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# **Reassembling Scholarly Communications**

## **Histories, Infrastructures, and Global Politics of Open Access**

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## 4 Can Open Scholarly Practices Redress Epistemic Injustice?

Denisse Albornoz, Angela Okune, and Leslie Chan

Nearly two decades after the Budapest Open Access Initiative (2002) was drafted, the early optimism that the Internet would transform the structural inequities in scholarly communications may need to be tempered, as Thomas Mboa Nkoudou has also hinted at in this book. One of the aspirations of the Open Access Movement was to make visible the knowledge produced in the Global South,<sup>1</sup> which was perceived to have been rendered invisible by the Global North's publishing and academic system.<sup>2</sup> It was also widely assumed that once open access to global research was enabled, the gap between rich and poor institutions would narrow and a more inclusive and equitable system of knowledge production and sharing would emerge.<sup>3</sup>

However, there is growing evidence that open research practices or "openness"—when decontextualized from their historical, political, and socioeconomic roots—rather than narrowing gaps, can amplify the overrepresentation of knowledge produced by Northern actors and institutions and further the exclusion of knowledge produced by marginalized groups. In other words, open systems may potentially replicate the very values and power imbalances that the movement initially sought to challenge.<sup>4</sup> This has left scholars and activists wondering about the extent to which "openness," while necessary, is sufficient for tackling inequalities in global academic knowledge production. Among the many arguments supporting this thesis in this chapter, we focus on those that allude to how open research practices may replicate epistemic injustices—a concept that refers to the devaluing of someone's knowledge or capacity as a knower—particularly with regard to knowers and knowledge stemming from the Global South.<sup>5</sup> We ask: What might epistemic injustice look like in an open system, and can openness promote epistemic justice?

We ground our argument in the experiences of the Open and Collaborative Science in Development Network (OCSDNet), a research network composed of scientists, development practitioners and community activists from Latin America, Africa, the Middle East, and Asia, with the goal of investigating how and whether an open approach to science and knowledge making could contribute to sustainable development.<sup>6</sup> Central to the network's project was the concept of situated openness,<sup>7</sup> which posits that "openness" needs to be contextualized in its particular history and environment to determine who benefits or who is at risk in an "open" system.<sup>8</sup> Drawing from concepts developed by decolonial and feminist scholars that explore the power dimensions of knowledge production,<sup>9</sup> and the work of development scholar John Gaventa on power analysis, we elaborate on how "situated openness" is a critical reflective process for identifying and assessing how different forms of epistemic injustice are deeply embedded in the current global knowledge production system.<sup>10</sup>

In the first section of the chapter, we describe how the current scholarly communication system builds and sustains notions of "expertise" and "ignorance" that amplify preexisting power asymmetries between social actors. In the second section, we turn to case studies of OCSDNet's *Projet Science Ouverte Haïti Afrique*, *Open Science in Francophone Africa and Haiti (SOHA)*, *Natural Justice in South Africa*, and environmental researchers in Latin America, to address this question and provide further insight into what epistemic injustice might look like in three diverse contexts. We conclude that the first step toward building an open system that promotes epistemic justice is to identify strategies to reduce epistemic harms that result from uncritical open practices. This would include assessing who is absent in the design of open scholarly systems, exercising "responsible agency" by being cognizant of the histories from which diverse voices emerge, and attempting to build infrastructures differently: nurturing relationships of mutual negotiation, and imagining openness as a more radical practice.<sup>11</sup>

### **Structural and Epistemic Injustice in Scholarly Communication**

Feminist science scholars have long challenged positivist approaches to knowledge production that see knowledge making as an objective or neutral process. They have argued that knowledge is an important building block of power relations, or in the words of Patricia Hill Collins, "a vitally important

part of the social relations of domination and resistance."<sup>12</sup> In this view, knowledge making is always shaped by the identities, social practices, social locations, and sociopolitical experiences of those who produce it and share it.<sup>13</sup> As a result, there are several risks and constraints in how groups interpret each other's knowledge when they hold differentiated power due to their social locations, values, and beliefs.<sup>14</sup> In this system, the knowledge of those who exist at the intersections of multiple layers of privilege—for example, an Anglo-American man from a prestigious American university—is often afforded higher epistemic value and thus considered to be more legitimate, valid, truthful, and universal.<sup>15</sup> Meanwhile, the knowledge of those who sit at multiple layers of oppression—for example, women of color, indigenous people, rural, and blue-collar workers with no access to formal education—is often considered to be false, less credible, folk knowledge, opinionated, or unworthy of consideration,<sup>16</sup> creating strong divides between those who are considered "experts" and those who are considered "ignorant."<sup>17</sup>

