Spreading Sankofa

Addressing digital epistemicide through LIS education

Tyler Youngman and Beth Patin

Syracuse University, USA

✉ tdyoungm@syr.edu

Abstract

Epistemicide is the devaluing, silencing, or annihilation of knowledge and encompasses systematic knowledge destruction enacted through accumulation of epistemic injustices. Considering prior epistemicide research in LIS—in conjunction with critical, historical, and philosophical perspectives of technology––this paper examines how epistemicide occurs by and through digital technologies, constituting what we call digital epistemicide. The social, cultural, and historical epistemic injustices enabled through technology—and the proliferation of epistemic injustices in digital worlds—demands a theorization of how epistemicide occurs in digital contexts. By considering elements of power, domination, and control in relation to digital technologies, we contribute to a critically informed meta-language for describing digital epistemicide. With concern and care for the next generation of library and information professionals, we call for an enactment of Sankofa Interventions. These include everyday dialogues, practices, policies, actions, or critical reflections that engage with historical narratives from the past, absent from discourses of the present, in a manner that emulates the notion of Sankofa. The enactment of Sankofa interventions to mitigate digital epistemicide, such as reparative storytelling and other critical digital pedagogical practices, requires both ongoing attention to digitizing records that have been left behind and likewise ensuring that digital worlds are well maintained to support the preservation and sharing of knowledge.

Keywords: Digital Epistemicide; Sankofa Intervention; Epistemicide; Epistemic Injustice; Neutrality.

1. Introduction

Se wo were fi na wosankofa a yenkyi
Translated: "It is not wrong to go back for that which you have forgotten" (DeMello, 2014, p.3).

This proverb reflects the idea of Sankofa, a word derived from The Akan of West Africa, meaning "to go back and get it" (The Spirituals Project, 2010). Indeed, Sankofa reminds us that "the search for knowledge is a life-long process" and is an ongoing effort often rooted in "knowledge of the past upon which wisdom is based" and that future generations benefit from (The Spirituals Project, 2010). In a library and

information science (LIS) context, Sankofa serves as a charge to professionals and institutions alike with the responsibility "to go back and collect the narratives and materials that have been omitted and devalued in our collections and communities" (Patin and Youngman, 2022, p.1). Hence, we interpret Sankofa as a call to action for 'going back and getting' the missing narratives left behind because of the devaluation, silencing, or annihilation of knowledge.

Emerging from research in philosophy and sociology of knowledge (Santos, 2015; Fricker, 2007), we define epistemicide as the devaluing, silencing, or annihilation of knowledge encompassing systematic knowledge destruction enacted through cumulative epistemic injustices (Patin et al., 2021a), which has become an emergent and timely research area in library and information science (see, e.g.: Budd, 2022; Burgess and Fowler, 2022; Jimenez et al., 2022; McDowell and Cooke, 2022; Mehra, 2022; Oliphant, 2021; Youngman et al., 2022; Yeon et al., 2023). Previous adjacent scholarship on critical data studies and digital technologies (Noble, 2018, Benjamin, 2019; D'Ignazio and Klein, 2020) provides a clear indication that digital technologies can be used to inflict epistemicide and epistemic injustice, being the "wrong done to someone specifically in their capacity as a knower" (Fricker, 2007, p.1). However, little to no scholars in LIS extend these conversations into the realms of digitization and the ethics of digital technologies. Research into how digital technologies enable the proliferation of epistemic injustice in digital worlds remains largely unaddressed and undertheorized.

Therefore, we ask: how does epistemicide occur in digital worlds? In response, we argue that the cumulative impact of epistemic injustices enacted and perpetuated through digital technologies constitutes *digital epistemicide*. We argue that digital manifestations of epistemic injustice mirror physical or real-world injustices reflected in the creation and maintenance of digital worlds. We understand *digital worlds* as the intersection of interactions occurring between digital public spaces (Jacobs and Cooper, 2018), the digital cultural record (Risam, 2018), and information worlds (Jaeger and Burnett, 2010) mediated through digital technologies.

At the intersection of epistemic injustice, digitization, and LIS education, theorizing digital epistemicide illuminates new strategies for interrupting epistemic injustice, such as reparative storytelling (Smith and Patin, 2023) and civil rights literacy (Patin and Youngman, 2022), through which the digitization and digital exhibition of historical narratives can further epistemic justice. In working to correct histories of exclusion, we approach this work as feminist social scientists and critical information theorists at the intersection of library science, education, cultural heritage, and informatics working toward digitally presenting knowledge in educational environments from a critical pedagogical lens (Kincheloe, 2008), and critically addressing the epistemicide in our curriculum (Paraskeva, 2016).

This work supports library and information professionals in recognizing epistemic injustice to avoid committing harm through digital technologies. This is imperative given that LIS professionals are "more capable of committing these injustices on a grander scale because our purview includes handling information from all fields of knowledge" (Patin and Youngman, 2022, p.7). To address this imperative, our literature review examines epistemicide and epistemic injustice as concepts of interest for library and information science. Next, our articulation of digital epistemicide theorizes that physical real-world harms translate into the digital worlds with which we interact. Finally, we maintain that Sankofic Interventions––modes of retrieving narratives left behind in the past—serve as gateways for reconciling the harms of forgetting and promoting knowledge justice alongside communities most directly affected.

2. Literature review

2.1 Foundations of epistemicide

In *Epistemologies of the South*, Boaventura de Sousa Santos conceptualizes epistemicide as "the murder of knowledge" (2015, p.92). Santos contributes to the literature of postcolonial and decolonial studies, a body of scholarship investigating the role of cultural domination in knowledge production, in both the

suppression of native ways of knowing and upholding preferential knowledge systems. Such work critically interrogates the relationship amongst peoples, cultures, and nations impacted by colonialism, being "a relation of structural domination and a discursive or political suppression of the heterogeneity of the subject(s) in question" (Mohanty, 1988, p.65). As Fanon (1967/2015) would remind us in his seminal discussion on national culture, the destruction of knowledge under colonial domination "is sought in systematic fashion" (p.46). Santos would concur: "Unequal exchanges among cultures have always implied the death of the knowledge of the subordinated culture, hence the death of the social groups that possessed it [...] epistemicide was one of the conditions of genocide" (2015, p.92).

