Inclusive Global Scholarly Communication: Toward a Just and Healthier Information Ecosystem

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Inclusive Global Scholarly Communication: Toward a Just and Healthier Information Ecosystem

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Abstract

Scholarly communication has long been a central topic in the field of information science. However, philosophical, and even perhaps some legal reflections, including the moral and ethical considerations of the health of information ecosystems, are fairly recent developments. In fact, recent topics are propelled by various contextual factors including economic, disciplinary, societal norms, and cultures. This article explores literature discussing the plight of scholars in low- and middle-income countries that struggle to engage in scholarly communications in their fields. This topic has been explored for years, however, has often been addressed in disciplines outside of information science and knowledge management. This study posits that critical investigations lift this issue to one of justice and suggest a new critical lens that would rely on several existing lenses, including those developed to expand epistemic injustice, as well as exploring areas and perspectives that have not yet found their way into the mainstream literature. The analysis provides alternative approaches and discourse around democratization of scholarly communications, all towards achieving a just and healthier global information ecosystem.

Keywords: epistemic injustice, critical lenses, research and publication, knowledge production and consumption, scholars from low- and middle-income countries
Inclusive Global Scholarly Communication: Toward a Just and Healthier Information Ecosystem

Information science is a discipline that affects all other academic fields, however, scholarly communication, a key component of information science, is viewed and approached differently depending on norms of disciplines. Evidence shows that many scholars in a variety of domains are limited in their ability to actively engage with others in their fields (Canagarajah, 2002; Demeter, 2020). Several factors lead to disparities in participation in the consumption, production, and dissemination of research outputs, particularly for scholars from low- and middle-income countries (Ford & Alemneh, 2022a). Factors include, but are not limited to, economic; higher education access, infrastructure, and quality; research training and culture; language barriers (Fussy, 2019; Nakijoba & Awobamise, 2022); and as will be explored further in this article, types of epistemic injustice.

During a time when information topics abound about nefarious ailments in the field, it remains important to also investigate and reflect on who is and who is not engaging in scholarly communications across disciplines and across national borders. These investigations are needed not just when it comes to despicable or immoral activities, which warrant continued investigation, but in general, using a person-centered investigation of information behavior. Who are the scholars actively involved in consuming, producing, and disseminating scholarly outputs? Which scholars are and are not joining in the scholarly conversations in their disciplines through presenting at academic and professional conferences; publishing peer-reviewed books, book chapters, and journal articles; and participating in scholarly output management? Kidd et al., (2017) posed several appropriate questions in 2017 that still require further investigation to be more thoroughly answered.

Who has voice and who doesn’t? Are the voices interacting with equal agency and power? In whose terms are they communicating? Who is being understood and who isn’t (and at what cost)? Who is being believed? And who is even being acknowledged and engaged with?

Epistemic injustice refers to those forms of unfair treatment that relate to issues of knowledge, understanding, and participation in communicated practices. (p. 1)

Gaps in scholarly engagement exist in part due to epistemic injustice and need to be critically examined, not simply as they pertain to access to information or the ability to produce and disseminate, but rather as Hargittal (2001) explained when referencing the digital divide over two decades ago, investigating and exploring dimensions that have to this point remained hidden. In this paper, discussion will include what epistemic injustices are, and why the injustices scholars experience should be categorized as such. Discussion will also include examining different types of epistemic injustice, including distributive and discriminatory; and suggestions will be made about areas that need further exploration through a currently developing global critical lens that expands the understanding of both
categorized and uncategorized injustices affecting scholars working in low- and middle-income countries.

Presented evidence will demonstrate epistemic injustices, or injustices that detract from individuals’ and groups’ knowledge credibility and their ability to communicate their knowledge and experiences (Fricker, 2007). These include injustices experienced by scholars due to the management systems of mainstream academia and highly esteemed publishing organizations, systems containing overt and covert biases. Demeter (2020) argues “that the world system of global knowledge production (which includes the publishing industry and higher education) is a highly exclusive, hegemonic system” (p. 75). One main premise is that academic knowledge, and in effect the producers of such knowledge, are deemed credible and valued only when their approaches, methods, and findings are filtered through a Western or high-income cultural lens and that the exclusion of scholars diminishes the health of the overall ecosystem.

Demeter (2020) in his book, Academic Knowledge Production and the Global South: Questioning Inequality and Under-representation, provides numerous empirical studies that discuss the imbalances in publications within different disciplines that lead to a limited worldview and lack of “geopolitical diversity” (p. 89). Dotson (2012) cautions that when individuals and groups of people are not allowed to contribute to their communities (in the case of scholars, their communities could be their disciplines), that this situation, “damages not only individual knowers but also the state of social knowledge and shared epistemic resources” (p. 24). Even though the focus is on the injustices, it is critical to remain aware of the ramifications of knowledge loss and gaps in bodies of knowledge in disciplines due to the lack of a truly global perspective. An epistemic injustice lens helps begin to identify the phenomenon; however, a new critical lens will allow a more comprehensive investigation of the global situation.