The scholarly communication system plays a fundamental role in constructing these notions of expertise and ignorance through several technical, social, and financial mechanisms. Some of the elements that foreground the institutional nature of what is rendered valid knowledge in a particular academic context include: the growing role of commercial publishers in building infrastructures and technical standards on which scholarship depends,<sup>18</sup> the promotion of criteria and "academic literacies" to determine quality and intellectual authority<sup>19</sup> and the ongoing dominance of the English language as part of a "rhetoric of excellence" in academia, among others.<sup>20</sup> Even though the diversity of the world is comprised of, echoing Boaventura de Sousa Santos, "distinct modes of being, thinking and feeling," this diversity remains largely absent from the theories, concepts, and infrastructures developed and employed in the academic world.<sup>21</sup> Feminist scholar Iris Marion Young referred to these mechanisms of exclusion as "conditions of structural injustice" that, when aligned in a particular way, put large groups of people under a systematic threat of domination or deprivation.<sup>22</sup> In the particular case of scholarly communications, the combination of these hidden practices builds an epistemological hierarchy that puts knowledge conforming to the norms and standards at the top, while deeming irrelevant or erasing the knowledges that do not.

Epistemic injustice also refers to the devaluing of someone's knowledge or capacity as a knower by eroding their credibility, legitimacy, and access

to social resources to share new concepts through institutionalized means, such as books, articles, and journals.<sup>23</sup> According to decolonial scholars, the construction of ignorance or of “epistemically disadvantaged identities” silences and dehumanizes entire intellectual traditions, cultures and communities; most notably, those from the Global South.<sup>24</sup> “It is not simply facts, events, practices, or technologies that are rendered not known, but individuals and groups who are rendered ‘not knowers,’” wrote philosopher Nancy Tuana.<sup>25</sup> By isolating epistemic communities from credibility and legitimacy, this system also deprives them of their right to participate in research and knowledge-making processes that, as Arjun Appadurai explained, “systematically increase that stock of knowledge which they consider most vital to their survival as human beings and to their claims as citizens.”<sup>26</sup>

### **Can Open Scholarly Practices Redress Epistemic Injustice?**

Concerned with the emerging effects of open scholarly systems and practices, OCSDNet undertook two years of research in collaboration with academics and grassroots communities from the Global South to address issues of power and inequality in open science. When analysing OCSDNet project team reflections, we discovered that different communities are willing to share their knowledge depending on how it will impact their well-being.<sup>27</sup> Drawing from three OCSDNet case studies from South Africa, Colombia, Costa Rica, and countries in Francophone Africa, we reflect on how openness as a goal may not be the means to redress epistemic injustice in scholarly communication. Rather, these examples show how a careful negotiation of the degrees and conditions around openness can allow for the ideation of community-based mechanisms to address different forms of epistemic injustice.

The research team based in South Africa (consisting of representatives from Natural Justice—a legal-research NGO in Cape Town—and academics from South Africa and the United States) developed a research partnership with Indigenous South African communities. The initial objective was to understand and potentially “open up” local knowledge that could be important for understanding the impact of climate change throughout the region and that could potentially help South Africans to learn from generations of indigenous expertise in dealing with harsh climatic conditions. However, as the team began to approach communities, the well-intentioned desire to foreground indigenous knowledge and bring “global” awareness to its

existence by “opening it up” for the benefit of outsiders was met with great resistance due to the long history of research on the San communities and their experiences of research as an exploitive endeavor.<sup>28</sup> “Openness” in this context was seen as a tool that enabled nonlocal researchers to yet again benefit from San knowledge without necessarily addressing local community interests or challenges.<sup>29</sup>

This example highlights how a desire to bring further attention to “marginalized knowledges” in the Global South under the “open knowledge-sharing” banner was not viewed by the holders of such knowledges as radical practice but rather as a new name for a century-old practice of colonial knowledge extraction from Africa.<sup>30</sup> In response to this critique, the research team facilitated a process in which research partners questioned exploitative research relations in the project, claimed their right to refuse to share knowledge, and created frameworks to center indigenous sovereignty and indigenous ways of thinking.<sup>31</sup> In collaboration with San indigenous researchers, the team developed a set of tools including a flexible community-researcher contract and a guide to protect and promote indigenous peoples’ rights in academic research processes that enable communities to negotiate—on (theoretically) more equal terms—with researchers and knowledge profiteers with whom they might interact in the future.<sup>32</sup>

