



Dominance of the global north in research and publishing – cases and future outlook

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Outline

- Introduction
- Reviewer experiences
- Cultural basis of science; epistemologies
- Discussion
- The western dominance of scientific publishing according to western norms
- Future considerations, alternatives



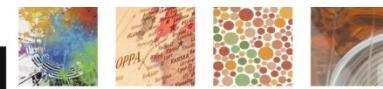
Introduction

- About me: DSc (Aalto) in IT, Metropolia, UNIDO (Tanzania), UN/OCHA, IFIP, reviewer for conferences and journals
- Knowledge is defined by the society; what is knowledge and how it is acquired
- Western science is a product of European societies; colonial
- Scientific methods
- Focus on Africa



Reviewer experiences: problematic manuscripts

- Paper looks formally good; i.e. statistical methods well applied
 - But the research question is irrelevant, not practical
 - Unclear concepts
 - Poor understanding of the field of the research and range of the applicability of methods
- Poor sources
 - references not to scientific journals but all sorts of papers from the internet;
 - or sources are not primary sources
 - or sources are outdated
- The article does not distinguish between opinion and empirical evidence
- Conclusions and recommendations do not stick to research results
- Some manuscripts depend heavily on previous work that was published in a predatory journal



Publication quality issues

- Open access predators;
 - “Results indicate so-called ‘predatory’ articles are authored by scholars from all fields and levels of academic experience rather than by inexperienced scholars only and ‘predatory’ contributions are not limited to developing countries”,
 - They charge APC
 - They are accessible and not easy to recognize, therefore blurring the definition of science



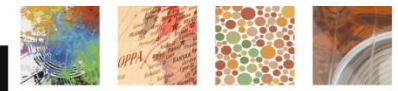
Studies that benefit the institution and solve acute problems

- From conference workshops in June - August 2021
- State University of Zanzibar survey on lock-down effects: practical questions that addressed the real situation
- Ghana university (UWE): looking for practical solutions for distancing requirements; eLearning technologies and policies
- South Africa: overviews of policies, challenges, ethical questions, practical tools and implementations



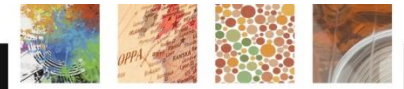
Summary of findings

- The research output seems to depend on how the problems have been defined and whether they rise from practical real world situations (Davidson).
- If the main goal is to get an article to a journal, the focus shifts to formal presentation, not substance
- Reaching proper research sources important
- Survey on the societal impact of research in SSA. “The responses portrayed impact as a (generally) positive effect that contributes to change in the daily life of human kind. The expectation that research should have impact at an almost general level of aggregation could be unique to the SSA context.”



Cultural basis of science; ontology and epistemologies

- Psychology, sociology and economics are typical fields of science that were created by European societies
- Western science is number-centered and follows the logic of money
 - Economics : society based on value of money, human "innate" greed and measurement of everything in numbers
 - Mathematics: Meaning and importance of numbers varies greatly between societies: rice-cultivating and other wet-agriculture societies give numbers "magical" power (Hindu, China, Bali, Maya)
- Ontological and epistemological differences
 - Epistemic cultures in science (Knorr Cetina); large infrastructures needed in many sciences such as high-energy physics, microbiology



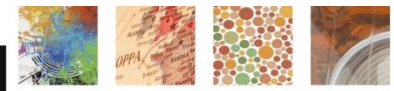
Cultural basis of science

- Psychology is the study of individual self;
 - whereas many societies see a person as part of the group, closely connected to the nature, environment and the spiritual world
 - Psychology studies have been conducted with US American university students (WEIRD); globally very unusual group
- Categorization principles are culture-dependent and context-dependent
- Anthropologists invented culture by classification, naming, writing down; Reification of culture
 - Example: Native American storytelling is an act in a certain context and conditions; stories are not artefacts for recording; some are sacred and need to be kept secret
 - M. Bloch says that anthropology was limited by those methods of naming and describing using language; human cognition contains more than just verbal expression and thinking with words
 - Oyewumi shows that European gender categories are not applicable in Nigerian contexts
- However, categorization is not only Western; in Japan categorising is omnipresent, such as counters for numbers