When looking at the suggestions of Tang et al. (2021) about a paradigm shift in the field of information science, it is critical to consider the four areas they suggested: why, what, who, and how. The discussion in this article will address certain aspects of all four. First, in the why area we will explore elitist aspects of scholarly communication. Second, in the area of what, we explore the aspects of social and cultural contexts, as well as aspects of diversity, equity, and inclusion. Thirdly and lastly, we examine who and how voices are and are not being heard in scholarly communication through the use of critical perspectives. The focus of this article, the socio-cultural ideal that scholars from low- and middle-income countries experience injustices, lends itself seamlessly to these four areas. Scholarly communication is an information landscape that requires further consideration. “Information landscapes are shaped by social and discursive practices, epistemic modalities, imbued with symbols, value, and artifacts that bound and define these spaces and membership including insiders and outsiders” (Oliphant, 2021, p. 957). We posit that benefits will be experienced from additional research inquiries at organizational and
individual levels and extending to inquiries across disciplines or fields of study. At organizational or even national levels, and at the levels of disciplines, the effects of injustices could be assessed as obstacles for advancement and growth. At the individual level the psychological effects of the injustices could be examined through motivational lenses or lenses of well-being. These diverse areas of research conducted with an emerging critical lens, based in large part on epistemic injustice, will all contribute to a clearer picture of the current state of global scholarly communication and the effects being felt by scholars working in low- and middle-income countries, as well as avenues for alleviation of inequities.

What are Epistemic Injustices?

At this point in history, the lens of epistemic injustice may be the best available to examine this phenomenon, therefore, we will focus on this lens and what can be identified using it, then we will revisit why a novel lens will further this work. Epistemic injustices are related to knowledge and encompass many different social arenas such as commercial or business, judicial, healthcare, and education. Fricker (2007) posits epistemic injustice falls between ethics and epistemology and she defines it as “a wrong done to someone specifically in their capacity as a knower” (p. 1). These injustices occur when a person, or group of people, experience a lack of credibility as knowers or communicators of knowledge or experience. In this paper the injustices being examined and discussed are those experienced by scholars from low- and middle-income countries when they attempt engagement with scholars globally.

These injustices occur as distributive or discriminatory. Distributive injustices in scholarly communication include a diminished ability to access research outputs through traditional distribution channels. These channels are mainly through academic library subscriptions limited in large part by the financial constraints of institutional budgets. Initiatives such as Open Access (OA) work to alleviate the disparities in access and eradicate distributive injustices. OA is supported with the belief that knowledge should be available to all as a human right (Alemneh, 2022; Roh et al., 2020), and that OA makes academia a more just enterprise through equitable access (Ford & Alemneh, 2022b; Nobes & Harris, 2019).

Examples of current discourse on OA occurred at the most recent 3rd United Nations Open Science Conference (2023) where the urgency of utilizing open research to accelerate societal progress toward sustainable development was highlighted. This theme was evident in the remarks of Csaba Körösi, President of the UN General Assembly, who said that “Sharing our knowledge on open-access, online platforms will only be detrimental to those who do not want a just and fair world” (United Nation, 2023). It was further echoed in presentations throughout the event by members of the open research community and high-level representatives from the UN. Although work to promote OA is
exceedingly important and applies to *distributive* epistemic injustices, it does little to alleviate *discriminatory* epistemic injustice which is closer to the focus of this paper.

Discriminatory epistemic injustice is often divided into testimonial and hermeneutical. Testimonial injustices happen when a hearer or reader has a decreased view of the credibility of the speaker or writer based on some stereotypical prejudice (Fricker, 2007). Hermeneutical epistemic injustice happens when the tools or language used by the speaker or writer to describe knowledge or social experiences is not comprehended or seriously considered because the hearer or reader are unable or unwilling to use the tools or language necessary because these tools or language are not considered conventional (Fricker, 2007). The speaker or writer in these cases suffers an injustice because they are unable to participate in generating the shared knowledge due to a lower social standing than those with a higher standing who are readily accepted as generators of the knowledge everyone is expected to share. Fricker (2007) sees hermeneutical injustices as unintentional, however, others including Medina (2017) would disagree with her and have posited that responsibility is either individual or collective. Further examples of both testimonial and hermeneutical injustices will now be discussed.

Arcila-Valenzuela et al. (2022) argue that testimonial injustice is an often-undetectable phenomenon. An example of testimonial injustice that often goes undetected by those in power and is yet experienced by scholars from low- and middle-income countries, occurs when these scholars try to publish novel findings and their findings are questioned based on prejudices (Dotson, 2012). Prejudices occur due to geopolitical standing or institutional affiliation. Reviewers of scholarly manuscripts may not purposefully and blatantly reject documents from scholars outside of core countries or core institutions, however, they may use standards and guidelines to justify rejections disguised as concerns about the depth and breadth of the knowledge or the research methods employed. However, if the submitting scholars are held to standards that cause them to remove social contexts, or these same standards are not also enforced with their counterparts, this unfair treatment could be defined as testimonial injustice.