An OCSDNet research team conducting research in Latin America faced a similar challenge. This project used a participatory methodology to facilitate knowledge exchange between academic researchers and rural farmers from Colombia and Costa Rica, with the objective of improving decision-making and governance mechanisms regarding biodiversity and climate change impact. The objective was to create conditions under which both academics and farmers could share their expertise with one another on equitable terms to design effective climate change adaptation strategies. This project is situated in a context of ongoing tension surrounding whose knowledge counts in defining biodiversity management and governance in Latin America. Postcolonial scholar Arturo Escobar’s work highlights how “biodiversity” in itself is a complex historically produced discourse with several definitions among a diverse network of stakeholders. Despite new attention being paid to traditional knowledge, “the conventional scientific disciplines continue to dominate the overall approach” at the policy level.<sup>33</sup>

In this context, the research team found that, for rural farmers, “opening up their knowledge” was part of a larger aspiration for the recognition and

appreciation of their ancestral and indigenous knowledge(s). The project therefore began to take openness not as a set of practices or technologies to follow, but rather, as a “state of mind or attitude” to be adopted primarily by individuals, and as a “methodology” to collaborate and work between diverse communities. Colombian researcher Hector Botero, who conducted similar projects in the area, has asserted that this “meeting of two worlds” can challenge the preexisting epistemological hierarchy of both groups, as long as actors who hold traditional knowledge get to define the priorities and conditions under which scientific knowledge is used to advance the project, and not the other way around.<sup>34</sup> The Latin America project lead Josique Lorenzo concluded that “research [needs to] begin and end with community problems, rather than with scientific problems.”<sup>35</sup>

As a third case, OCSDNet’s *Projet SOHA* consisted of a network collaboration across a number of Francophone West African countries and Haiti that were focused on raising awareness about the epistemic injustices that many university students in the region encounter over the course of their studies.<sup>36</sup> Along with some of the more obvious technical limitations for accessing academic knowledge (such as a lack of internet connectivity, computers, electricity, etc.), the project noted that some institutions tend to subscribe to and replicate the same norms surrounding “legitimate” knowledge creation as found in many Northern institutions: from the continued dominance of colonial languages to a heavy reliance on a canon and “standards of excellence” originating from centers in the Global North.<sup>37</sup> In doing so, these institutions were structurally delegitimizing forms of knowledge that strayed from these norms—such as the use of oral traditions, perspectives drawn from indigenous worldviews, and alternative forms of publishing. Furthermore, the team contended that these forms of epistemic injustices “reduce the ability of students to deploy the full potential of their intellectual skills, their knowledge and their scientific research capacity to serve sustainable local development of their community or country.”<sup>38</sup> The intention of *Projet SOHA* was therefore to foster openness as a “culture of science aimed at the creation of locally relevant, freely accessible and reusable knowledge by empowered and confident researchers using not only epistemologies from the North, but all kinds of epistemologies and methods.”<sup>39</sup> From their work, they found that young Haitian and West African scholars are keen to play a key role in establishing a culture of science and learning that is inclusive of a diversity of worldviews and intent on solving complex, local development issues.

In the studies briefly described above, these communities did not necessarily consider the open sharing of knowledge to be beneficial unless the root structures of epistemological injustice were also addressed. At the same time, they illustrate how each community attempted to reclaim the concept of openness as an opportunity to redress aspects of the historic epistemic injustice they have faced. In the first case, openness was redefined as a process to facilitate the equitable negotiation between actors with unequal levels of power. The second case highlights how openness came to be seen as a cultural shift to level the playing field between scientific and traditional knowledge. And in the third case, openness was reinterpreted as fostering a more plural and diverse knowledge-sharing system.

Even though the knowledge of all three epistemic communities has been previously “devalued” in the global scholarly system, the strategies devised by the projects did not seek legitimization through conventional academic norms and standards. Rather, they opted to assert their agency by determining the degree of openness that made sense for their particular context, and by identifying individual social and cultural mechanisms through which they could acquire the visibility, recognition, and protection of their ways of knowing. The dilemma these cases now pose revolves around how we can create systems in which we may open up and simultaneously protect the knowledge of vulnerable populations. How can we call for diversity and epistemic inclusion in open practices in and beyond academia, while ensuring that we establish safeguards and governance structures that honor these boundaries?

