



An African Researcher's Perspectives: Successes and Challenges

Framing current scholarly communications
challenges and opportunities for Africa

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Presentation at Fiesole Retreat Cape Town

07 – May – 2024

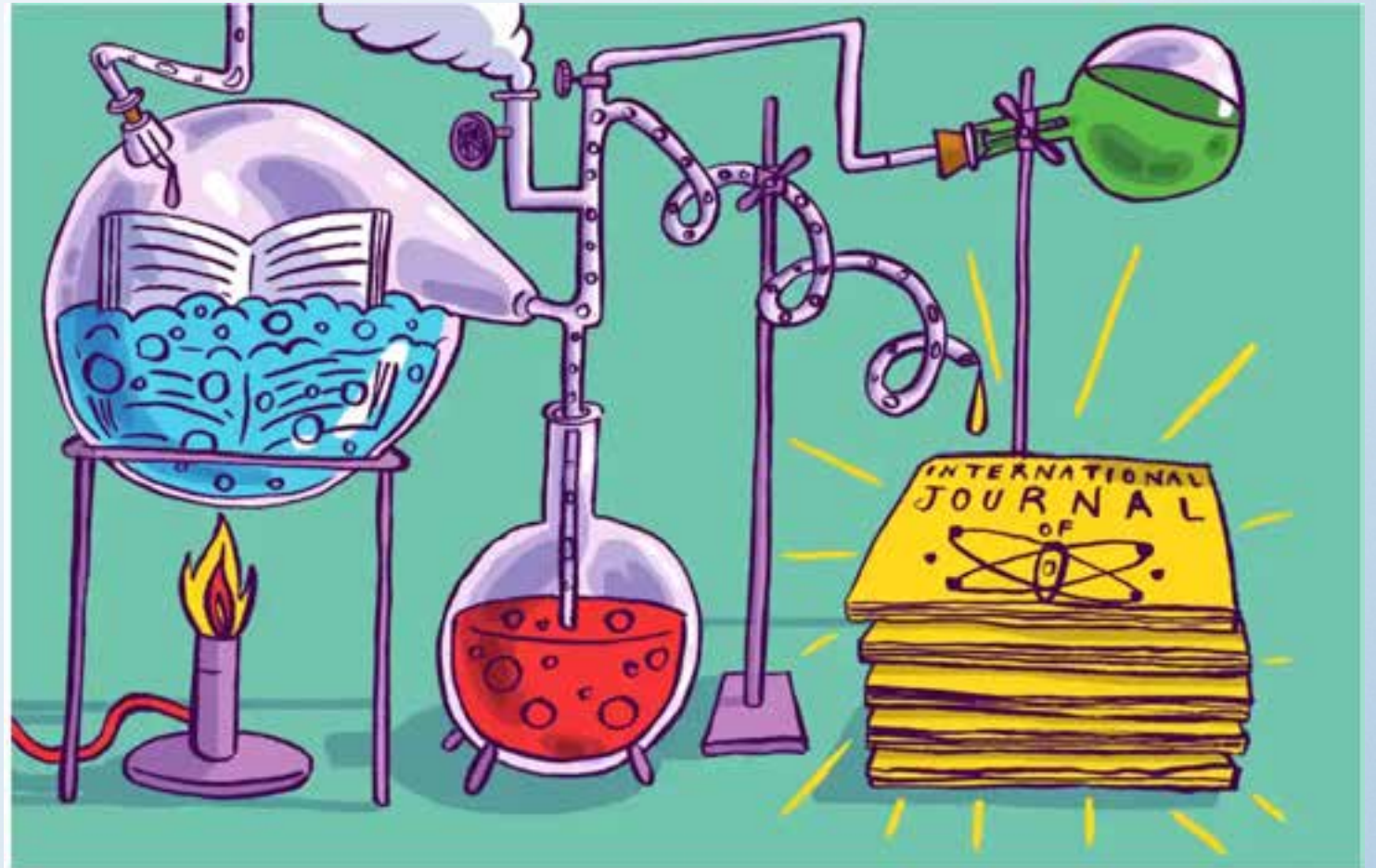


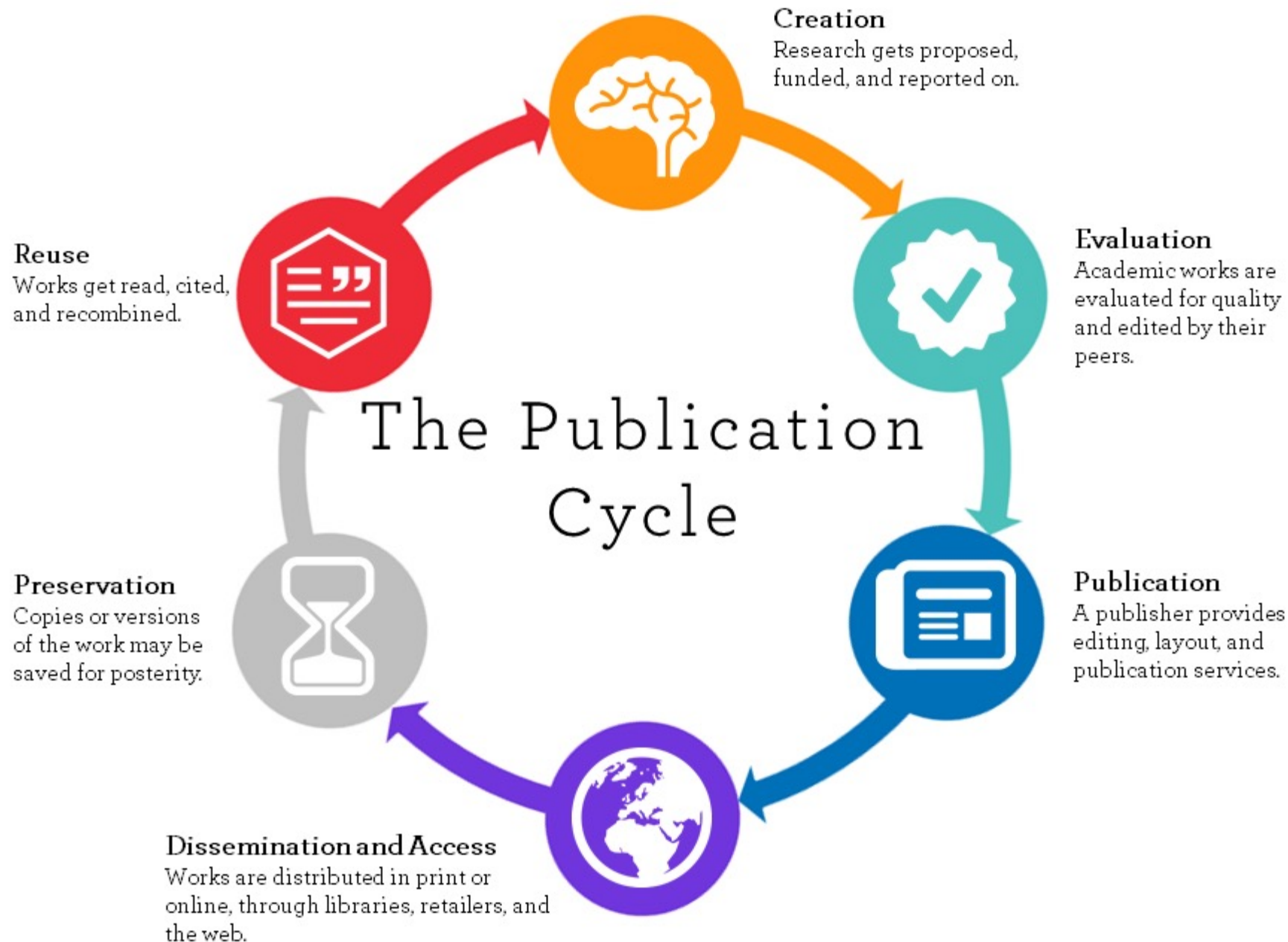
Outline

- Overview
- Evolution of Academic publishing
- Snapshot of African SC landscape
- The Challenges
- The Successes
- Library at the intersect
- Conclusion
- Recommendations

Overview

- To elicit any impact, research must be communicated
- This scholarly communication takes place through academic publishing in various media
- Scientific articles are the primary means by which science/scholarship is systematically represented in the world.



