately impacted. When algorithmic injustice and harm are brought to the fore, most of the solutions on offer (1) revolve around technical solutions to center disproportionately impacted communities. This paper

Bibliographic Details

DOI: [10.1016/j.patter.2021.100205](https://doi.org/10.1016/j.patter.2021.100205) >
PMID: [33659914](https://pubmed.ncbi.nlm.nih.gov/33659914/) >
URL ID: <http://www.sciencedirect.com/science/article/pii/S2666389921000155> >; <http://dx.doi.org/10.1016/j.patter.2021.100205> >; <http://www.scopus.com/inward/record.url?partnerID=HzOxMe3b&scp=85100761051&origin=inward> >; <http://www.ncbi.nlm.nih.gov/pubmed/33659914> >; <https://linkinghub.elsevier.com/retrieve/pii/S2666389921000155> >; <https://dx.doi.org/10.1016/j.patter.2021.100205> >; [https://www.cell.com/patterns/fulltext/S2666-3899\(21\)00015-5](https://www.cell.com/patterns/fulltext/S2666-3899(21)00015-5) >; <http://www.cell.com/> >

Provide Feedback

Have ideas for a new metric? Would you like to see something else here? [Let us know](#) >

Portfolio



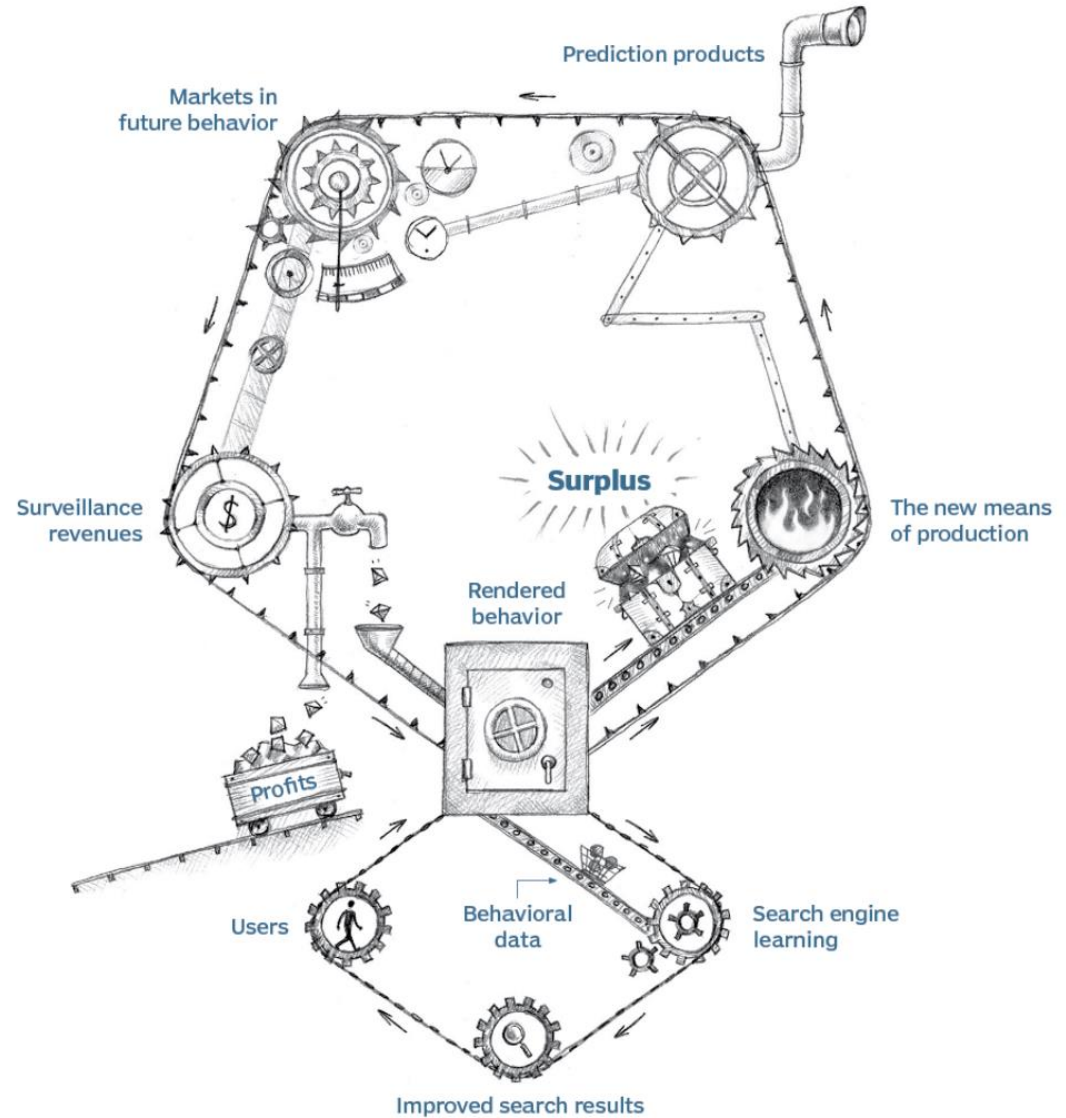
Open Science Open Data

So called FAIR data principle aims to transform data for machine reading and automatic processing

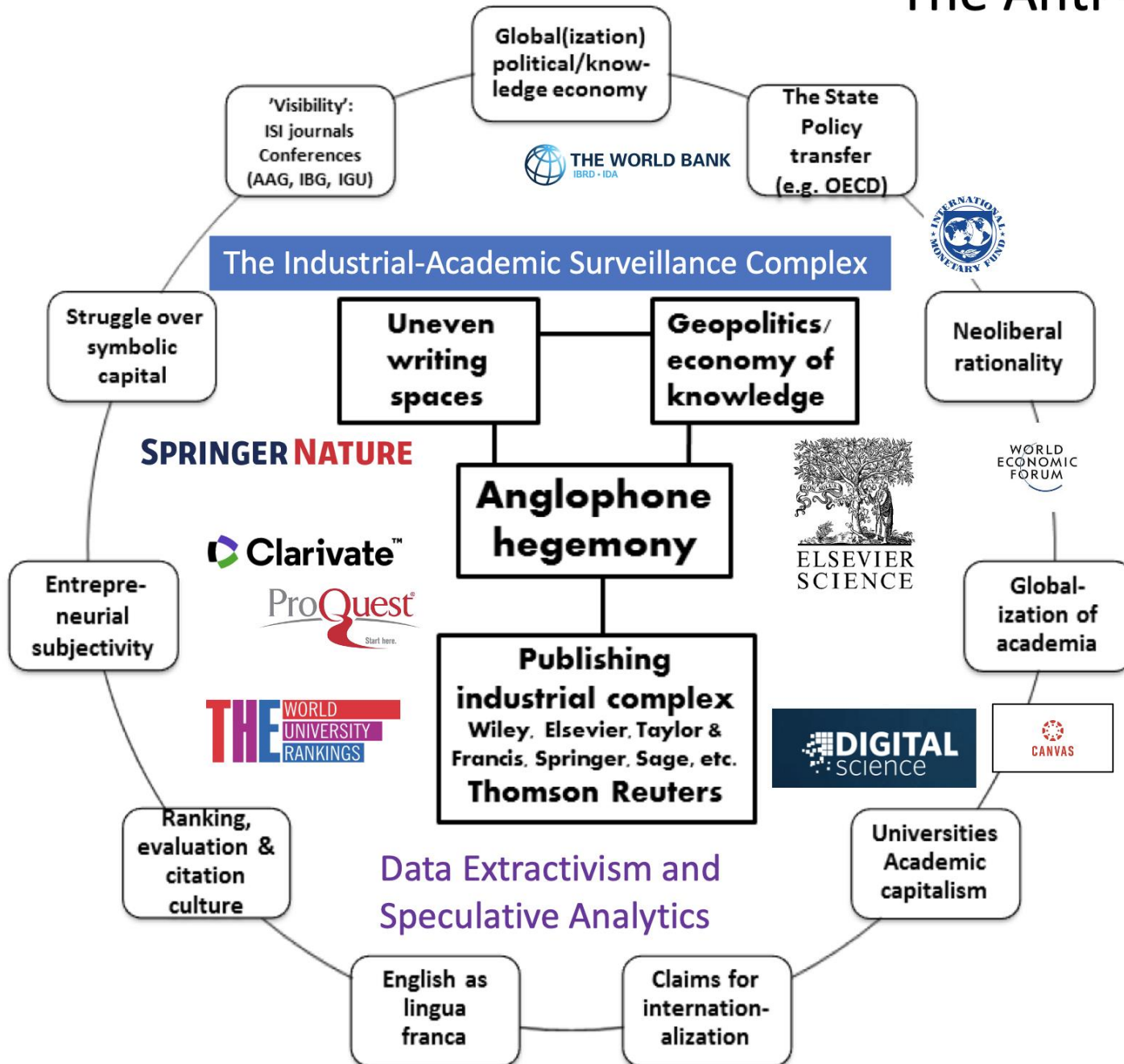
The tendency to shift from doing research to “doing data “

