

Bridging Knowledge, Technology, and Sustainability: An Editorial Perspective on Contemporary Research Trajectories

Introduction: A Multidisciplinary Mosaic

The collection of articles presented in this issue represents a fascinating intersection of diverse scholarly pursuits, ranging from health sciences to information science, from educational technology to sustainable development. What emerges from this table of contents is not merely a compilation of disparate studies, but rather a cohesive narrative about how contemporary researchers are grappling with fundamental questions about knowledge creation, dissemination, impact, and application in our rapidly evolving digital age. This editorial examines the thematic threads that bind these contributions together and explores their collective significance for advancing scholarship and practice across multiple domains.

Theme I: The Scientometric Revolution-Understanding Knowledge Itself

Perhaps the most striking pattern in this collection is the substantial emphasis on scientometrics, bibliometrics, and research evaluation. Nearly half of the articles engage directly with the science of measuring science itself, representing a meta-analytical turn in contemporary scholarship that demands careful examination.

The Introspective Scholar: From Individual Achievement to Journal Impact

Sedam and Keshava's scientometric study of Nobel Laureate Brian P. Schmidt exemplifies the biographical approach to research evaluation. By mapping the research trends of a distinguished scientist, this work contributes to our understanding of how exceptional scientific careers develop, what patterns characterize groundbreaking research, and how individual scholarly trajectories intersect with larger disciplinary movements. The choice to study a Nobel Laureate is particularly instructive-it suggests that scientometrics can serve not merely as an administrative tool for evaluation, but as a lens for understanding scientific excellence itself.

Debdas Mondal's dual contributions represent a complementary approach, shifting focus from individual scholars to journals as units of analysis. His examination of The Journal of Learning for Development through both altmetric and bibliometric perspectives is particularly noteworthy, as it acknowledges that research impact in the 21st century cannot be measured by traditional citation metrics alone. The integration of altmetrics-tracking social media mentions, downloads, and online engagement-reflects a more democratic and multidimensional understanding of scholarly influence. His second piece mapping a decade of research in BEMS Reports demonstrates the longitudinal value of bibliometric analysis in understanding a journal's intellectual trajectory and disciplinary positioning.

Mueen Ahmed KK and colleagues' scientometric analysis of the International Journal of Pharmaceutical Investigation brings attention to a specific disciplinary journal while also highlighting the role of accessible analytical tools in democratizing research evaluation.

What has been, but that can also recognize and nurture what might be-the unexpected, the innovative, the paradigm-shifting.

Theme II: Technology Adoption and Educational Transformation in Nigerian Context

A second major thematic cluster centers on technology adoption in Nigerian educational institutions, with Kayode Sunday John Dada serving as a prolific contributor to this conversation through multiple articles.

The Technology Acceptance Model in African Higher Education

Dada's evaluation of ICT integration among Nigerian tertiary institution lecturers using the Technology Acceptance Model (TAM) addresses a critical gap in educational technology research. While TAM has been extensively applied in Western contexts, its application in African educational settings provides valuable insights into how contextual factors-including infrastructure challenges, resource constraints, and cultural attitudes toward technology-shape technology adoption patterns.

The significance of this work extends beyond mere documentation. Understanding why and how Nigerian lecturers adopt or resist educational technologies has immediate practical implications for institutional technology planning, professional development



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programs, and ultimately, for student learning outcomes. It also contributes to the broader conversation about digital divides and educational equity on a global scale.

The Social Media Paradox in Information Seeking

Dada's assessment of YouTube, Instagram, and TikTok usage for information search among undergraduate students at Lagos State University tackles a phenomenon that challenges traditional librarianship and information literacy paradigms. Students are increasingly turning to social media platforms—designed primarily for entertainment and social connection—as information sources for academic purposes.

This trend presents both opportunities and challenges. On one hand, these platforms offer accessibility, multimedia learning opportunities, and engagement with content in formats that resonate with digital natives. On the other, they raise concerns about information quality, critical evaluation skills, algorithmic filtering of information, and the potential erosion of deeper, more systematic approaches to knowledge acquisition.

The critical question is not whether students should use these platforms—they will regardless—but rather how educational institutions should respond. Do we resist this trend and attempt to redirect students toward traditional academic resources? Or do we embrace it and work to develop new literacies that help students navigate these information ecosystems critically and effectively?

Theme III: Sustainability, Libraries, and the SDG Agenda

Two of Dada's contributions shift focus to the intersection of library science and sustainable development, specifically examining green libraries and smart library applications in relation to the United Nations Sustainable Development Goals.

Libraries as Agents of Sustainable Development

The framing of libraries as contributors to sustainable development represents an important evolution in library science. Traditionally viewed primarily as repositories of knowledge and facilitators of literacy, libraries are increasingly positioning themselves as active participants in addressing global challenges—from climate change to educational equity to community development.