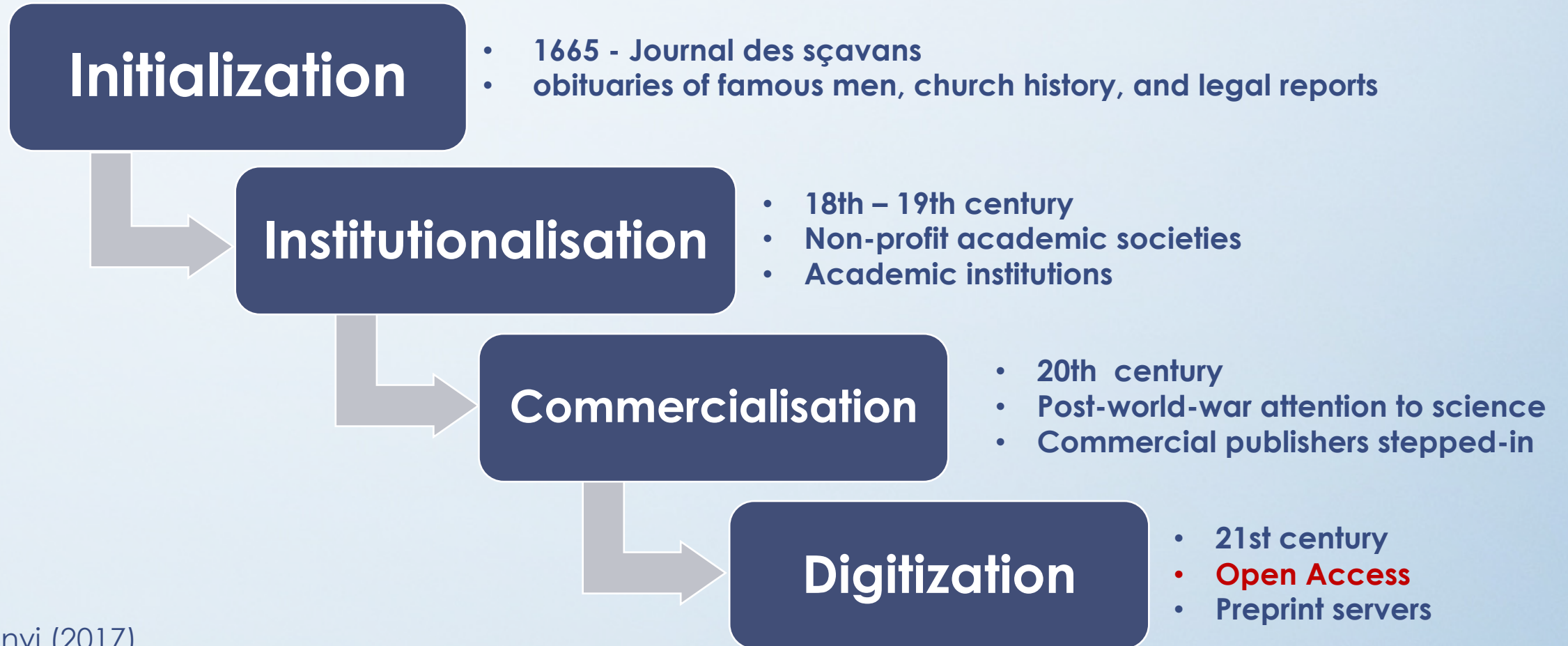


Without scholarly communication...

it would be difficult, or even impossible...

to expand the frontiers of knowledge, and to make the discoveries that have become vital to human existence.

Evolution of academic publishing^{1,2}



¹Buranyi (2017)

²AJE Scholar (2022)

- **African researchers engage in scholarly communication to:**
 - Facilitate research impact
 - Contribute to global knowledge
 - Attain promotion, employment, etc.
 - Increase visibility
 - Enhance opportunities for collaboration



The snapshot!

- **Functional R&D system is required to address socioeconomic challenges**
- **Knowledge production is critical for Africa's growth and development**
- **However, Africa currently produces 1-2% of the global scientific output** (Olufadewa et al, 2020; Gurib-Fakim& Signé, 2022)
 - **But the continent contributes 18% to the global human population**



Africa's Knowledge Output remains marginal

“African researchers and publishers **labour in the shadows of a global knowledge system** dominated by ‘Northern’ journals and by global publishing conglomerates.”

-Mills et al (2023)

The representation of African journals in Web of Science, Scopus and Ulrichsweb

	Ulrichsweb		Web of Science			Scopus		
	N	%	N	%	Difference	N	%	Difference
Central and Southern Asia	7077	8.48%	584	2.88%	-66.00%	835	3.58%	-57.83%
Eastern and South-eastern Asia	12561	15.06%	1004	4.96%	-67.09%	1644	7.04%	-53.25%
Europe	36463	43.71%	11942	58.96%	34.89%	13850	59.32%	35.71%
Latin America	5941	7.12%	956	4.72%	-33.71%	918	3.93%	-44.78%
North Africa and Western Asia	2295	2.75%	337	1.66%	-39.50%	425	1.82%	-33.81%
North America	16955	20.32%	5400	26.66%	31.20%	5684	24.34%	19.80%
Oceania	1361	1.63%	374	1.85%	13.28%	352	1.51%	-7.51%
Sub-Saharan Africa	1847	2.21%	147	0.73%	-67.16%	161	0.69%	-68.80%
Global	83429		20255			23349		

Toluwase Asubiaro, Sodiq Onaolapo and David Mills **Journal Coverage of Web of Science and Scopus: A comparison of different world regions** (under review at Scientometrics)

The challenges

Geographical barriers

Institutional barriers

Outlet barriers

Individual barriers

Geographical barriers

- **Infrastructural deficits**
 - Library, laboratories, power, ICT, etc.
- **Linguistic barriers**
 - Science is mostly represented in the English language
- **North-South research focus dichotomy**
 - e.g., we still have to research on getting 'clean water' to our homes
- **Resource insufficiency**
 - Poor funding (African research depends mostly on non-African funding)
 - Research funding:
 - African average: 0.4% of GDP (Caelers & Okoth, 2023);
 - Europe, Asia, and North America - about 27%, 31% and 37% respectively of GDP respectively (Olufadewa et al, 2020)
- **Low number of researchers** (Kariuki & Kay, 2017)
 - 4,000 researchers / one million people: US/UK
 - 428 researchers / one million people: Chile
 - 198 researchers / one million people: Africa

On the Marble

“There are limits to **‘leapfrogging’** – the notion that African countries can leap directly from an agrarian to an information era, without having to pass through the intervening development stages. Every country needs a physical infrastructure of airports, roads, railways, power transmission lines, etc.”