Santos further positions the infliction of epistemicide as a condition of maintaining "hegemonic Eurocentric modernity" (2015, p.92), an assertion Shohat and Stam further reinforce: "[European colonialism] attempted submission of the world to a single "universal" regime of truth and power. Colonialism is ethnocentrism armed, institutionalized, and gone global" (1994, p.16). Under European colonialism, epistemicide functions to shatter identity development: "Colonialist institutions attempted to denude peoples of the richly textured cultural attributes that shaped communal identity and belonging, leaving a legacy of both trauma and resistance." (Shohat and Stam, 1994, p.17). In centering Eurocentrism in the deployment of identity narratives and the development of scientific knowledge, Santos argues that epistemicide extends beyond individuals, impacting entire societies who rely on localized ways of knowing to function: "The destruction of knowledge is not an epistemological artifact without consequences. It involves the destruction of the social practices and the disqualification of the social agents that operate according to such knowledges" (Santos, 2015, p.153).

While the declaration of epistemicide as a complete eradication of knowledge is logical, Santos does not account for individual instances of destruction, and thus omits the nuanced processes of said destruction. Despite the framing of systematic knowledge destruction as a 'murder', Santos is unclear regarding the tools and mechanisms that enable the erasure of knowledge. This gap that coincides with Aleida Assmann's analysis of the -cide suffix in framing cultural erasure writ large: "[...] the suffix '-cide' implies more than pure material destruction; it also evokes a notion of killing, implying human agency and responsibility on one side and human suffering on the other" (2015, p.85). In employing a feminist analytic to situate Assmann's (2015) observation of human agency, responsibility, and suffering, we interpret individual acts of domination that contribute to systematic knowledge destruction in the maintenance of desirable knowledge systems and relationships between knowers as forms of epistemic violence (Spivak, 2023).

This violence, stemming from colonialism, includes "the 'disappearing' of knowledge, where local or provincial knowledge is dismissed due to privileging alternative, often Western, epistemic practices" (Dotson, 2011, p.236). Between knowers, epistemic violence manifests as epistemic injustice (Fricker, 2007), clarifying what Santos adjacently suggests is a mechanism for enabling "the disqualification of social agents" (2015, p.153). Therefore, we frame epistemicide not solely as the result of an overarching, top-down effort to suppress undesirable knowledge. Rather, we characterize epistemicide as the result of domination emerging individual acts of epistemic injustice contributing to a larger system of oppression, a framing that has been adopted and implemented in LIS scholarship.

2.2 Framing epistemic injustice and epistemicide in LIS

The notion of epistemic injustice emerges from debates surrounding the philosophy and sociology of knowledge and is concerned with how knowers develop their own epistemology. Fricker (2007) initially conceptualizes two types of injustice: testimonial, being when knowers "give a deflated level of credibility" to other knowers (p.1), and hermeneutical, being "when a gap in collective interpretative resources puts someone at an unfair disadvantage when it comes to making sense of their social experiences" (Fricker, 2007, p.1). Expansions and critiques of epistemic injustice have since emerged to account for gaps in Fricker's conceptualization related to epistemic oppression (Dotson, 2012), implicit

bias (Davidson, 2019), and gaslighting (McKinnon, 2019; Pohlhaus, 2020), among others. Additional critiques of hermeneutical injustice also address the limitations of Fricker's original framing of knowers unable to make sense of their own experiences, alternatively arguing that knowers unable to understand the experiences of others also constitutes hermeneutical injustice (Hookway, 2010; Dotson, 2012; Pohlhaus, 2012; Patin et al., 2021a).

In the LIS domain, Patin et al. (2021a; 2021b) further conceptualize two additional injustices: participatory, being when knowers are excluded from participating in epistemological development by being kept 'out of the know', and curricular, being when educational resources are not available to help support knowers in developing their epistemology. Youngman et al. (2022) conceptualize commemorative injustices, defined as epistemic injustice occurring through our "participation in acts of commemoration, processes of memorialization, and interactions with tangible and intangible cultural heritage." (p.362). These manifest as: 1) documentary injustice, being when we harm through falsified, partial, or misleading records; 2) memorial injustice, being when we fail to memorialize or establish artifacts of memory; and 3) performative injustice, being when we substitute social action for communicative action (p.362-364). If left unchecked, these perpetuations of epistemic injustice can lead to a complete epistemicide (Patin et al., 2020; 2021a) and enable different levels of harm. The primary harm occurs when an individual experiences epistemic injustice, leading to a "literal loss of knowledge" (Fricker, 2007, p.104). The secondary harm (Fricker, 2007) occurs when that loss is felt by groups, followed by the third harm (Patin et al., 2021a), in which an injustice subsequently impacts future generations.

Beyond levels of harm, there are also specific 'tools' that perpetuate and intensify injustice experienced by knowers. These include: 1) beneficent gatekeeping, defined as "the intention to help [coming] from a sense of knowing better or best, yet results in gatekeeping of materials, and the eventual canonization of certain types of knowledge" (Patin et al., 2021a, p.8), and 2) parasitic omission, defined as the "practice of forgetting inconvenient truths and only remembering, archiving, or collecting materials in service of uplifting saviour narratives or as a means of guilt appeasement" (Patin and Youngman, 2022, p.2). Patin and Youngman (2022) further posit that beneficent gatekeeping and parasitic omission, when used to inflict epistemic injustice, enable a cycle of interrupted knowledge development (p.4), whereby these tools amplify each other and further restrict knowers who acquire and share skewed knowledge, thus gradually chipping away at their capacity to know. The recurring and cumulative presence of epistemic injustices leads to epistemicide if unmitigated. Beneficent gatekeeping and parasitic omission function as modes of 'speaking for' rather than 'speaking with' communities (Alcoff, 1991), serving to diminish the value of lived experiences and restrict how knowledge moves from communities and whether such knowledge is representative of the histories and narratives of communities themselves.

2.3 Post-neutrality and epistemicide in LIS education

The *Oxford Advanced Learner's Dictionary* defines neutrality as "the state of not supporting either side in a disagreement, competition or war" (2022). Meanwhile, Feminist research has long offered critiques of neutrality in its various forms, including in language used to describe social practices, as "holding knowledge and knowing are not neutral human experiences, and creates complicated dynamics in how we teach, learn, communicate, behave, and adapt to our surroundings" (Sebastian et al., 2022, p.78). Although none of the foundational documents of librarianship espouse neutrality as an ethical value, LIS professionals have long upheld neutrality as a desired ideal, with historical practices, attitudes, and pedagogies embracing this belief.