In academics, testimonial injustice can lead to hermeneutical injustice by structuring what is or is not included in the body of knowledge within disciplines. When knowledge is included, it is promoted as valid, when knowledge is excluded, it is deemed not worthy and further defines the value of how experiences can and should be defined, leading to hermeneutical frameworks that are acceptable and those that are not. “People are hermeneutically marginalized when they are denied full participation in social experiences and where their social experiences are obscured by the collective” (Oliphant, 2021, p. 953). One example of hermeneutical injustice provided by Fricker (2007) was the lack of a way for women to explain uncomfortable or even dangerous situations in their workplaces prior to the term
‘sexual harassment’ being coined and used for situations where women felt hassled simply because they were women. Just as the creation of the term ‘sexual harassment’ and the policy changes put into place since its inception have drastically changed working conditions around the world, proper understanding and labeling of the phenomenon of scholars in low- and middle-income countries, would not only identify the problem, but empower the process of transformation. This could allow for clear and bold discussions that may lead to policy change and an avenue to equalize scholarly communication globally.

Medina (2017) states that “hermeneutical harms can run so deep as to annihilate one’s self, so as to produce hermeneutical death” (p. 41). In academia this could mean certain studies are never conducted, and for some studies that are conducted, the results or findings never find their way into the body of knowledge.

Part of the nature of hermeneutical injustice is that it will be hard for people—especially those with more privileged social identities—to notice where there are gaps in their collective understanding. Rather, the basis for this injustice is exclusion of marginalized groups from the collective meaning-making process. Wherever groups are denied the opportunity to articulate their experiences, be heard by others, and reach new collective understandings, the situation is ripe for hermeneutical injustice. (Sherman & Goguen, 2019, p. 6)

Several aspects of injustices both testimonial and hermeneutical that make them specifically epistemic in nature include the **disadvantage condition**, the **prejudice condition**, the **stakeholder condition**, the **epistemic condition**, and the **social justice condition** (Byskov, 2020). The first two, the **disadvantage** condition (individuals and groups of people suffer disadvantages from the injustice) and the **prejudice** condition (unfair feelings or beliefs exist about the individuals or groups of people trying to communicate), are explicitly discussed by Fricker (2007) according to Byskov (2020), however the others are not as clearly defined in Fricker’s foundational work on epistemic injustice. The third condition, the **stakeholder condition** requires that individuals must somehow be affected by the exclusion of their knowledge. The fourth, the **epistemic condition** requires that the individuals possess knowledge that is being denied. Finally, the **social justice condition** requires that the individuals are also suffering from other social injustices.

Although Byskov states that not all the conditions need to be met, it will be posited later in this paper that the injustices scholars from low- and middle-income countries face, do indeed meet all five of these conditions. Questions about other aspects of scholars’ experiences should propel further inquiry; inquiry that would lead to the suggested new lens. In the next section, a closer connection will be drawn between epistemic injustice and the current state of global academic engagement for scholars in low- and middle-income countries.

**What is Known About Epistemic Inequities in Scholarly Communication**
Evidence shows that scholars in low- and middle-income countries are not engaging at the same levels in scholarly communication as their counterparts in high income countries (Demeter, 2020). The number of research publications from scholars in low- and middle-income countries lag behind the number from scholars in high income or developed countries (ANIE, 2018; National Science Foundation [NSF], 2021; Wood et al., 2023). In addition, many of the outputs from researchers in low- and middle-income countries remain local or regional and are not being disseminated globally (Wood et al., 2023). As noted by Canagarajah (2002), the dominance of Western conventions in scholarly communication leads directly to the marginalization of the knowledge of scholars not coming from a Western context. This is a type of metaphorical siloing that keeps researchers from interacting with each other and allowing research to build a cohesive body of knowledge in several fields.

Studies involving epistemic injustices outside of scholarly communication are also helpful for understanding what is occurring with scholars. Bacevic (2023) focuses on inequities based on gender, race, and ethnicity, but does discuss the “informal practices of judgement or evaluation that link the identity of a ‘knower’ with the value of the knowledge they produce” (p. 1123). Koch (2020) discussed how local participants are not valued when they are receiving development aid. In other words, the workers viewpoints, workers from other geopolitical locations and contexts, are more valued than those native to the context and the very recipients of the aid. Bessen (2022) examines global health funding to discover ways to reduce inequities experienced by individuals and groups from the ‘Global South’ and how to amplify the voices of those most impacted by the research, as opposed to the voices of those from the ‘Global North’ having more volume and influence. Whereas, these three researchers are not necessarily focused on scholars, their insights are helpful in investigations about inequities due to prejudice, location, and context.