– Peter J. Lor (2007)

Institutional barriers

- 'Foreign' vs 'local' journals
 - Quality concerns
 - Indexing
- “Finite scholarship” regime
- Inadequate formal training in research and scholarly communications
- Dearth of mentorship
- Resource deficiency
- Discouraging effort-reward system
- Lack of clarity about ‘scholarly output’
- Analogue publishing

On the Marble

“African academics are forced to ‘choose’ between contributing to regional knowledge ecosystems or seeking the ‘recognition’ provided by indexed European and American journals”

– Asubiaro et al (2024)

Outlet barriers

- The rejection ‘party’
- Pay per view
- Peer-review process
- Publishing models/APC
- Decreasing tolerance for English-deficient manuscripts
- Insufficient publishing outlets in Africa
- Slant, styles and conventions
- Exclusionary indexing and metrics

On the Marble

“Among other failings, journal pricing far exceeds the cost of production **and lies beyond the reach of authors or readers, particularly in low- and middle-income countries**”
- Catherine Ahearn (2022)

On the Marble

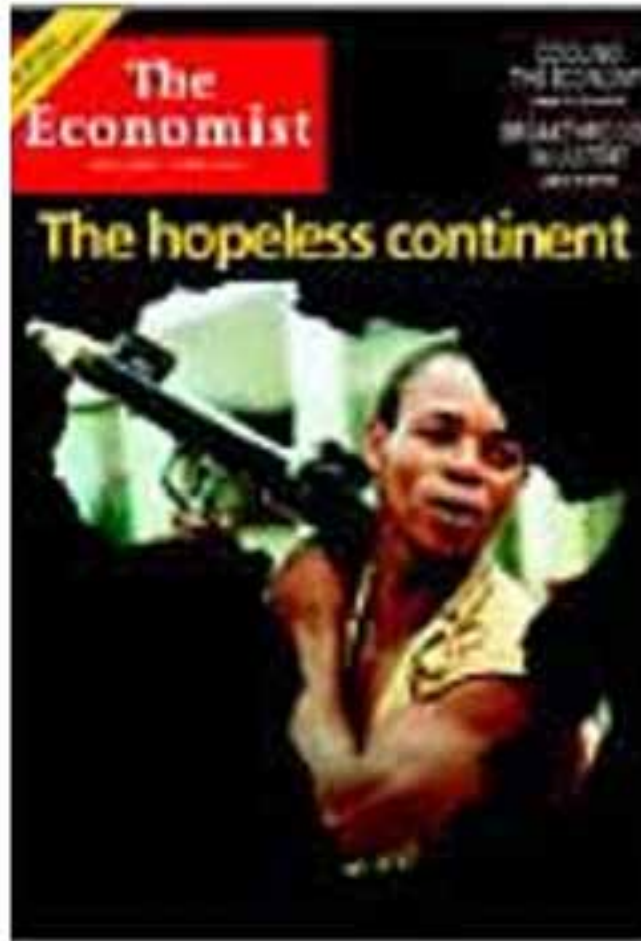
“Look, when I discover a **new publisher from Nigeria, I admit I am more suspicious** than I would be were the publisher from, for example, the Vatican.” – Jeffery Beal

Individual Barriers

- Brain drain/greener pasture
- Research capacity deficiency
- Out-of-pocket research
- Working in silos
- Rigour of academic commitment
- Plagiarism/predatory academic practices
- Poor reading culture
- Inferiority mentality
 - every region has its particularities and all knowledge is at first local

Success? Yes!