### **Openness in Pursuit of Epistemic Justice**

Drawing on Boaventura de Santos’s famous call to action: “the struggle for global justice includes the search for epistemic justice,” and the related call that “political resistance needs to be premised upon epistemological resistance,” we believe that a more just open scholarly communications system needs to aspire toward epistemic justice, in particular for those who are suffering under unjust sociopolitical and economic structures.<sup>40</sup> Decolonial scholars have long called for epistemic diversity in science and development, arguing for alternatives to “northern Epistemologies” and systems that allow for intercultural dialogues and an “ecology of knowledge(s)” that nurtures curiosity, appreciation, and respect for diverse ways of knowing the world.<sup>41</sup>

In this sense, the infrastructures we build and the practices we enable need to intentionally include voices, worldviews, and epistemologies that have been historically excluded from the system. While there is no one-size-fits-all approach toward achieving epistemic justice, we believe open research practices do hold promises for reducing historical and contemporary harms inflicted through the academic production system. Based on the cases and concepts elaborated in this chapter, we offer four recommendations to engage in more reflexive, critical, and just modes of working in open research.

The first recommendation is for those who hold power in the Global North to recognize and assume their positions within systems of privilege and oppression in order to exercise what philosopher José Medina calls, “responsible agency.”<sup>42</sup> This exercise of introspection prods us to reflect on how we are implicated in producing epistemic harms in the open projects we promote, facilitate, and design. Through responsible agency, following Medina’s logic, we can develop the habit of recognizing the social locations of those who are involved in the project, the histories and trajectories from which their voices emerge, the presuppositions and commitments attached to their knowledge—and more importantly, how their histories may intersect with the trajectory of our own voices. Such reflection also involves perhaps the hardest task of all: identifying the silos, absences, or silences in knowledge making that are covered by April M. Hathcock in this volume; asking who is missing from the conversation, and querying how this system inhibits the participation of a particular individual or of communities who are persistently excluded from it.<sup>43</sup> This is what de Sousa Santos calls practicing the sociology of absences: “whatever does not exist in our society is often actively produced as non-existent and we have to look into that reality.”<sup>44</sup>

The second recommendation is to challenge technical standards, norms, and infrastructures that perpetuate epistemic injustice. To begin to disrupt such a system requires activists and scholars to move beyond challenging the visible barriers of the knowledge production system, notably paywalls and licensing, to question who has the ability to set agendas, standards, and norms; to make decisions and the conditions of participation; and ultimately, to control how knowledge infrastructures are built. As Gaventa noted: “without addressing power’s invisible dimensions, greater participation may appear as increased inclusion and agency in knowledge production, but may in reality be just a more popular echo—a playing back—of the dominant values, knowledge, and messages of the status quo.”<sup>45</sup> In

the same vein, when openness is simply grafted atop existing technology and power structures, the powerful are further empowered, and the dominant epistemologies are further reproduced. Those in positions of privilege must be wary of a centralization of knowledge and instead explore how we might encourage a polyphony of perspectives and infrastructures that center other knowledges as well.<sup>46</sup> The challenges ahead include encouraging and enabling such diversity while simultaneously finding channels for scholarly communities and infrastructures to speak to each other and not to exist in siloed isolation.

The third recommendation is to build and learn from infrastructures that actively seek to redress these injustices. Various groups are already experimenting in this regard. For example, the Platform for Experimental Collaborative Ethnography (PECE) leverages explanatory pluralism and interpretive differences, the expectation that different researchers will develop alternative understandings of the same object or event.<sup>47</sup> By design, PECE encourages the creation and assembling of multiple interpretations, hypotheses, and theories in the firm belief that such explorations are necessary for the complex conditions that we seek to understand. You can see this in the platform's ability to allow multiple users to annotate the same works and in the explicit use of analytic questions for these different users to answer together. In this way, PECE turns difference—different artifacts, different annotations from diverse researchers, different and sometimes conflicting explanatory paradigms—into insight.<sup>48</sup>

Another digital anthropological platform, Mukurtu, addresses the “decoloniz[ation] of archival practices and modes of access”<sup>49</sup> through the observation of indigenous sensibilities, knowledge practices, and interdictions for the circulation of cultural materials.<sup>50</sup> Calling into question Creative Commons (CC) licenses as the accepted best practice standard, the project has generated a set of “Traditional Knowledge” (TK) labels that describe permissions and restrictions for cultural artifacts according to users' profiles and “cultural protocols.”<sup>51</sup>