If we embrace neutrality as a foundational value, we are limited in our responses to build equity in our communities. Therefore, addressing, and problematizing neutrality in LIS enables us to rectify the epistemically unjust status quo in libraries and information institutions. If we critically examine our practices, we can find ways to mitigate previously inflicted epistemic injustices. However, if we continue

upholding the status quo, a lack of action replicates the epistemic injustices already happening in our information spaces to our digital worlds.

Since libraries are to serve everyone in their communities, they cannot rely on neutral stances. If not addressed, these neutral stances within librarianship can lead to parasitic omission or beneficent gatekeeping (Patin and Youngman, 2022). Rather, they must be aware of the inequities in their communities and be ready to provide radical solutions and information services to work towards equity. Recent pushback has emerged against both the way we define neutrality in our field (Scott and Saunders, 2021) and whether this ideal should even be upheld at all (Drabinski, 2019). Scott and Saunders (2021) articulate this issue because within the LIS literature the term neutrality, "seems to be used for, or conflated with, everything from not taking a side on a controversial issue to the objective provision of information and a position of defending intellectual freedom and freedom of speech" (p.153). Their research found that amongst librarians, there is no agreed upon conception or operationalization of neutrality.

Within the field of LIS, we present libraries "as gateways to knowledge, providing access to information and services to all Americans" and this is critical because libraries "are ubiquitous in most local communities in the USA" (Gibson et. al, 2017, p.752). However, this "construct of the library as a neutral entity limits the work that is necessary to truly provide responsive, equitable, and inclusive access to information, […] and other library services for communities dealing with crises or social unrest" (Gibson, et. al., 2017, p.752). Although collectively we are moving into an era of post-neutrality within LIS (Lankes, 2020), the concept of neutrality remains embedded in information spaces and systems. These embedded values influence which members of our community can access information and how they are able to interact with our services and systems. Therefore, without clear examination of the impact of neutrality on our praxis and policies:

> "Seemingly 'neutral' libraries are often those that ignore the specific concerns of marginalized groups and address those of racial, social, and political majorities. The very question of access is a political one; the placement of library branches and allocation of resources, programming choices, and content of library collections all represent social and political interests frames neutrality as a practice in structural oppression of marginalized groups, as it is characterized by disengagement from (as opposed to active engagement with) crises within communities of colour" (Gibson et al., 2017, p.754).

As previously discussed, because LIS professionals are responsible for managing knowledge across disciplines, we are at greater risk to commit epistemic injustice. Further, if we maintain a professional virtue of neutrality, we uphold an oppressive system that enables the infliction of harm (for a more robust discussion on this issue, see: Sebastian et al., 2022). In the face of increasing challenges to intellectual freedom, neutrality in LIS is especially problematic and further enables the erasure of cultural narratives and identities. In the case of ongoing book banning, if LIS professionals stay neutral and avoid responsibility as political agents for equity, then materials of marginalized communities will continue to be forcefully excluded from our shelves (also see Knox, 2014; 2019). Therefore, employing a critical lens allows us to locate, name, and correct the mistakes made by LIS in the past that without intervention will continue to happen. Prioritizing a framing of neutrality in the LIS profession inhibits social progress and deprives us of the opportunity to address harms through revised practices, education, and leadership.

3. Articulating digital epistemicide

3.1 From physical to digital epistemicide: Historical perspectives

If epistemicide is systematic in nature, then it makes sense that such a system would be composed of concurrent and compounding mechanisms that chip away at our capacity for epistemic growth, being epistemic injustice. These mechanisms can manifest as policies, professional practices, social customs, cultural norms, and political actions informing the creation, application, and preservation of information.

These may likewise inhibit or promote creation, application, and preservation of knowledge. Such mechanisms designed and used by humans—informed by social, political, cultural, and environmental stimuli—might be best described as being technologies, or simply "the way people do things" (White, 1940, p.141).

However, despite materialist framings of technologies, they may not necessarily possess tangibility. Employing the notion of epistemic objects—being the "entities that we identify as constituent parts of reality" (Chang, 2011, p.413), we can frame human-enacted sensorial experiences and epistemic phenomena as being technologies, further enacted by the "body itself as interface" (Bell, 2020, p.33). Consider speaking a language or interpreting visual cues: such activities encompass information exchanges made possible by the function of our mind and body as mechanisms for documentation, performance, and interpretation within social and cultural systems. Returning to White's (1940) framing of technology, these activities are 'the ways in which we do things', relying more on a framing of technology that centres the impact and result of knowledge production rather than the material nature of artifacts in question. Here, technologies provide for an enhancement of a lived reality, enabling a process of efficiently doing things that provide a social, cultural, or survival advantage. It is through these transitive distinctions that we may describe epistemicide as being a technology of erasure, composed of mechanisms of distinct types of erasure, being epistemic injustices.

While the use and possession of technologies provides innumerable benefits to societies, attention to the historical harms enacted, enabled, and proliferated by and through such technologies is of tantamount importance. Even in the earliest history of libraries and archives, Lerner (2011) reminds us that the processes of recording information have always been subject to the pressure of external powers. Indeed, writing itself was—and still is—an exclusive technology used with specific persons, purposes, and knowledge systems in mind. Lerner asserts this distinction by sharing how the "oldest writings to survive to our time were inscribed 5,000 years ago by temple bureaucrats recording economic transactions" (p.1), and that "the temple administrators needed to record the details of the landholdings and harvests" (p.2). Here, the exclusivity of writing, and the use of writing as technology, enabled scribes to establish a record of events that subsequently enabled the maintenance of power: "[…] temples needed a more permanent way to keep track of what they owed and what they owned" (p.2).

A notable observation from this example is that the highest social classes with the most religious and economic power were in control of what knowledge was preserved. Similarly, in looking to the evolution of Sumerian written characters—from 'signs' to 'pictographs' to 'ideograms' —Lerner notes that "conservative scribes used both types of character, a complicated arrangement that made scribal training difficult and perpetuated the power of the priesthood" (p.1). This specialized knowledge and training of the priesthood gave them a strengthened influence and justification over what to record. This example demonstrates how a technology as simple as writing was used to reinforce social, religious, and economic classism through the possession of a skill that determined the preservation of dominant knowledge.