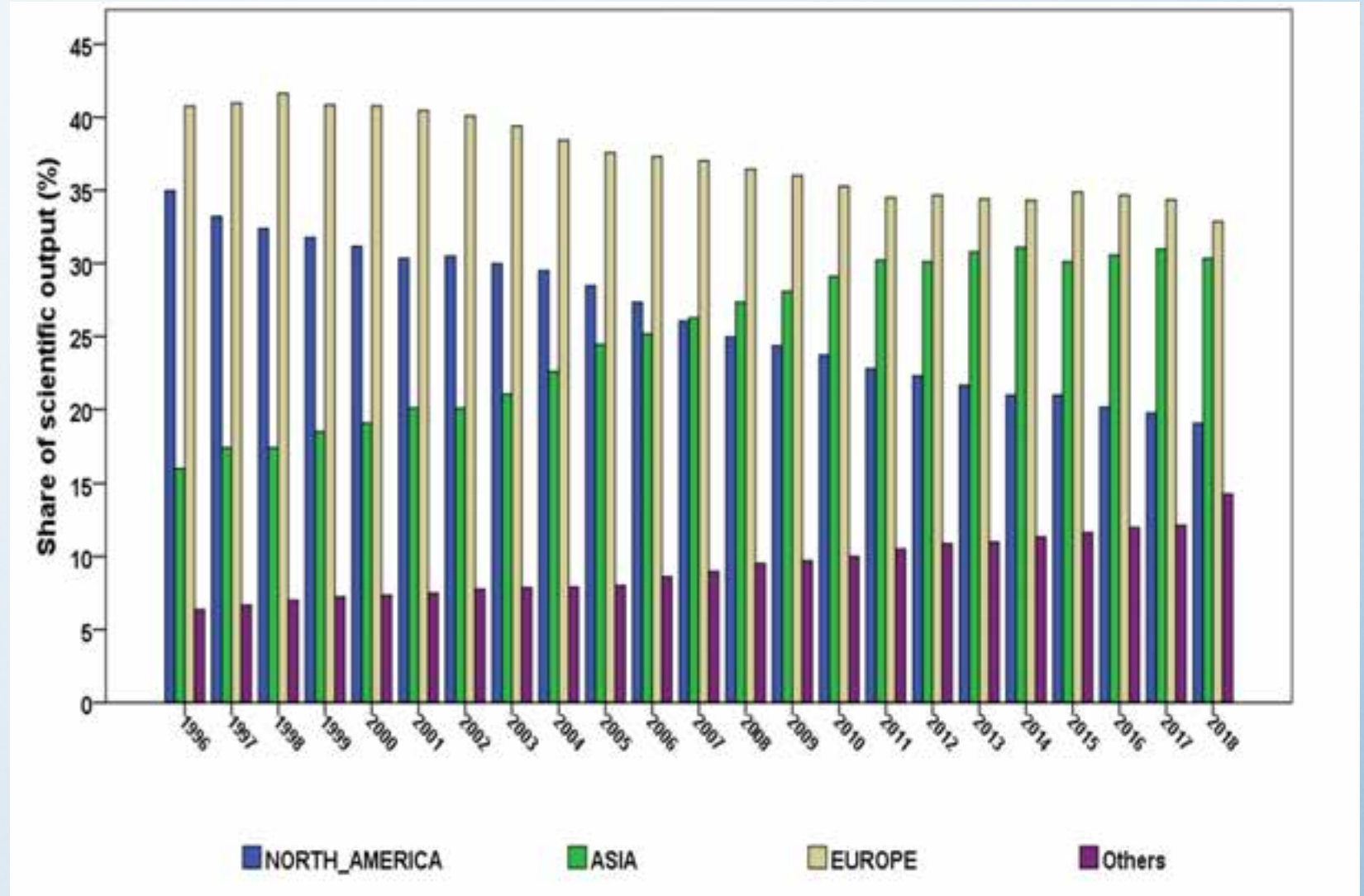
- Successes with scholarly communications in Africa are barely appreciated when seen from a cross-sectional point of view



Africa's Research is Rising

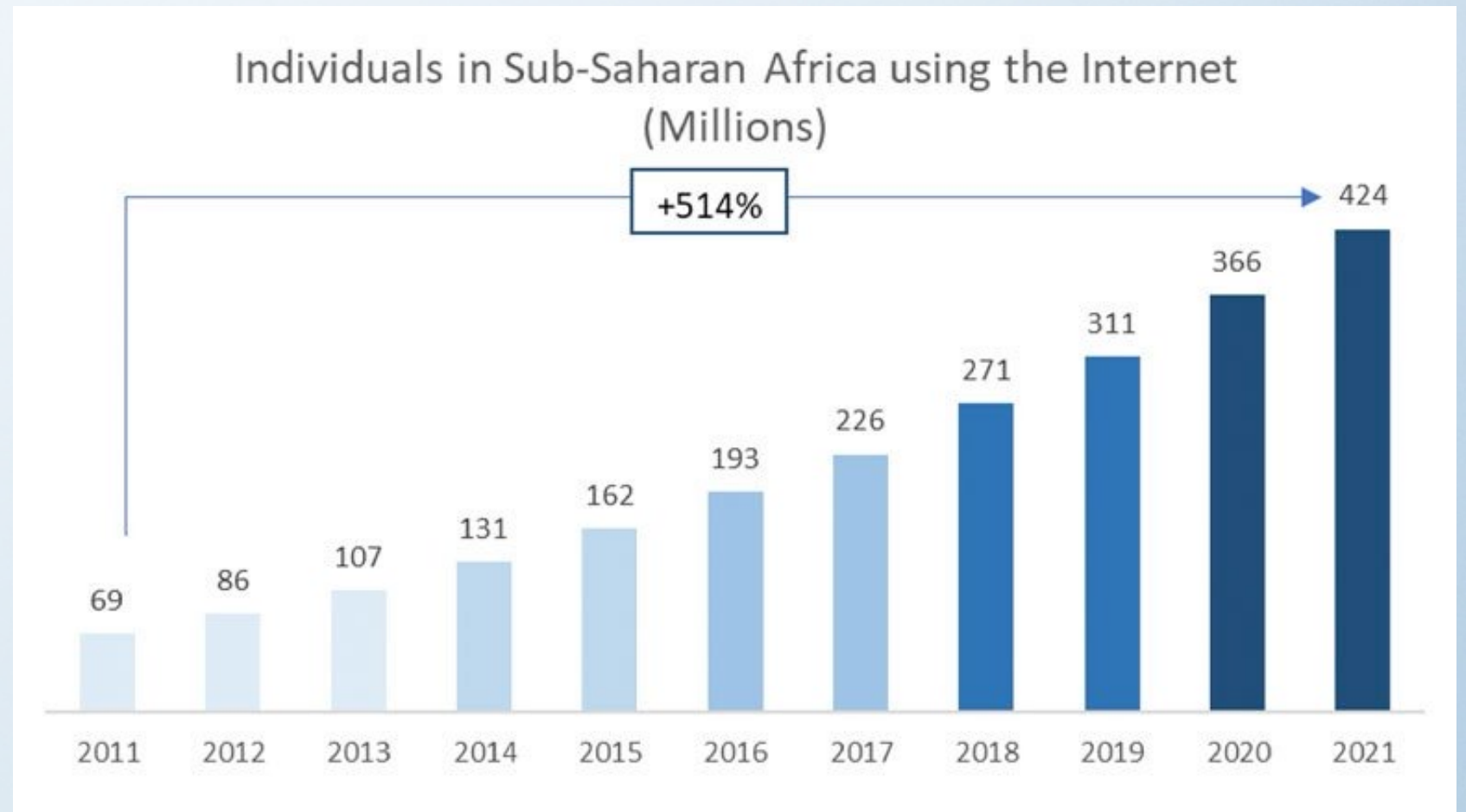
“Africa has made notable progress in the production of scientific knowledge in the past two decades, **with a total share of 7.6% of contributions to the world of science and one-third of all international publications in tropical medicine**”