Dada's Article examines of a green libraries and sustainable practices in Nigeria highlights how library buildings, operations, and programs can model environmental sustainability. This includes energy-efficient buildings, waste reduction, environmental programming, and serving as community hubs for sustainability education. In resource-constrained environments like Nigeria, where sustainability is often perceived as a luxury rather than a necessity, demonstrating practical, implementable

green practices in institutional settings like libraries can have significant ripple effects.

Smart Libraries: Technology Meets Mission

The exploration of smart library applications for achieving SDGs in Kaduna State tertiary institutions extends this conversation into the digital realm. Smart libraries—characterized by automation, data analytics, IoT integration, and AI-driven services—represent not merely technological upgrades but fundamental reimagining of the library's role in the digital age.

The connection to SDGs is particularly interesting. How do smart library technologies contribute to goals like quality education (SDG 4), reduced inequalities (SDG 10), or partnerships for the goals (SDG 17)? The implicit argument seems to be that by improving access to information, personalizing learning experiences, and creating more efficient and responsive library services, these technological interventions support broader development objectives.

Critical Questions on Library Futures

However, these contributions also raise important questions about technology solutionism and sustainable development. Are smart libraries genuinely advancing development goals, or are they primarily about institutional modernization that may benefit already-privileged users while leaving marginalized populations further behind? Given the significant infrastructure and resource requirements for smart library systems, are these investments the most effective use of limited resources in developing country contexts?

Furthermore, there's a potential tension between green libraries (which emphasize reduced consumption and environmental sustainability) and smart libraries (which require significant electronic infrastructure, energy consumption, and regular technological upgrades). How do we reconcile these potentially competing visions of the library's future?

Theme IV: Visibility, Representation, and Media Dynamics

Koley and Goswami's examination of photographic visibility of Indian politicians, cricketers, and film stars in West Bengal print journalism introduces an entirely different analytical lens—one concerned with media representation, celebrity culture, and the visual economy of public prominence.

The Politics of Visual Representation

This study taps into important questions about how print media allocate attention and construct public visibility through photographic coverage. The choice to compare politicians, cricketers, and film stars is particularly revealing, as it allows for analysis across different domains of public life-governance,

sports, and entertainment—each with distinct relationships to media coverage and public interest.

In the Indian context, where cricket reaches the level of national obsession and Bollywood commands enormous cultural influence, the relative visibility of these groups in print journalism tells us much about what society values, what media prioritizes, and how different forms of fame interact with journalistic judgment.

The focus on West Bengal adds important regional specificity. India's media landscape is highly diverse, with significant regional variations in language, cultural reference points, and political dynamics. A study limited to national media might miss these crucial local dimensions.

Implications for Democratic Discourse

Beyond its empirical contributions, this work raises normative questions about media responsibility and democratic function. If politicians—those making decisions affecting public welfare—receive less photographic coverage than entertainers and athletes, what does this suggest about media priorities and their alignment with democratic ideals? Conversely, is there value in media serving as a space for cultural expression and entertainment, rather than exclusively focusing on conventionally “serious” political content?

Theme V: Specialized Knowledge Domains

Two articles address specialized knowledge domains—one in cybersecurity and one in health sciences—each bringing domain-specific expertise to broader methodological frameworks.

India's Cybersecurity Knowledge Landscape

Kishore Dey's analysis of “The Cognitive Cartography of Cybersecurity: India's Knowledge Pathways and Scholarly Networks” addresses an increasingly critical domain. As digital infrastructure becomes essential to economic, social, and political life, cybersecurity expertise becomes a matter of national importance.

The “cognitive cartography” metaphor is particularly apt, suggesting that knowledge domains have topographies that can be mapped—with peaks of concentrated expertise, valleys of underdevelopment, well-traveled pathways of mainstream research, and unexplored frontiers. Understanding India's specific position within global cybersecurity scholarship has implications for education policy, research funding, workforce development, and national security strategy.

The focus on scholarly networks is equally important. Scientific advancement increasingly depends not on isolated individual genius but on collaborative networks that span institutions, disciplines, and national boundaries. Mapping these networks reveals not only who is producing knowledge, but how

knowledge flows, where collaboration is strong or weak, and where interventions might strengthen research capacity.

Mediterranean Perspectives on Respiratory Disease

Al Masri, Saadeddine, Atallah, and Salameh's review article on chronic respiratory diseases from a Mediterranean perspective brings crucial regional specificity to a significant global health challenge. Chronic respiratory diseases—including asthma, COPD, and occupational lung diseases—represent major sources of morbidity and mortality worldwide, but their prevalence, risk factors, and management vary significantly by region.