In addition to the creation of records, the destruction of records also functions as a way of gaining power over the existence of knowledge. Building on Friedrich (2018), Youngman et al. (2022) reminds us: "the seizure and destruction of archives is a practice almost as old as record keeping itself", as is "the withholding or destruction an act of silencing the record with the purpose of inflicting damage on the enemy" (p.360). In the context of regime-sponsored efforts to distort and silence the historical record, Rebecca Knuth (2003) names this kind of record destruction as 'libricide', or 'the murder of books.' Knuth (2006) later builds on this interpretation by more explicitly foregrounding the role of ideology in prompting material destruction, leading to an articulation of 'biblioclasm', possessing a "linguistic relation to iconoclasm" used to "denote purposeful action that is rooted in moral repugnance or judgment" (p.18). Whether enacted through book burnings or extreme forms of censorship, both libricide and biblioclasm constitute epistemicide with material consequences for knowledge acquisition and dissemination.

While much has certainly changed since the time of our ancestors, the creation, possession, and use of technologies—especially digital technologies—has reinforced and replicated many of the same issues encountered in the past. Indeed, the move from physical to digital technologies has impacted numerous industries that have emerged in our increasingly interconnected information society, and in turn, have influenced the production, preservation, and dissemination of knowledge. The impact of this change is observable in LIS, ranging from the transition between card catalogues and digital databases, to the preservation of microfilm to the creation of digital objects and images.

As knowledge moves from these physical to digital formats, salient ethical concerns emerge regarding influence of digital technologies in enabling, maintaining, or privileging the production of dominant knowledge systems. What happens when knowledge becomes lost in translation during the transition of digital information systems? How might the digitization decisions made by librarians and information professionals today impact knowledge seekers today compared to say 50 years from now? How do the policies, practices, and precedents of information institutions, in their quest to preserve and share knowledge deemed worthy of being digitized, reflect an enactment of power that enables the destruction or silencing of counter historical-narratives or alternative ways of knowing? These questions foreground how digital technologies hold the potential to infringe upon people's epistemic power, which we understand as digital epistemicide.

3.2 Critical theoretical grounding: Defining digital epistemicide

We defined epistemicide as the devaluing, silencing, or annihilation of knowledge encompassing systematic knowledge destruction enacted through cumulative epistemic injustices. However, how epistemicide occurs in digital contexts requires further theorization, given that the flow of knowledge is impacted by the different constraints, affordances, and adaptability of digital technologies. Therefore, digital epistemicide encompasses the systematic interruption, silencing, suppression of knowledge within digital worlds. A theorization of digital epistemicide also goes beyond introducing a form of epistemic injustice. Rather, we frame the consequences of digital epistemicide as symptoms of larger structural inequities and histories of oppression, rather than as a reductive diagnosis that names epistemic injustices in digital worlds as isolated and unrelated incidents.

Utilizing Cummings et al. (2023) approach to pursuing action-oriented approaches to epistemic justice in real-world situations, we present the harms inflicted by digital technologies as divergent manifestations of epistemic injustice. Doing so enables us to move past philosophical considerations of epistemic injustice, opting instead for an analysis of digital technologies that situates epistemic injustice at 'systemic, structural, and individual levels' (Cummings et al., 2023, p.8). There is, of course, not one theory of digital technologies that enables us to understand digital epistemicide. This paper builds upon select perspectives from the intersections of social constructionism, technological history and philosophy, and critical feminist theories of technologies.

The construction of digital technologies and associated artifacts are informed by the nonhomogeneous social groups, within divergent social worlds, which create them (Pinch and Bijker, 1987; Russell and Williams, 2002; Star and Griesemer, 1989). Furthermore, digital technologies are intricately tied to the social environments that enable their creation, alongside the social changes that further cement or reconfigure their presence in the world (Hughes, 1994). As Orlikowski and Iacono (2001) similarly explore, digital technologies can manifest as anything from tools to entire systems that accomplish laborious tasks—ranging from simple processors to algorithms. However, in the context of epistemicide, these aforenoted circumstances raise several concerns: What types of bodies or social groups are empowered or excluded through technologies? What types of knowledge are maintained through technologies? In considering digital epistemicide: how do these problems translate into digital worlds?

We may begin to address these questions utilizing Haraway's (1991) conceptualization of the 'informatics of domination' (Haraway, 1991), an ever evolving "polymorphous, information system"

(p.161) and technologically mediated form of "white capitalist patriarchy" (p.162). Haraway's manifesto critiques the impact and integration of digital technologies across numerous social contexts: "The home, workplace, market, public arena, the body itself–all can be dispersed and interfaced in nearly infinite, polymorphous ways, with large consequences for women and others […]" (p.164). For us 'cyborgs' [as organisms deeply bound to technologies], Haraway's concerns remind us that our interactions with digital technologies are bound to social, cultural, and historical modes of oppression. Violence is recreated and stabilized through our use, reproduction, and dissemination of such technologies: "informatic systems are not just technological "black boxes," but entire techno political-economic systems designed to be invisible by their corporate and/or authoritarian owners" (Bell, 2020, p.24). Joerges (1990) echoes this assertion: "machines will think when people come to *believe* they think" (p.225). Machines and more aptly digital technologies—and the systems they operate within—are designed to think like the people who created them, informed by the same social constraints.

In answering Bell's (2020) call for feminist vigilance and subjecting systems to scrutiny and combatting harms informed by them (p.24), theorizing digital epistemicide serves as a refusal to see digital instances of harm as individual occurrences, but rather, as a reflection of larger systemic issues. Recalling how digital technologies contribute to well-documented forms of racial, sexual, and gendered oppression, we are reminded of how the functionality and affordances of those digital technologies are, in turn, "products of mutual alliances and dependencies among groups involved" in the creation, use, and reconfiguration of technology (Wajcman, 2000, p.457). When those in positions of power are dictating those alliances, the resulting digital technologies reflect not mutuality, but disunity, and sometimes malice. Therefore, a theorization of digital epistemicide, and likewise how epistemic injustice occurs in digital worlds, is paramount in the pursuit of information equity and justice driven technological change.