“Doing data” plays neatly into Surveillance Capitalism

**SHOSHANA
ZUBOFF**



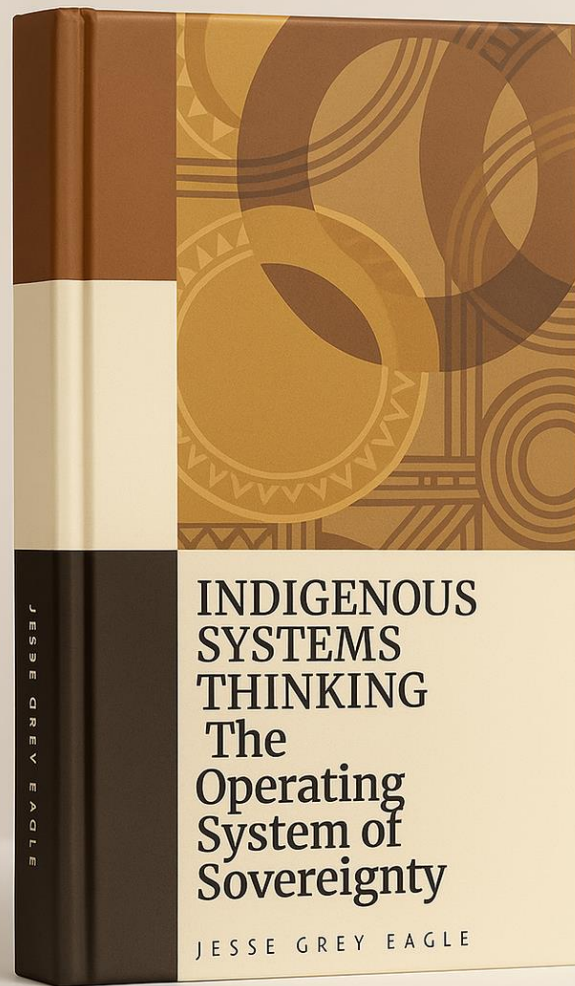
The Anti-Equity Global Machinery



Late-Stage Racial Capitalism and
Technocratic System of Enclosure
Sites of capital accumulation and
labour exploitation



Wheel of power: a conceptual framework for understanding the Anglophone hegemony
From Paasi, A. (2015). Academic Capitalism and the Geopolitics of Knowledge. In *The Wiley Blackwell Companion to Political Geography* (pp. 507–523). John Wiley & Sons, Ltd.
<https://doi.org/10.1002/9781118725771.ch37>



Western systems thinking can map flow and optimize throughput. It avoids the questions that confer legitimacy: Who does this system belong to? Who has the right to alter it? What is it accountable to beyond its own metrics? These frameworks excel at describing function while severing meaning. They perfect models while severing memory. They measure success without mapping belonging.

Reforms fail under these conditions. A system can hit every benchmark and still reproduce harm, because Western design begins in abstraction: people become roles, land becomes resource, knowledge becomes data. The goal is output, detached from coherence.