Wagdy Sawahel
(2022)



Internet use is expanding

Almost every five years, internet penetration is doubling in Africa... **indicating progressive readiness for digital scholarship**



Open Access is advancing

- Growing number and sizes of Africa's institutional repositories

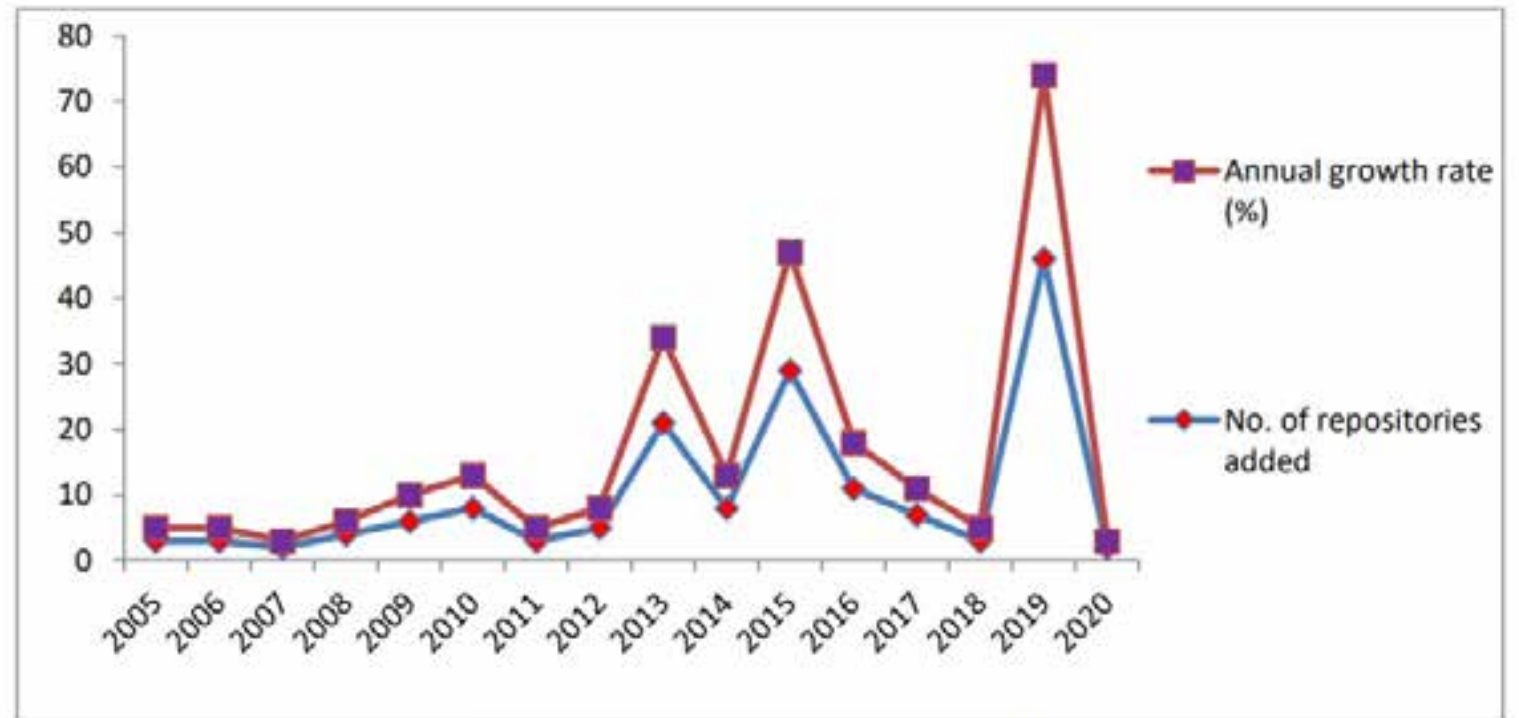


Figure 2: The year-wise growth of Irs

Preprint servers are springing up

- Enhancing research dissemination, indexing, and visibility from Africa



...And opening up opportunities to tell our own stories



ChemRxiv[®] [How To Submit](#) [Browse](#) [About](#) [News](#) 