4. Toward Sankofa intervention

4.1 Locating instances of epistemic injustice in digital worlds

Testimonial Injustice, as a mechanism of dismissal, might manifest in the physical world as a discreditation of someone's lived experience. In the moment, this harm appears as beneficently taking over someone. This may range from talking down to someone's experiences, or gaslighting them into not believing their own experiences occurred. In digital worlds, however, we might commonly observe actions of discrediting and taking over as cyberbullying and other combative situations whereby agents within digital worlds are pitted against each other. Hermeneutical injustice, as a mechanism of obscurity, manifests in the physical world as a kind of illiteracy rooted in the inability to describe the experiences of us or others that leads to epistemic harm. So too, in digital worlds, can we imagine digital illiteracy— or even technological naivety—as an already inflicted hermeneutical injustice, whereby we cannot engage with actors or agents within digital worlds. This could result in an inability to navigate platforms, engage with casual and easy-to-use tools, or a need for assistance to operate digital technologies altogether—not because of inability or disability, but because of an unknowingness of one's own abilities. Here, digital worlds themselves become obscure to the digital agent in question.

Participatory injustice, as a mechanism of exclusion, manifests in the physical world as an exclusion from groups, in tandem with the experience of being kept 'out of the know.' In looking at our initial definition of digital epistemicide, participatory injustice manifests in digital worlds at multiple levels, being: 1) exclusion from digital worlds altogether, or 2) exclusion experienced within digital worlds. The first instance may be best illustrated by the digital divide, whereby certain groups are unable to access digital worlds because of access to technologies, which in turn, can be traced back to groups privileged enough to possess the technologies to pass through the gates of digital worlds. The second instance may be best situated when we attempt to further dive into the deeper world. Perhaps we can access our desktop on personal computers, but not the internet. Likewise, we may be able to access a digital tool online, but

only certain functionalities are afforded to the lay user. Participatory injustice in digital worlds is a means by which exclusivity is maintained, and as such, artificial hierarchies of access and control are enabled.

Curricular injustice, as a mechanism of restriction, manifests in the physical world as the everyday curated knowledge we come to engage with that present a partial narrative. From the state sanctioned educational textbook to the availability of resources deemed appropriate for display in a library, curricular injustice results in resources that promote a skewed epistemology. Curricular injustice impacts how we learn, share, and teach knowledge through resources, including in digital worlds, where algorithmic curation, predicted user behaviours and classifications, search optimized advertisements, and even paywalls, present preferential resources that privilege narratives and agents within digital worlds. Curricular injustice is an exercise of imposing epistemic uniformity by determining who can access certain resources, the availability of said resources, and whether certain digital worlds—in which the resource exists—deems certain users more worthy of knowing.

Commemorative injustices, altogether mechanisms of misinforming, manifest differently depending on context. Documentary Injustice, as a mechanism of misleading, occurs when sources themselves are misleading, which in digital worlds, may result in a plethora of digitally unique documents—deep fakes, fake news, bots, etc.—that contribute to misinformation. Memorial Injustice, as a mechanism of misremembering, occurs when knowledges of the past are absent or misremembered, which in digital worlds, could manifest as the destruction of digital archives, the absence of digital narratives, or when narratives are silenced by means of search suppression. Performative Injustice, as a mechanism of virtue signalling, occurs by and through the politics of acknowledgement, and can manifest in digital worlds as social messages that on occasion–despite their initial positive appearance—may not necessarily be rooted in actions of promoting intentional change.

In building on the theorization of concurrent epistemic injustices, examining how two or more harms occur simultaneously and amplify each other (Youngman et al. 2022; Yeon et al., 2023), it is worth recognizing certain types of harm are not exclusive to specific types of epistemic injustices. An action may result in an epistemic injustice in the physical world, yet through its translation into digital worlds––or in the case of physical materials, digitization—an action may result in a different epistemic injustice. Given the flexible boundaries of digital worlds, epistemic injustices possess the capacity to change in the type of harm inflicted and the scale of impact, both of which lead to interrupted knowledge development (Patin and Youngman, 2022).

4.2 Conceptualizing and situating Sankofa interventions

We began this article by introducing the concept of *Sankofa*, reflecting on the idea that retrieving histories, knowledge, and narratives left-behind in the past is necessary in the pursuit of knowledge justice. Likewise, our previous work interprets Sankofa as a call to action for LIS to reexamine its history of harms and practices that have influenced knowledge production, and likewise destruction (Patin and Youngman, 2022). With concern and care for the next generation of library and information professionals, we interpret Sankofa as an instruction to go back and collect the knowledge omitted from our community's history, curriculum, and cultural practices, and likewise devalued by our pedagogies and curricular resources. Specifically, we call for an enactment of *Sankofa Interventions*, being the dialogues, practices, policies, actions, or critical reflection that engage with historical narratives from the past, absent from discourses of the present, in a manner that emulates the notion of Sankofa. Indeed, rectifying and mitigating the effects of epistemic injustice in the physical world, and preventing their proliferation in digital worlds, demands a commitment to Sankofa Intervention.

In this article, we have encountered situations where selective digitization and preservation has enabled epistemicide. Therefore, Sankofa interventions, in the context of digitization, call for us to address the harms committed through a failure to digitize, to digitize and retrieve what we missed, and subsequently examine the educational practices/conditions that enabled LIS professionals to make these decisions.

Sankofa Interventions extends far beyond simply retracing our steps to locate 'hidden histories,' without which we would be left with an elusive historical record. Rather, we must critically engage with how recovered materials, narratives, and experiences inform our commemorative practices, cultural competence, professional awareness, and instructional approaches. Indeed, Sutherland (2017) asserts this salient concern regarding documentary practices in her discussion of Archival Amnesty:

> "In the face of mounting ethical and human rights concerns about the obfuscation of anti-Black racism [...] collaborations among LIS practitioners, professional archivists, and community-based archivists have emerged to begin the work of collecting stories and documenting violence and injustice in vulnerable communities. These documentation efforts are also an attempt to create an historical record, eliminating the possibility of erasure and enabling the possibility of justice" (p.17).