The Mediterranean region presents particular characteristics—specific environmental exposures, dietary patterns, genetic backgrounds, healthcare system structures, and socioeconomic conditions—that shape respiratory disease patterns. A review that synthesizes existing knowledge while foregrounding these regional specificities serves multiple purposes: it helps clinicians and public health practitioners understand the landscape in their region, identifies gaps in current knowledge, and can guide future research priorities.

Moreover, chronic respiratory diseases intersect with numerous other contemporary challenges—air pollution, climate change, tobacco control, occupational health, and health system capacity—making them excellent subjects for examining how health challenges interconnect with broader social and environmental issues.

Synthesis: Convergent Themes and Future Directions

While these articles span diverse topics and methodologies, several convergent themes emerge that merit reflection:

1. The Contextual Turn in Research

Nearly every article in this collection demonstrates sensitivity to context—whether regional (Mediterranean, West Bengal, Nigeria, India), institutional (Lagos State University, Kaduna State institutions), or temporal (decades of journal history). This represents welcome maturation beyond generic, decontextualized research toward scholarship that recognizes how setting shapes phenomena.

2. Technology as Double-Edged Transformation

Technology appears throughout this collection—as subject of study (ICT in education, smart libraries, social media), as analytical tool (scientometric software, bibliometric databases), and as medium (digital scholarship, online impact). The overall stance is neither technophilic nor technophobic, but rather critically engaged, recognizing both potential and problems.

3. The Applied Turn in Academic Research

Many of these contributions demonstrate explicit concern with application—how research can inform practice in education,

libraries, health care, and research management. This represents a healthy balance between knowledge for its own sake and knowledge for use, between description and prescription.

4. Methodological Pluralism

The collection demonstrates healthy methodological diversity—from systematic reviews to empirical surveys, from network analysis to content analysis. This pluralism reflects the reality that different questions require different methodological approaches, and that scholarly progress depends on multiple ways of knowing.

5. The Global South as Knowledge Producer

The substantial representation of research from Nigeria, India, and the Mediterranean region challenges traditional center-periphery dynamics in knowledge production. These are not merely studies conducted in the Global South, but scholarship that centers Global South contexts, questions, and perspectives, contributing to the decolonization of knowledge production.

Critical Challenges and Opportunities

While celebrating these contributions, we must also acknowledge challenges and opportunities for future work:

Interdisciplinary Integration: While this collection spans multiple disciplines, there are limited explicit bridges between them. What might scientometrics learn from media studies about visibility and attention? How might library science inform educational technology about information literacy? Future work that deliberately crosses these boundaries could generate novel insights.

Theoretical Development: Several articles apply existing frameworks (TAM, scientometric indicators) to new contexts. While valuable, there's also opportunity for more theoretical innovation—developing new frameworks that emerge from Global South contexts rather than merely applying Northern theories southward.

Longitudinal Perspectives: Most articles present snapshots rather than change overtime. Yet many of the phenomena examined—technology adoption, research trends, media patterns, health challenges—are fundamentally dynamic. More longitudinal work could reveal trajectories and turning points invisible in cross-sectional designs.

Power and Inequality: While several articles touch on issues of access and equity, there's room for more explicit engagement

with power dynamics—who benefits from technological adoption, whose voices are heard in scholarly networks, whose images appear in media, who accesses quality healthcare and information services.

Methodological Reflexivity: As researchers increasingly turn analytical tools on scholarship itself, there's need for deeper reflexivity about how our methods shape what we see, what remains invisible, and what gets valued or marginalized.

Conclusion: Toward Integrated Scholarship for Complex Challenges

This collection ultimately demonstrates the richness and vitality of contemporary scholarship across diverse domains. From understanding how knowledge is created and evaluated, to examining how technology transforms education and information access, to analyzing patterns of visibility and representation, to addressing health challenges and sustainability imperatives—these articles collectively paint a picture of scholarship engaged with the pressing questions of our time.

The challenge moving forward is integration—not merely publishing alongside each other, but genuinely learning across boundaries. The scholar studying ICT adoption in education has much to learn from research on smart libraries; the researcher mapping citation networks might benefit from understanding how media attention patterns differ from scholarly citation; those working on sustainable development could engage more deeply with health scholars on the connections between environmental and respiratory health.

As we face increasingly complex, interconnected global challenges—from climate change to pandemics, from technological disruption to social inequity—scholarship must itself become more integrated, more contextual, more applied, and more reflexive. This collection represents valuable steps in that direction, while also revealing how far we still have to travel. The journey itself, however, is perhaps the most important work of contemporary scholarship: not merely producing knowledge, but understanding how we produce it, who benefits from it, and how it can contribute to more just, sustainable, and flourishing human societies.

The articles in this issue are not final answers but important contributions to ongoing conversations. They invite responses, extensions, and challenges. In that spirit of scholarly dialogue, we present them to readers for engagement, critique, and inspiration for future research that continues pushing the boundaries of what we know and how we can know it better.

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