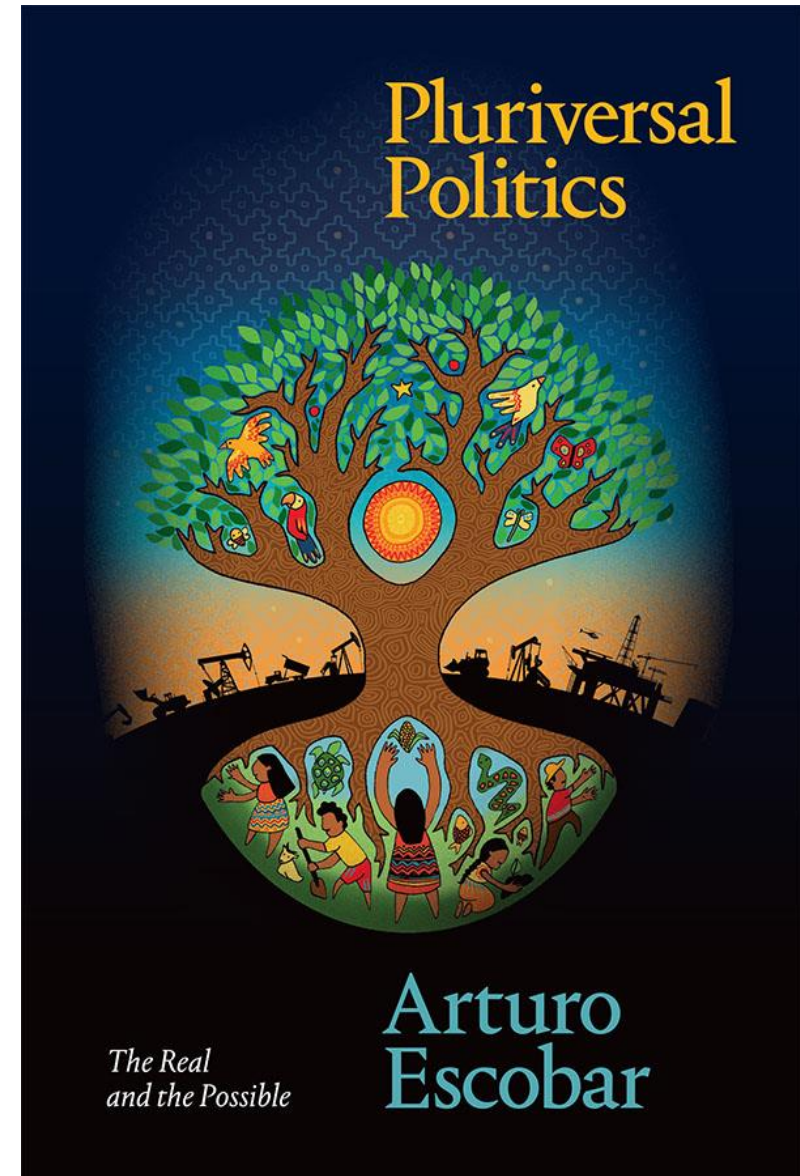
Indigenous Systems Thinking begins with relational accountability as architecture. Every system is accountable first to the relationships that give it life: to land as law, to ancestors as precedent, to descendants as mandate, to kin as governance. These are structural authorities.

Jesse Grey Eagle (2025)



<https://angievanessita.wordpress.com/portfolio/mujeres/>

Kinship as Infrastructure



Design shifts: toward a new OS (Operating System)?

- Relational Accountability over Compliance
- Scarcity Mindset to Abundance Thinking
Lewis, J. E., Whaanga, H., & Yolgörmez, C. (2025). Abundant intelligences: Placing AI within Indigenous knowledge frameworks. *AI & SOCIETY*, 40(4), 2141–2157.
<https://doi.org/10.1007/s00146-024-02099-4>
- Democratic and Shared Governance
- CARE and Ethical Stewardship
- Pluralistic Indexing and Community-Governed Metadata
- Commons-Based Infrastructure that facilitate mobility



thank you

tusind tak
謝謝 dakujem vám
ありがとう
ngiyabonga

dziękuję
merci
baie dankie
धन्यवाद molte grazie

suksema
danke
gracias
obrigada
obrigado
teşekkür ederim
شكرا
tack så mycket

tak
gràcies
tānan
dank u
teşekkür edire
mahalo