In furthering Sutherlands' (2017) call for archival amnesty, Sankofa Interventions are an explicit strategy for pursuing epistemic justice, given their role in helping us to fill the knowledge gaps encountered by knowers, communities, institutions, and generations. Parallel to the notion of concurrent injustice, Sankofa Interventions enable library and information professionals to go back and collect the missing stories from previous generations, and we can begin repairing the gaps in collections. Many Sankofa interventions must happen to address the epistemicide perpetuated in our libraries, archives, museums, and other educational institutions to begin healing from the omission and silencing of knowledge.

In situating instances of harm in libraries, archives, and museums, we turn to Alabama Department of Archives and History, which recently acknowledged their failure to archive the history of Black communities in Alabama because of their preferential preservation of confederate narratives (Murray, 2020), not only did their physical collections suffer, but the ability of ADAH to digitize and digitally represent was inhibited. The memorial injustice they inflicted in the physical world that became epistemicide translated to digital epistemicide because knowledge could not transfer into digital worlds. Imagine for a moment that a student completing a book report is unable to access relevant digital records related to Black history in Alabama; knowledge cannot travel between that knower and those entities, and that harm in an educational context constitutes curricular injustice. Furthermore, imagining if that student's personal heritage is directly tied to Black history in Alabama; a hermeneutical injustice is also inflicted.

The resulting snowball effect leading to a combination of memorial-curricular-hermeneutical injustices, because of decisions made by the LAM institution, has chipped away at and interrupted the student's capacity for knowledge development. In another context, imagine that a document created, edited, and shared, but carries falsified information, thus inflicting a documentary injustice. Should that document be used to educate someone, a curricular injustice is inflicted. Should an individual take that falsified document they were taught about and position themselves as an expert knower—because of their engagement with the document—and go on to dismiss somebody else with rival knowledge, they are inflicting testimonial injustice. Should that document be digitized and used in a news article, the aforenoted harms are then replicated in digital worlds. However, if that digital document is used to falsely describe something in the past, and then becomes curated as a marker of memory, in say, a digital archive, then a memorial injustice is inflicted.

In addressing the harms inflicted in these previous examples, Sankofa Interventions might occur in a collections context, involving a reprioritization of collections processing order, increasing funds to focus exclusively on locating and engaging with materials to resolve knowledge gaps, or even the creation of supplemental educational materials that recognize the biases in collecting practice when describing or sharing the contents of collections and the historical narratives constructed from them, thus providing heightened transparency to knowers who engage with such materials. Likewise, Sankofa interventions might also occur with regard to library and information professionals themselves, involving assessments of cultural competence or biases that may inform collecting practices, a re-examination of policies and procedures determining collecting responsibilities that minimizes the risk of beneficent gatekeeping and parasitic omission, and collaborating with community members and relevant knowledge seekers who

engage with such collections, so as to best fit their needs, reflect their experiences, and faithfully represent histories that institutions often fail to fully encapsulate.

5. Enacting Sankofa intervention

5.2 Pursuing epistemic justice through digitization in LIS

The enactment of Sankofa interventions to mitigate digital epistemicide requires both ongoing attention to digitizing records that have been left behind and likewise ensuring that digital worlds are well maintained to support the preservation and sharing of knowledge. Pursuing epistemic justice, regardless of location in physical or digital worlds, requires critical self-reflection and evaluation of the institutional practices, policies, and actors responsible for historically enabling and perpetuating harm. Consequently, LIS professionals—not just institutions—are well-positioned to enact change in our information centric society. By tapping into the connectedness of LIS to various communities and professional domains— and leveraging institutional powers to support Sankofa interventions—practitioners, educators, and academics alike can leverage their networks, institutional resources, and specialized knowledge for public good. LIS professionals have a moral obligation and ethical responsibility to support Sankofa Interventions, for doing nothing is not an option, as such a dismissal of responsibility builds upon the myth of neutrality—particularly in LIS. Neutrality, in and of itself, manifests as a form of epistemic injustice, whereas "neutrality harms institutions and community members because it forces a particular way of knowing and reinforces systems of knowledge that prioritize and safeguard institutions from being held accountable" (Sebastian et al., 2022, p.78).

Undoubtedly, the counter-narratives that emerge from interventions may inevitably reshape and correct incomplete narratives built into our own epistemologies, educational praxis, institutional histories, and professional training. Likewise, there is a tension that exists in calls for Sankofa Interventions, especially between those who hold and draw power from absent narratives, and those who aim to call into question its legitimacy and authority. It is here that retrospective and responsive digitization efforts surface as epistemological equalizers of sorts, serving to increase the accessibility of such knowledge retrieved by Sankofa interventions. In the context of digitization, the adoption of critically conscious approaches and policies for digitization priority, access, and support, must be adopted into how we teach information professionals—be it librarians, data scientists, educators, curators, or the like—how to make ethically informed decisions that further epistemic justice. Therefore, when making digitization decisions, we should consider:

- How might this digitization initiative empower communities represented or harm communities not represented?
- What is the justification for prioritization of digitizing certain collections and historical narratives?
- Does this digitization contribute to the demographic diversity or epistemological breadth of the collection or institution?
- Does this digitization contribute to inclusive collection development or enable new community education or programming opportunities?
- Does this digitization rectify parasitic omissions or beneficent gatekeeping enabled by your information institution?

5.2 Critical digital pedagogies for LIS education

It is imperative that those of us within LIS education, and academia more broadly, examine the pedagogical decisions allowing librarians and information professionals to embrace a practice that allows

them to stand idle in the face of oppression and discrimination, especially when making digitization decisions. In other words, we are educating librarians in a way that enables these injustices and harms, as librarians are graduating without the expertise of and confidence in the skills to collaborate with diverse communities competently (Cooke, 2018). We believe part of the solution is cultural humility, competence, and responsiveness (training librarians) and another part is about developing collections, identifying gaps, and understanding their users. Librarians must be able to "intentionally address, integrate, and provide solutions of change in a proactive manner to help overcome entrenched marginalizing circumstances" (Mehra, 2021, p.463). We in LIS must include and embrace educational materials supporting the development of all our librarians and that of the communities they will go out and serve.