Quantitative findings identify a lack of access and a lack of outputs from scholars who find themselves working outside of the core research contexts such as North America, Europe, Australia, and other high-income countries (ANIE, 2018; Amarante et al., 2021; NSF, 2021). Disparities also exist in representation on peer-reviewed publication editorial boards, in the amount of time papers take for review, and in the number of citations (Liu et al., 2023). Demeter (2020) explains that some scholars working in core countries are also kept on the periphery due to lack of prestige of their institutions or the process of ‘elitism.’ He also argues that there are countries that are considered core even though they are geographically in the periphery, and he uses Israel as an example. Demeter (2020) further argues that some countries are even left out of the discussion altogether because they do not fall clearly into either the core, or high-income, or the periphery, or low- and middle-income categories.

Using the U.S. as an example, one could argue that even though the country is clearly a core research country, there are periphery institutions (Demeter, 2020). The chances of scholars from lesser-
known institutions receiving grant funding and having their research make an impact in elite journals are much lower than their counterparts at well-known and highly esteemed R1 institutions. Scholars that find themselves at a “periphery within the center” institution (Demeter, 2020, p. 4), may also experience exclusionary injustices and additional obstacles when attempting to join in scholarly communication. Some of these scholars may not ever become what are considered esteemed, and some may find their way into the conversations only by leveraging social capital or personal finances, or by a list of other available resources based on their geographic position within a core country. Their counterparts in low- and middle-income countries may not have similar social or financial options to navigate the obstacles to their personal advancement. Examining the additional obstacles of scholars who find themselves on the periphery within the core is another aspect of research that needs to be pursued, however, the current focus of this article is on the global situation and specifically, the experiences of scholars in low- and middle-income countries contexts.

Conditions of Epistemic Injustice

Now that we have discussed what is known about the current state of scholarly communication, we will revisit the conditions of epistemic injustice as espoused by Byskov (2020) and argue that scholars in low- and middle-income countries meet all five: disadvantaged, prejudice, stakeholder, epistemic, and social justice. Scholars who find themselves working in low- and middle-income countries meet the disadvantaged condition in several ways with the most prominent being the lack of access to research outputs, mentioned previously (Fricker, 2007; Ford & Alemneh, 2002b). The prejudice condition is met when scholars experience testimonial epistemic injustices by having their research outputs lack credibility based on their identity or geopolitical location and not necessarily lack of quality (Dotson, 2012; Fricker, 2007). The stakeholder condition occurs when the research that would advance individual careers, and even disciplines and fields is not embraced and promoted, causing direct effects on individuals and groups who are clearly stakeholders on the matters they are trying to advance (Demeter, 2020). The epistemic condition is clearly met when researchers have conducted high quality research that is not accepted as credible, even though findings will advance the field (Ford & Alemneh, 2022a). Finally, the social justice condition is met by many scholars in low- and middle-income countries as they are experiencing additional injustices based on their geopolitical locations (ANIE, 2018; Roh et al., 2020). The newly suggested lens would allow for a clearer framework to articulate the situation and promote positive movement forward with equity.

What We Know About (the Potential) Factors that Propel Inequities

The world is fast changing, progressing from the hunting society through the agrarian society, the industrial society, and the information society and now to society-5.0. The society-5.0 is characterized as hyper-connected and increasingly complex, with the expectation that digital
transformation will be combined with the creativity of a diverse and super-smart society to satisfy individual needs, solve problems, and add value that previous societies were unable to accomplish (Nakanishi, 2019). However, just as in a physical environment, human ill-treatment, and division of equity in the digital environment are pressing policy concerns around the world. Researchers and experts in the field (Fauzi et al., 2020; Gates, 2023) argue that the best opportunity for reducing inequities is to improve education, which highlights the critical role of helping all scholars achieve their potential, but also supporting active citizens who can help build more sustainable, equitable, and resilient societies. These require equitable engagement in scholarly communication.

Infrastructure is a big contributor to inequities in many parts of the world, which is evidenced by a discernible and growing gap between developed and developing nations’ Internet connectivity. As research and scientific inquiry depend on both the availability of heterogeneous resources from multiple sources and their openness to easy and continued access, addressing the universal access issue is paramount. Alemneh and Hastings (2006) argued that although the use of technologies provide new directions for scholarship, there are discrepancies among nations and regions. In many low- and middle-income countries, digital resources and intensive data use practices, as well as existing infrastructure to support scholarly communication are limited. According to the most recent (2023) OECD broadband statistics update, high-speed fiber has become the primary fixed broadband technology in half (19 out of 38) OECD countries, with Korea, Japan, and Spain seeing the highest fiber penetration rates in the OECD at 87%, 84% and 81%, respectively. However, the picture in low- and middle-income nations is very different, and many scholars in these contexts are still unable to work successfully online (OECD, 2023).

An example of this can be provided by highlighting the conditions in African countries, which are predominantly low- and middle-income. Based on analysis of publicly available data from Cisco index of readiness score and Broadband speed ranking, Assefa et al. (2021) indicated that African countries’ digital readiness score is below the global average of 11.96, on a scale of 0 to 25. Similarly, African countries’ broadband speed is way below the global mean speed of 25Mbps (mean speed of 4.51 and 3.80 Mbps for sub-Saharan Africa and North Africa, respectively).