And finally, the fourth recommendation is to imagine openness as a radical practice that aspires to liberation and freedom from structural oppression. Historian Robin Kelley studied alternative visions of freedom held by various black radical movements that offered a way to “see beyond our immediate ordeals” to “transcend bitterness and cynicism and embrace love, hope and an all-encompassing dream of freedom, especially in rough

times.”<sup>52</sup> Kelley argued that the most radical ideas grow out of concrete intellectual engagement with the roots of inequality and the problems of aggrieved populations confronting systems of oppression. For example, the Combahee River Collective Statement, a Black feminist declaration, not only reflects on their struggles, victories, and losses, crises and openings, but also dares to imagine what survival and liberation may look like.<sup>53</sup>

Drawing on Kelley’s work, we call for those working in public scholarship and open movements to engage in the hard work of reflecting on our values and reorganizing social life through political engagement, community involvement, education, debate, and dreaming. Instead of seeking to develop agreement and consensus around universal standards and technologies of “openness,” time and space is necessary for policy makers, scholar activists, and concerned community members to develop collaborative imaginaries for more just and equitable knowledge infrastructures. Dismantling the old is just half the battle; the other half begins with attempting to imagine futures that are radically different from the present.<sup>54</sup>

## Notes

1. We align with decolonial scholars such as Boaventura de Sousa Santos, Jean and John Comaroff, Walter D. Mignolo, Anne Mahler, Maria Lugones, Arturo Escobar, and Raewyn Connell, among others, who consider the “Global South” a sociopolitical and epistemic space that extends beyond geographical lines and represents those who are at a disadvantage due to unjust sociopolitical and economic structures (such as capitalism, patriarchy, postcolonialism, and others) regardless of where they are placed in the world.

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5. Miranda Fricker, "Forum on Miranda Fricker's Epistemic Injustice: Power and the Ethics of Knowing," *THEORIA: An International Journal for Theory, History and Foundations of Science* 23, no. 1 (2008): 69–71.

6. Leslie Chan et al., eds., *Contextualizing Openness: Situating Open Science* (Ottawa: University of Ottawa Press, 2019).

7. This concept was developed by researchers Laura Foster, Cath Traynor, and the Natural Justice team as part of their research with OCSDNet. The concept was also incorporated into the Open and Collaborative Science Manifesto, developed by OCSDNet and published in 2017.

8. Chan et al., *Contextualizing Openness*.

9. María Lugones, "Toward a Decolonial Feminism," *Hypatia* 25, no. 4 (2010): 742–759, <https://doi.org/10.1111/j.1527-2001.2010.01137.x>; Chandra Talpade Mohanty, *Feminism without Borders: Decolonizing Theory, Practicing Solidarity* (Durham, NC: Duke University Press, 2003); Boaventura de Sousa Santos, ed., *Another Knowledge Is Possible: Beyond Northern Epistemologies* (London: Verso, 2008); Safiya Umoja Noble, "A Future for Intersectional Black Feminist Technology Studies," *Scholar & Feminist Online* 13, no. 3 (2016): 1–8; Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (New York: St. Martin's Press, 2017); Anne Pollock and Banu Subramaniam, "Resisting Power, Retooling Justice: Promises of Feminist Postcolonial Technosciences," *Science, Technology, & Human Values* 41, no. 6 (2016): 951–966, <https://doi.org/10.1177/0162243916657879>.

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11. José Medina, "Whose Meanings? Resignifying Voices and Their Social Locations," *The Journal of Speculative Philosophy* 22, no. 2 (2008): 92–105.

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24. Nancy Tuana, “The Speculum of Ignorance: The Women’s Health Movement and Epistemologies of Ignorance,” *Hypatia* 21, no. 3 (2006): 13, <https://doi.org/10.1111/j.1527-2001.2006.tb01110.x>.

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27. Rebecca Hillyer et al., “Framing a Situated and Inclusive Open Science: Emerging Lessons from the Open and Collaborative Science in Development Network,” in *Expanding Perspectives on Open Science: Communities, Cultures and Diversity in Concepts and Practices*, ed. Leslie Chan and Fernando Loizides (Amsterdam: IOS Press, 2017), 18–33, <https://doi.org/10.3233/978-1-61499-769-6-18>; Chan et al., *Contextualizing Openness*.

28. We use the term “San” here, but would like to acknowledge and flag the ongoing debates over the terms of reference for the groups: San, Jun/oansi, “bushmen,” “hunter-gatherers,” BaSarwa, among others. For example, in Namibia, Jun/oansi call themselves “bushmen” when speaking Afrikaans, but otherwise call themselves Jun/oansi.

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