Critical pedagogies include critiquing systems of oppression and power, including our traditional approach to education and the subsequent maintenance of hegemony (Rapchak, 2021, p.143). As Mehra (2021) reminds us: "the Brazilian philosopher and educator Paulo Freire propounded critical pedagogy as a political act in teaching and learning to bridge realms of education and social action for student advocates to resist oppression, operationalize social justice, and promote empowerment" (p.462). Sankofa interventions serve as a call to reform higher education, including LIS education, through a commitment to a critical pedagogical praxis, to bring suppressed narratives to the curricular forefront and address the historical harms of epistemicide. Equipping LIS professionals with cultural humility, competence, and responsiveness when making digitization decisions moves us toward epistemic justice and enhances reform.

5.3 Reparative storytelling through digitization

Through reparative storytelling (Smith and Patin, 2023) in digital worlds, we can share oral and performance-based ways of knowing and remembering that are often missing from the record (Youngman et al., 2022). Many interventions are needed to address epistemic injustices in LIS, and using counter-storytelling in LIS to help empower those who have been marginalized is not new (Cooke, 2016; Leung & López-McKnight, 2021; McDowell et al., 2021). By collecting stories previous generations might have missed, we can repair some of the gaps in our narratives, collections, and collective knowledge. However, it is insufficient to go back and collect missing items; we must engage with these materials, as Sutherland (2017) says: "collaborations among LIS practitioners, professional archivists, and community-based archivists have emerged to begin the work of collecting stories and documenting violence and injustice in vulnerable communities. These documentation efforts are also an attempt to create an historical record, eliminating the possibility of erasure and enabling the possibility of justice" (p.17). We advocate for "reparative storytelling" to describe work that centres oral and performance-based ways of knowing that establish the evidence needed for dignity, healing, and justice.

6. Conclusion: Spreading Sankofa

In our discussions, we have explored how knowledge destruction is as old as the history of knowledge itself, reflecting the ways in which people, technologies, and societies take shape and vie for power over one another. This destruction of knowledge is facilitated by both social systems of oppression and through epistemic injustices that inform how particular knowledge is upheld and maintained, or left behind and forgotten, resulting in epistemicide. Sankofa interventions aim to mitigate the impact of epistemic injustices, in both physical and digital worlds, by inviting reflection on the origin, cannon, and spread of knowledge with which we interact. Furthermore, we acknowledge that the act of 'going back and getting' can be arduous and intensive, surfacing uncomfortable histories and painful remnants of the past. Hence, we remind our readers that Sankofa Interventions are not merely theoretical nor performative. Rather, they are meant to be implemented in our everyday lives. Sankofa Interventions are the ongoing dialogues,

more-accountable policies, culturally competent professional practices, and so on, that are enacted through long-term commitments that call out injustice and mitigate the impact of historical harm. In addressing digital epistemicide, Sankofa interventions enable us to call out potentially harmful digital decisions, responsively call in those responsible for such decisions, to mitigate the risk for harm, erasure, and injustice moving from our physical world and manifesting in our digital worlds.

Extending the conversation on epistemic injustices to articulate a theorization of digital epistemicide also has several implications for areas beyond library and information science reliant on interconnected digital worlds. From social media and online communications, where issues of content moderation and platform governance are shaping how knowledge moves between knowers, to information systems retrieval and search, where issues of injustice in existing taxonomies and the development of AI relying on biased information shapes how knowledge is stored and created by knowers. Indeed, articulating digital epistemicide allows for future discussions regarding the processes that enable epistemicide and epistemic injustice, and further contributions to ongoing dialogue regarding the use of digital technologies as a form of resistance in the face of harms (see, e.g.: Jones, 2019; Florini, 2019). While interventions already exist that address injustice—including reparative digitization of collections, content moderation, accessible technologies, open access to scholarly works, document identifiers, community-driven forums, and resource pages—using an epistemicide-informed meta-language to name these harms and will provide new avenues for developing responsive and collaborative Sankofa Interventions that further epistemic justice.

Acknowledgments

References

Alcoff, L. (1991). The problem of speaking for others. *Cultural critique*, (20), 5-32. https://doi.org/10.2307/1354221

Assmann, A. (2015). The burning of books as an assault on cultural memory. *What do we lose when we lose a library? Proceedings of the conference held at the KU Leuven 9-11 September 2015,* pp. 85-96.

Bell, S. A. (2020). The informatics of domination and the necessity for feminist vigilance toward digital technology. In P. Sotirin, V.L. Bergvall, and D.L. Shoos (Eds.), *Feminist Vigilance* (pp.23-42). Palgrave Macmillan, Cham.. https://doi.org/10.1007/978-3-030-59793-1_2

Benjamin, R. (2019). *Race after technology: Abolitionist tools for the new jim code*. Social forces.

Budd, J. (2022). *The Library as Forum in the Social Media Age*. Rowman & Littlefield.

Burgess, J., & Fowler, G. (2022). Opposing Epistemicide as First Principle: Redeeming Social Epistemology in LIS Education. In *Proceedings of the ALISE Annual Conference*. https://doi.org/10.21900/j.alise.2022.1065

Chang, H. (2011). The Persistence of Epistemic Objects Through Scientific Change. *Erkenntnis, 75*(3), 413–429. http://www.jstor.org/stable/41476731

Cooke, N.A. (2016), "Counter-Storytelling in the LIS Curriculum", Perspectives on Libraries as Institutions of Human Rights and Social Justice (Advances in Librarianship, Vol. 41), Emerald Group Publishing Limited, Bingley, pp. 331-348. https://doi.org/10.1108/S0065-283020160000041014

Cooke, N. A. (2018). Creating Mirrors and Doors in the Curriculum: Diversifying and Re-Envisioning the MLS. In J. Percell, L. C. Sarin, P. T. Jaeger, & J. Carlo Bertot (Eds.), *Re-envisioning the MLS: Perspectives on the Future of Library and Information Science Education* (Vol. 44B, pp. 27–48). Emerald Publishing Limited. https://doi.org/10.1108/S0065-28302018000044B003

Cummings, S., Dhewa, C., Kemboi, G., & Young, S. (2023). Doing epistemic justice in sustainable development: Applying the philosophical concept of epistemic injustice to the real world. *Sustainable Development, 31*(3), 1965-1977. https://doi.org/10.1002/sd.2497

Davidson, L. J. (2019). When Testimony Isn't Enough: Implicit Bias Research as Epistemic Exclusion. In B.R. Sherman and S. Goguen (Eds.), *Overcoming epistemic injustice: Social and psychological perspectives* (pp. 269-284). Rowman & Littlefield International.