Setting aside infrastructure barriers, additional factors propel iniquities in scholarly communication at individual levels, organizational or institutional levels, and management system levels. “Unfair and unjust communicative structures, institutions, and practices have the potential to reproduce and further exacerbate existing socio-economic inequalities and injustices” (Byskov, 2020, 1).

At each of these levels are factors that can be interpreted as intentional and those that are more than likely unintentional. At the individual level where acceptance or rejection of proposals takes place, where promotion of scholars takes place through citations and quotations, and where selection of collaborative partners takes place, decisions are affected by beliefs. When implicit biases are at work,
there might not be malicious intent, however, the damage is still being felt by those excluded from engagement.

At the organizational or institutional level, where scholars are admitted or denied admission to programs or faculty positions, where scholars are being funded or not funded to conduct the research that will not only propel personal careers, but also advance academia, where in general scholars are either supported or not supported in their pursuit to engage, decisions are being made (Demeter, 2020). Whereas these decisions may have individual components, most organizations and institutions have systems in place that distribute the power for the decisions to a committee that follows certain steps and protocols. These procedures, if not assessed specifically for biases, can contain elements that exclude individuals that differ from the dominant group and therefore perpetuate injustice.

At the management or system level in scholarly communication, current environments demonstrate discriminatory epistemic injustice when they do not appear to value ways of thinking, processing, and articulating data and ideas that represent worldviews and experiences that differ from that of core researchers or researchers typically located in high-income countries. As Liu et al. (2023) discussed, certain groups of scholars experience longer wait times for peer reviews and are not represented equitably on editorial boards. If the very scholars experiencing injustices are not invited or welcomed to be a part of the management of publications, they are metaphorically being excluded from the discussions about their inclusion. Dübgen (2020) discusses how some scholars do not have a voice in the research around the very injustices they experience. If the systems and processes stay the same, then the same situation is maintained, affecting individuals and more broadly, bodies of knowledge.

In addition to the individual and collective factors where epistemic injustices occur, it is important to also look at metrics as they represent the capital of academic careers. Metrics have socio-political implications in research evaluation and can perpetuate epistemic injustices (Ma, 2022). The use of metrics encourages a competitive research culture encouraging systemic inequalities that suppress the visibility and credibility of outputs by minorities. Metrics foster competition between individuals and institutions through benchmarking, ranking, and creating hierarchies (Ma, 2022). These can create a false sense of value by creating productivity targets rather than the target being the advancement of science. Metrics lead to epistemic injustice by deflating levels of credibility to individuals and works that are ranked "low." This means scholars working on new, controversial, or marginal topics can have works deemed lower quality and of lower significance, often affecting funding possibilities for research (Ma, 2022). After examining several of the factors propelling injustices, we now move to the emerging influence of artificial intelligence (AI), as elements of this transformational technology may further exacerbate the problem.
Society is increasingly affected by AI and algorithms, and it is critical to understand how information science and scholarly communication are impacted. Algorithms are a large part of the functioning of search engines for peer-reviewed literature. Researchers need to be aware that there may be literature excluded from their searches depending on the design of the algorithms and the data training them. “(A)lgorithms cannot be separated from the social world, because the creation of code is not without reference to social power and position” (Lloyd, 2019, p. 5). It is important to consider who is writing the code that guides the algorithms and where they are situated in the social order, particularly in reference to researchers from a variety of geopolitical positions. Lloyd (2019) reminds us that the coders of such algorithms have conscious and unconscious biases that affect how they create these aspects of search engines and if unexamined can influence whose work is seen and therefore referenced and whose work is left out of the searches and therefore not referenced. It is also critical to understand that AI algorithms are based on data, therefore biases represented in data are evidenced in the outputs. Since inequities exist in scholarly communication, with the data already skewed in favor of predominant researchers, injustices may be perpetuated or even multiplied.

Search engines, which were established based on the traditional information retrieval methods, continuously add other tools and algorithms for improvement. The synergies of numerous emerging trends and the development of AI models are shaping and significantly transforming scholarly communication in general. In his recent notes, Bill Gates (2023) argues that AI is going to empower people in incredible ways. We would ask in the area of scholarly communication, which people are being empowered? With time and with dedication to improve the technology, AI will only get stronger, and despite AI’s potential to make the world more equitable, unless we ensure that it benefits everyone, the possible impact and unintended consequences could aggravate, instead of reduce, inequities. The new lens being proposed will require more in depth understanding of the current and emerging effects of AI on perpetuating and even creating new inequities.

**Potential Pathways for Alleviation**

Increasingly, academic institutions recognize the lack of diversity, equity, and inclusion in scholarly communication and advocate for change. The Office of Scholarly Communication at the University of California recently announced the launch of its new Diversity, Equity, and Inclusion in Scholarly Communication resource and can be cited as a trend indicator of library initiatives providing resources to assist their respective communities in navigating the complexities of an ever-evolving landscape for sharing and publishing scholarly research (NASIG, 2017; University of California, Office of Scholarly Communication, 2023).