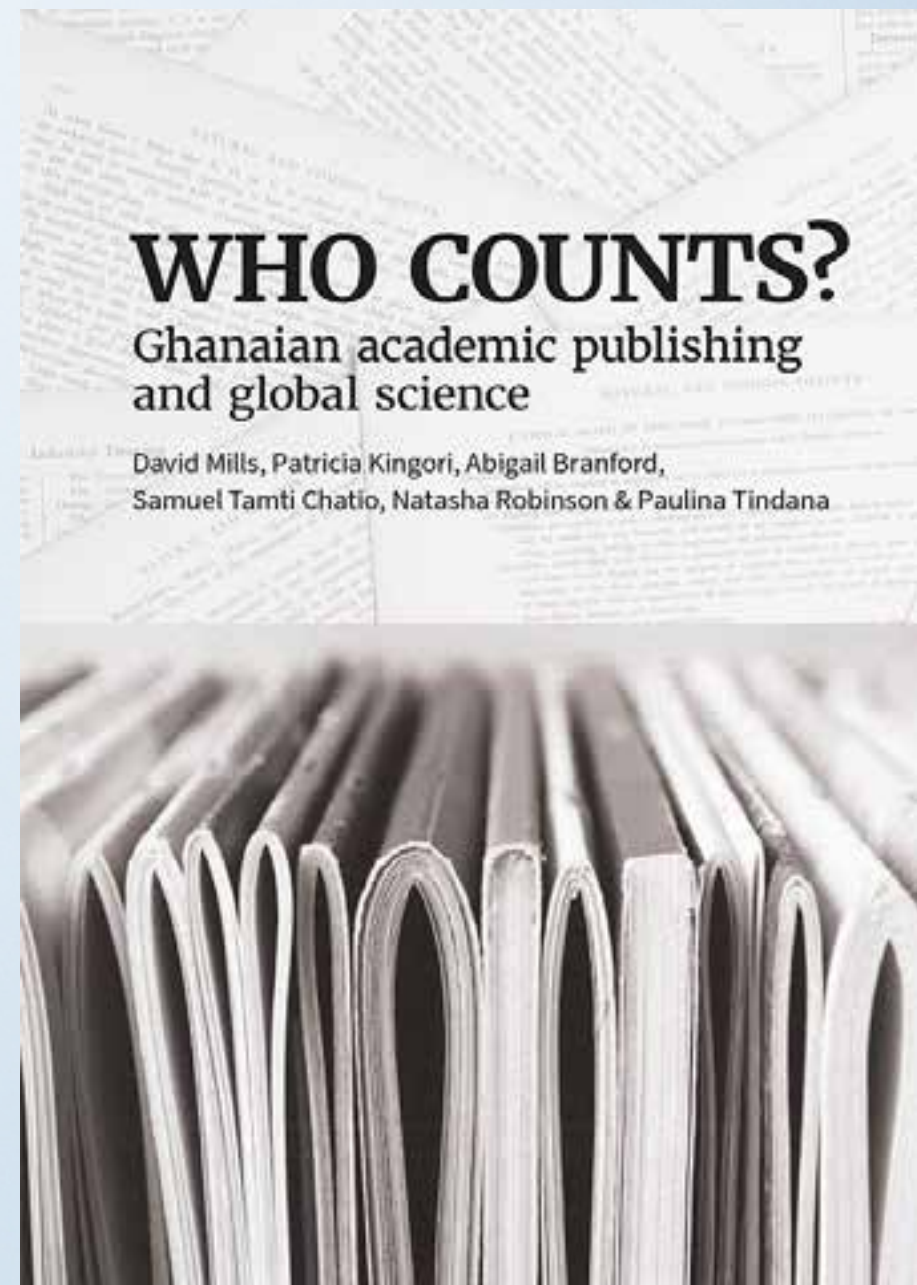
The Story of Black Scientists Born in the 19th Century

16 February 2024, Version 2

[Review](#)

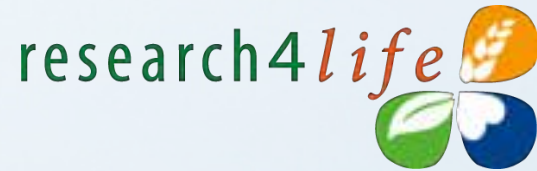
[Madeleine Joullie](#)  [Mary Pat Beavers](#), [André Shumpert](#) [Show author details](#) 

“Africans had a knowledge of astronomy, agricultural science, engineering, and medicine based on natural plant products. Although this knowledge was often more developed in Africa than anywhere else in the world, African contributions were mostly ignored by the rest of the world” -Joullie and Shumpert (2024)



Initiatives

- Promoting scholarship, building capacity, and strengthening scholarly communication in Africa



In the middle of these challenges and successes...