Bloch: How we think they think

- Zafimaniry of Madagascar (poor village people, “forest dwellers”)
- Literacy is not common
- **Knowledge** of a person is connected to her status and age, and it belongs to one of three kinds:
 1. young people know about wild things;
 2. married people have a house and their knowledge is linked to household and agriculture;
 3. elders have a traditional and historical knowledge which is not pragmatic but connected to the ancestry of the village and moral code (wisdom)
- School knowledge resembles knowledge of elders: it has no practical value but comes from an authority which is never questioned. It is not considered to be a source of information about the empirical world.



Discussion

- What is knowledge? School knowledge vs. real-world knowledge.
- Colonial heritage, colonial powers did not adapt to local context as they had no respect for the other cultures; "learning takes place when listening"-model in education
- Comprehension of texts, how they are read: mental model of what the text is about
- Rhetorical and oratorical traditions and devices depend on the culture, and that is reflected in academic texts as well.



The western dominance of scientific publishing according to western norms

- Global south has serious disadvantages in this competition
 - Their access to publications and body of knowledge is limited due to the high price of both online resources and libraries;
 - Attendance to conferences; international mobility (money and visa limitations)
 - Quality of school education by Western standards is poor and peer support and networking lacking
 - Education does not transmit good research practices, to the contrary, it tends to encourage copying
- The cost of reaching new information & evaluation of publications difficult without wide access
- Still, the measurements of research quality such as number of publications and impact are copied from the north



Hegemony of Northern knowledge

- Problems
 - "Hit and run" -science, South only source of data
 - Publishing in the North, prestige
- What is needed
 - Indigenous and local ways of doing research need to be supported and appreciated
 - Production of knowledge by the South about the South
 - Production of knowledge by the South about the North
 - Change is driven by the South, decolonizing the practices
 - Recognition of continued dependencies and power dynamics



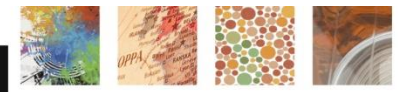
Publishing: Anglo dominance

- Language issues
 - Elsevier states that articles need to be American or British English, even when there are so many scientific communities in other English-speaking areas.
- Reviewing: “native speakers” from Europe and the US like to comment on vocabulary choices and other issues that display their superiority, disregarding various jargons in English.
- Writing styles and preferences varies even in Europe,
 - precision vs. verbal elegance;
 - in Japanese much depends on the context and not everything is said explicitly
- Geographical bias when judging scientific studies has been detected by several studies; enforces US research; (Omicron and SA)
- Bias with citations (US, UK, male authors)



Future: Publishing alternatives

- Open Access
 - Budapest Open Access Initiative (BOAI) is a public statement of principles relating to open access to the research literature, which was released on Feb 14, 2002
 - French EU presidency Open Access initiative 2022
 - Latin American Universities Open Access network (Spanish, Portuguese)
 - Gold & hybrid charge APC and are a huge source of income to publishers
 - Diamond and Green free for authors, highest citation impact
 - APCs by major commercial publishers cause inequities
 - predatory publishers cause confusion
- <https://arxiv.org> in mathematics & physics, medRxiv and bioRxiv
 - preprints, review afterwards



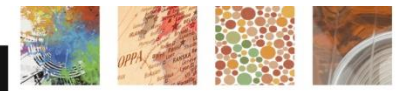
Publishing alternatives, languages

- Latin American Universities Open Access network (Spanish, Portuguese) by universities, government support
- Finnish multilingual publishing initiative
- DOAJ (directory of open access journals) extended to several language areas
- Efforts to create alternative routes also in Africa are emerging
 - South African journals
- China, Japan, India, Russia have partially independent traditions
 - Language barrier for global access
- What if major journals and conferences were in Chinese? Standards of science set by Chinese scientific thinking? - might happen sooner than we think



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Thank you!

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