As with many societal or global changes that are initiated to create a more just situation, there are both individual and organizational level steps that can be taken to equalize the involvement of
scholars from low- and middle-income countries to the level of their high-income counterparts. While a comprehensive list would be outside of the scope of this article, a few ideas will be introduced here. The authors are working on a book chapter that will further explore what individuals and organizations can do to abolish the inequities, however, with the items introduced here scholars can begin the work immediately within their realms of influence.

In addition to research and analyses of factors and metrics that would further an understanding of the injustices occurring (such as availability of adequate infrastructure; last-mile connectivity to homes and schools), there are things individuals and institutions can do immediately to change the playing field for scholars globally. As in many areas of life, to cause individual change, particularly sustained change, people can begin with self-reflection. Being self-reflective about how one views scholars in different geo-political situations could help change behaviors as awareness grows about one’s position and influence and expand one’s views to attempt to see through the perspectives of others. Along with reflection, individual scholars can review and revise their curricula, paying particular attention to including scholars from outside of their countries and contexts. This would promote inclusivity by amplifying the work of marginalized scholars. College and university leadership could encourage individual actions by their faculty and could provide professional development on strategies and methods. Leadership could also challenge the norms by embracing marginalized scholars, genuinely including them in collaboration and partnership discussions.

In addition to elevating the work of scholars from low- and middle-income countries, individuals in leadership of scholarly publications, such as publishers and editorial staffs could include scholars from low-and middle-income countries in the management of journals. Most academic publishing houses are in Western countries (Demeter, 2020), and might benefit from the perspectives of scholars who are not. When it comes to academic associations or societies, welcoming scholars into membership, welcoming them to participate on boards, committees, and conference planning could go a long way in the efforts to allow these scholars to be a part of the conversations in their disciplines. In the next section, avenues of future research will be introduced and discussed and will be followed by revisiting how a new critical lens would advance this future research.

**Future Research**

In this section, many ideas for future research will be introduced, including the idea of conducting grounded theory research to provide the data necessary to establish a usable critical lens to then advance research even further. Several injustices have been discussed in this paper, however Pohlhaus (2017) and Medina (2017) appropriately caution researchers and social justice advocates to avoid attempting to make an exhaustive list of injustices, because doing so would close out the identification and definition of those yet unknown forms. We are working to identify a new form with
the specific focus on scholars in low- and middle-income countries. At the end of this section, we will
discuss how grounded theory research could help identify, understand, and define these specific
injustices.

First, we will discuss other areas of future research that would also add to understanding both
the factors causing these injustices, and the effects the injustices have on not only the affected scholars,
but also on disciplines and society. Evidence supports the benefits of incorporating diverse views or
voices in science and in research, however, the list of benefits needs further exploration (Page, 2017;
Sulik et al., 2022). Just as the gatekeepers, barriers, and obstacles vary across disciplines, the benefits
likely do as well. Studies need to be conducted in specific disciplines to explore both the negative effects
of these injustices as well as the positive effects when a wider range of scholars are actively involved in
research and dissemination of research outputs. More studies could be conducted investigating areas of
big data, impact factors, the equity of order for authorship, and in general the power dynamics
experienced when attempting to join scholarly conversations through the presentation or publication of
works.

Page (2017) in his book, Diversity Bonus, explains how several fields are advanced when
cognitive diversity exists in teams. He explains that each person has a certain repertoire of skills and
knowledge, and the diversity bonuses are felt when those repertoires have limited overlap. Imagine a
group of researchers that are all from analogous geopolitical situations and are all trained at a few
similar universities, and then imagine a group of researchers who come from all over the globe and have
been trained in universities as diverse as their locations. Each of these researchers has the potential to
bring unique knowledge and skills based on their unique life experiences and the unique training and
education they have received during their experiences as students and as faculty members. It does not
make sense to maintain homogeneous experiences and ideas in research and yet expect innovative
advances. Individuals and groups of people with differing perspectives and experiences bring identity
and cognitive diversity to the table and often contribute diversity bonuses to teams attempting to
problem solve or find solutions to complex tasks (Page, 2017). McBrayer (2024), discusses how
ideological diversity creates epistemic benefits that increase ways of answering questions and solving
problems.

Evidence also shows that epistemic injustices can stunt individual courage and thus
development, however, much remains unknown about the “internal and external factors that shape
both speakers and hearers” (Oliphant, 2021, p. 959). Once an appropriate critical lens has been
established (more on this discussion in the next section), studies could be conducted that would
examine individual level factors through the combined lenses of that critical lens and an established
theory of motivation. One such psychological or motivational theory could be self-determination theory
SDT (Ryan & Deci, 2017). SDT would allow for the identification of individual factors that cause frustration, thwart motivation, and negatively affect well-being when these scholars are met with undue oppositions as they try to attempt to consume, produce, and share scholarly outputs. The lens of SDT, could specifically examine how basic psychological needs (autonomy, relatedness, and competence) are affected (Ryan & Deci, 2017). Autonomy, or the ability to make choices and have volition of one’s actions and decisions, is hindered for many scholars who lack access to scholarly outputs and are unable to conduct and share research based on intentional or unintentional obstacles. The need for relatedness is frustrated for many scholars who are shut out of research communities, creating an inability to form high quality relationships that are critical for meeting this need and generating new knowledge. In addition, many scholars do not experience positive feelings of competence or being capable, as they are made to feel inferior by the injustices they encounter when trying to share their scholarship and engage with other scholars. The link between inequities in access to scholarly outputs and SDT was introduced by Ford and Alemneh (2021), however, could be expanded with empirical inquiries.