...We have the Library

On the Marble

Scholarship without the library is like science without the laboratory... it's a voyage in conjecture

– Biliamin Popoola

Library to the rescue

- Libraries are central to the strategic priorities of HEIs
- The support system that the library offers can hardly be matched by any other facility in academia
- The support comes in the form of:
 - collection
 - Services
 - Personnel
- The digital scholarship landscape is challenging libraries to shift gears in practices, policies and competencies

You're a Researcher Without a Library: What Do You Do?

Investigating solutions for frustrated scholars, nonprofits, independent learners, and the rest of us.



Jake Orlowitz  · [Follow](#)

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Library Collection, Africa

- African libraries understand collection building needs
- Focus has shifted from print to hybrid collection development
- Practice is considerably shifting from ownership to access
- And the local contents are now more considered valuable assets in the collection
- Collection Development Activities
 - Users need assessment
 - Creation of collection development policy
 - Budget preparation
 - Selection and acquisition of materials
 - Preservation, evaluation and weeding
 - Resources sharing and cooperative collection development

Collection Development Modes

- **Purchase**
 - ‘Just in case’ vs ‘just in time’
 - Inefficient in the long run
- **Donation**
 - Augmentation roles
 - But the materials are usually obsolete
- **Subscription**
 - Focused on digital scholarship
 - Mostly individualistic than consortial
 - Sustainability issue
- **Mediated access programmes**
 - Research4Life
 - INASP
 - SabiNet
- **Open Access**
 - Significant support
- **Local content curation**
 - Theses and dissertations
 - Repositories

Collection Development Challenges

Economic

Dwindling (inadequate) funding

Exchange rates

Geographical

Resource

Rising cost

E-resources complexities

Legal/copyright issues

Institutional

Rapidly changing users' need

Inexistent, obsolete or unused CDP

Skill/innovation inadequacies

Weak investment decisions

Mismanagement/corruption

Lack of consortium

Living CDP... a major challenge



The quality of a library is a function of the quality of its collection, services and personnel

Library services

- **Library services in Africa and variedly developed...**
 - **Signs of more development in the South than in the West**
- **Services appear to mirror the level of understanding and appreciation of the library by the user community**
- **Libraries seem to be focusing more on collection building than service provision**
- **Services are clustered around:**
 - Search and Find (Discovery)
 - Reprography and printing
 - Literature search/article request
 - Journal suggestion
 - Lending/interlibrary loans
 - Training and workshop
 - Advocacy and awareness
 - Digitisation
 - Bibliometrics
 - Research data services
 - Scholarly publishing
 - Evidence synthesis
 - Makerspace

Let's put it all together



- **Albeit slow, Africa's scholarly communication landscape is on a bullish trend**
 - and mostly outside the radar of existing bibliographic control
- **Successes can be seen, if we look closely**
 - but geographical, institutional, outlet, and individual challenges are still conspiring against scholarly communication in Africa
- **Library collection development is trailing users' preferences**
 - but is challenged by funding, lack of consortium, and CDP implementation issues

Recommendations

Individual researchers

- **Commit to ethical, infinite research culture**
- **Appreciate the need to learn, unlearn, and relearn**
- **Build, operate and transfer research skills**

Recommendations

Institutions

- Establish reputable OA journal outlets
- Institute policies that reward scholarship beyond the publish-or-perish system
- Ensure continuous capacity development for librarians to support scholarship through collection development and innovative service delivery
- Fund access to research more
- Introduce Library as a publisher scheme
- Establish OA repositories to externalize African research and data
- Revamp research and scholarly communication education
- Create, sustain, and implement living CDP in Libraries
- Establish consortiums for resource and capacity sharing among libraries in Africa

Providers (Outlets)

- **Make conscious efforts to build the capacity of African editors and publishers**
- **Provide an equitable benchmark for indexing publications from the Global South**
- **Strengthen and promote APC waivers for African authors**
- **The Diamond Open Access is Africa's surest bet at the moment**

Recommendations

Government

- Increase funding for research
- Implement social infrastructures and environments that enable research and innovation
- Provide explicit guidelines/policies on scholarship and research for development
- Create an enabling environment for academic growth and comfort

All/Other Stakeholders (Funders, Learned societies, etc.)

- **Establish African citation index to capture and connect Africa's knowledge to the global knowledge system. We need better bibliographic control of Africa's knowledge.**
- **Establish conscious research and capacity-building collaboration among researchers, and librarians, from the global north and south**
- **Establish programmes that enable low-cost access to research in the Global South**
- **Business as usual in scholarship needs to change to business as proper**

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Thank you

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