One of the authors is engaging a grounded theory study with several scholars in low- and middle-income countries, collecting data directly on the phenomenon of being a scholar from a geopolitical position outside of a high-income country. The exploration will be centered on the experiences and perceptions of the scholars and will work to give voice to the scholars most affected by the injustices under study. Through this study, the theoretical underpinnings of the novel critical lens are being developed.

Grounded theory research used to establish new theories and theoretical frameworks (Creswell & Poth, 2016). This methodology would allow the researchers to set aside current hypotheses and require awareness of any biases another lens or framework might cause, requiring them to bracket their beliefs and biases about this phenomenon. This might mean the researchers have to specifically set aside their understanding of injustices during data collection and analysis. Qualitative data collected using grounded theory methods of interviewing, observing, and document retrieval would provide the data necessary for a thorough analysis of the phenomenon. This data would be analyzed using open coding, axial coding, and selective coding to allow the frameworks necessary to make sense of this phenomenon to emerge naturally from the real-world experiences of the scholars themselves in addition to the evidence provided by the quantitative data. This would allow the development of a multifaceted and composite framework grounded in the data.

In addition to the research previously suggested, the following is a brief list of additional questions that still need exploration. Are there certain disciplines that the lack of ability to engage in scholarly communication contributes to the brain-drain? Do highly talented scholars leave academia due to the frustrations they experience? What are the individual psychological effects on scholars
experiencing these injustices? What are the myriad ways research is stunted due to lack of communication between researchers in a variety of contexts? What are the benefits experienced in disciplines and fields of research when scholars from diverse geopolitical positions effectively and judiciously work together contributing unique cognitive diversity, ideological diversity, and life experiences? These questions may be better addressed with a new perspective or lens.

Why a New Critical Lens Could be Helpful

After examining the state of injustices and the incomplete benefits of using available lenses or frameworks, including the critical lens of epistemic injustice, the discussion will turn to the importance of a new critical or theoretical lens. Niederman and March (2019) discuss the importance of researchers being clear on how any theory or lens is being used within each research study as they can be treated drastically different across disciplines and even nuanced differences can impact interpretations and analyses. A simplistic example of this is that theories are tested in natural sciences using hypotheses, and theoretical lenses are often used in social science to provide frameworks to large amounts of data. We are positing a lens or framework to help make sense of the experiences of scholars from low- and middle-income countries, and not proposing a new theory.

Using ideas shared by Nordberg (2023) that the metaphor of lenses is used to either adjust, correct, distort, or to ‘augment some aspects [...] by suppressing others’" (p. 5), we are positing a lens to adjust or correct how the experiences of scholars in low- and middle-income countries are framed and articulated and possibly allow for a new hermeneutical heuristic. Just as other critical lens help make sense of the experiences of marginalized communities, this proposed lens would work towards making sense of the unique and specific experiences of scholars when they are attempting to engage in scholarly communication within their disciplines. Niederman and March (2019) state, “using a theoretical lens as a transformative or filtering device allows one to illuminate relationships that a kind of information overload that comes from too many undifferentiated details might otherwise mask” (p. 5).

Demeter (2020) also makes a clear argument that the discussion around the phenomenon needs to be assessed from a different vantage point.

From an ethical point of view, we should consider whose ethics we should follow when discussing global inequalities in knowledge production. What is typical in any field of society is that the members of the hegemonic group are considered normal and prototypical, while the members of the oppressed group are described in terms of their observable deviations from the prototype, which always involves some form of devaluation. We can see exactly the same phenomenon in the world of knowledge production, where scholars and gatekeepers at elite centers so often talk about international, global standards in both education and the publishing
industry, emphasizing the normative character of these standards, while they are actually standards of certain capitalist Western countries, typically those of the United States. (p. 78-79)

Existing critical lenses center individuals and groups of marginalized people, therefore, a critical lens that centers scholars from low- and middle-income countries experiencing the aforementioned injustices could drastically advance understanding and allow language to be established that would define and explain the profound challenges they face when engaging in their professions. The new perspective and knowledge gained could have a positive impact not only on the affected scholars, but on others that will benefit from these scholars’ contributions, adding their unique skills and knowledge bases to the community of scholars in their fields. Under the current paradigm, evidence points to a scenario where scholarly outputs not deemed worthy of a Western audience are siloed in regional publications and not indexed to be globally discoverable (NSF, 2021; Wood et al., 2023). A critical lens specific to these situations might inform global stakeholders to engage in efforts to reduce and alleviate injustices and tear down the silos keeping outputs from affecting global change.

Oliphant, T. (2021) suggests viewing people as epistemic agents, as “knowers, speakers, listeners, and informants.” as opposed to simply as users of information (p. 951). She further explains that the study of information science will benefit from approaches commonly used in social sciences “placing people at the heart of LIS inquiry” (p. 951). A critical lens that examines this important aspect of information science could vastly improve the health of the overall ecosystem, disrupting the current paradigm.

The concept of epistemic injustice provides a lens to: examine the prejudicial credibility judgments we hold as individuals; understand what responsibilities we have for updating beliefs in light of new or counter-evidence; consider the ways in which people are harmed or exalted and everything in-between in their status as knowers, speakers, and informants; and take seriously our own responsibility as listeners.” (Oliphant, 2021, p. 952).

Empirical research, using a critical lens designed to center scholars from low- and middle-income countries, would provide findings not discoverable or articulated well with the current cadre of lenses. The current lenses help, however a new lens designed specifically based on the perspectives and experiences of scholars in low- and middle-income countries could drastically and positively change the conversation, actions, and landscape of scholarly communication management, as well as advance disciplines currently hindered by the separation of research outputs. Reducing or preventing these inequities in scholarly communication would mean that the work of scholars from low- and middle-income countries would be deemed credible and therefore also be valued, reducing systemic barriers and creating a healthier information ecosystem.

Conclusion
The epistemic injustices that occur when scholars without a Western worldview are not recognized as valid knowers and clear communicators affects individuals, institutions, disciplines, and at times even the development of nations. These effects need to be better understood and disrupted for the benefit of all. Recognizing the untapped tacit knowledge of scholars in low- and middle-income countries, will not only reduce or eradicate injustices, but will also expand recorded knowledge and experiences to enhance and add to bodies of knowledge across academic disciplines. Looking at ongoing initiatives and human solidarity at local, regional, national, and international levels; some dare to believe that we are indeed, in the midst of a “Great Awakening” concerning the recognition of the importance and fundamental value of diversity, equity, inclusion, and accessibility. However, despite substantial progress, there is still much work to be done to change the lens and attain true personal, institutional, and systemic transformation.

The systemic inequities in scholarly communication are often maintained by the structures of management in institutions of higher education, commercial publishing houses, university presses, and academic organizations. These inequities often take the form of a variety of injustices, which summarily detract from scholars’ abilities to know and to communicate their understandings in their specific domains. A call to challenge scholars who find themselves at the core of academia due to their geopolitical location in the world could be made. This clarion call could be stated through the following questions: Are we listening to and embracing research coming from countries different from our own? Are we allowing researchers to use their authentic voices or are we requiring them to adhere to our standards and jump through enough academic hoops to frustrate their efforts to engage us? Are we willing to share a space at the table with researchers who speak and think differently than us and truly listen to the messages they bring? Are international collaborations we participate in fair and beneficial to all parties or do they amplify the voices of, and benefit scholars already positioned within the dominant research communities? This list of questions will grow as we begin to examine and continually negotiate the ramifications of these injustices with a willingness to address the tough issues and create a more equitable scholarly communication landscape. Most of today’s academic institutions are in a strong position to advocate for such change and to tackle those tough questions, which facilitate the inevitable journey towards achieving a just, well-functioning, and therefore healthy global information ecosystem.

References


Liu, F., Rahwan, T., & AlShebli, B. (2023). Non-White scientists appear on fewer editorial boards, spend more time under review, and receive fewer citations. *Proceedings of the National Academy of Sciences, 120*(13), e2215324120. [https://doi.org/10.1073/pnas.2215324120](https://doi.org/10.1073/pnas.2215324120)


Nakijoba, R., & Awobamise, A. (2022). Building educational research capacity: Challenges and opportunities from the perspectives of faculty staff of selected private universities in Uganda. *The Uganda Higher Education Review, 10*(1), 19–34. [https://doi.org/10.58653/nche.v10i1.02](https://doi.org/10.58653/nche.v10i1.02)

NASIG (2017). NASIG core competencies for scholarly communication librarians, *NASIG Newsletter: Vol. 32*: No. 5, Article 1. Available at: [https://tigerprints.clemson.edu/nasig/vol32/iss5/1](https://tigerprints.clemson.edu/nasig/vol32/iss5/1)


Niederman, F., & March, S. (2019). The “theoretical lens” concept: We all know what it means, but do we all know the same thing?. *Communications of the Association for Information Systems, 44*(1). [https://doi.org/10.17705/1CAIS.04401](https://doi.org/10.17705/1CAIS.04401)


Nobes, A., & Harris, S. (2019). Open access in low-and middle-income countries: Attitudes and experiences of researchers. *Emerald Open Research, 1*, 17. [https://doi.org/10.35241/emeraldopenres.13325.1](https://doi.org/10.35241/emeraldopenres.13325.1)