DeMello, M. (2014). *Inked: Tattoos and Body Art around the World* [2 volumes]. ABC-CLIO.

de Sousa Santos, B. (2015). *Epistemologies of the South: Justice against epistemicide*. Routledge.

Dotson, K. (2011), Tracking Epistemic Violence, Tracking Practices of Silencing. *Hypatia, 26*(2), 236-257. https://doi.org/10.1111/j.1527-2001.2011.01177.x

Dotson, K. (2012). A cautionary tale: On limiting epistemic oppression. *Frontiers: A Journal of Women Studies, 33*(1), 24-47. https://doi.org/10.5250/fronjwomestud.33.1.0024

D'ignazio, C., & Klein, L. F. (2020). *Data feminism*. MIT press.

Drabinski, E. (2019). What is Critical About Critical Librarianship? Publications and Research. https://academicworks.cuny.edu /gc_pubs/537

Fanon, F. (2015). On National Culture. In P. Williams & L. Chrisman (Eds.), *Colonial Discourse and Post-colonial Theory: A Reader* (pp. 36-52). Routledge. (Original work published 1994) (Reprinted from *The Wretched of the Earth.* trans. Constance Farrington, pp. 166-7, 168-71, 172-5, 178-83, 187-99, by Frantz Fanon, 1967, Penguin: Harmondsworth)

Florini, S. (2019). *Beyond hashtags: Racial politics and black digital networks*. New York University Press.

Fricker, M. (2007). *Epistemic injustice: Power and the ethics of knowing*. Oxford University Press.

Friedrich, M. (2018). *The birth of the archive: A history of knowledge*. University of Michigan Press.

Gibson, A.N., Chancellor, R.L., Cooke, N.A., Park Dahlen, S., Lee, S.A. and Shorish, Y.L. (2017). Libraries on the frontlines: neutrality and social justice. *Equality, Diversity, and Inclusion, 36*(8), 751-766. https://doi.org/10.1108/EDI-11-2016-0100

Haraway, D. (1991) A Cyborg Manifesto: Science, Technology and Socialist-Feminism in the 1980s. In Nicholson, L. (ed.), *Feminism/Post-Modernism* (pp. 190-233). Routledge: New York.

Hookway, C. (2010). Some varieties of epistemic injustice: Reflections on Fricker. *Episteme, 7*(2), 151-163. https://doi.org/10.3366/epi.2010.0005

Hughes, T. (1994). Technological Momentum. In Marx, L. and Smith, M. R. (eds.), *Does Technology Drive History: The Dilemma of Technological Determinism* (pp. 101-113). MIT Press: Cambridge, MA.

Jacobs, N., & Cooper, R. (2018). *Living in digital worlds: designing the digital public space*. Routledge.

Jaeger, P. T., & Burnett, G. (2010). *Information worlds: Behavior, technology, and social context in the age of the Internet*. Routledge.

Jimenez, A., Vannini, S., & Cox, A. (2022). A holistic decolonial lens for library and information studies. *Journal of Documentation*, *79*(1), 224-244. https://doi.org/10.1108/JD-10-2021-0205

Joerges, B. (1990). Images of Technology in Sociology: Computer as Butterfly and Bat. *Technology and Culture, 31*(2), 203-227. https://doi.org/10.1353/tech.1990.0047

Jones, F. (2019). *Reclaiming our space: How Black feminists are changing the world from the tweets to the streets*. Beacon Press.

Kincheloe, J. L. (2008). *Critical pedagogy primer* (Vol. 1). Peter Lang.

Knox, E. (2014). " The Books Will Still Be in the Library": Narrow Definitions of Censorship in the Discourse of Challengers. *Library Trends*, *62*(4), 740-749. https://doi.org/10.1353/lib.2014.0020

Knox, E. J. (2019). Silencing Stories. *The international journal of information, diversity, & inclusion*, *3*(2), 24-39. https://www.jstor.org/stable/48645178

Knuth, R. (2003). *Libricide: The Regime-Sponsored Destruction of Books and Libraries in the Twentieth Century*. Praeger: Westport, CT.

Knuth, R. (2006). *Burning books and levelling libraries: Extremist violence and cultural destruction*. Praeger: Westport, CT.

Lankes, R.D. (2020). Never neutral, never alone. *Journal of Education for Library and Information Science*, *61*(3), 383-388. https://doi.org/10.3138/jelis.61.3.2020-0007

Lerner, F. (2011). *The story of libraries: From the invention of writing to the computer age* (2nd Ed.). Bloomsbury Publishing.

Leung, S. Y., & López-McKnight, J. R. (Eds.). (2021). Knowledge   Justice: Disrupting Library and Information Studies through Critical Race Theory. MIT Press.

McDowell, K., Cooke, N., Del Negro, J., Patin, B., & Tenney, C. (2021). Storytelling and/as Resilience. Proceedings of the ALISE Annual Conference. https://hdl.handle.net/2142/110953

McDowell, K., & Cooke, N. A. (2022). Social Justice Storytelling: A Pedagogical Imperative. *The Library Quarterly, 92*(4), 355-378, https://hdl.handle.net/2142/115098

McKinnon, R. (2019). Gaslighting as epistemic violence: "allies," mobbing, and complex posttraumatic stress disorder, including a case study of harassment of transgender women in sport. In B.R. Sherman and S. Goguen (Eds.), *Overcoming epistemic injustice: Social and psychological perspectives* (pp. 285-302). Rowman & Littlefield International.

Mehra, B. (2021). Social Justice Design and Implementation: Innovative Pedagogies to Transform LIS Education. *Journal of Education for Library and Information Science, 62*(4), 460-476. https://doi.org/10.3138/jelis-62-4-2020-0094

Mehra, B. (2022). Toward an impact-driven framework to operationalize social justice and implement ICT4D in the field of information. *Journal of the Association for Information Science and Technology,* 1-18. https://doi.org/10.1002/asi.24693

Mohanty, C.T. (1988). Under Western Eyes: Feminist Scholarship and Colonial Discourses. *Feminist Review, 30*(1), 65-88.

Murray, S. (2020). Statement of Recommitment. *Alabama Department of Archives and History*. https://www.scribd.com/document/466721133/Archives-History-Statement of Recommitment

Noble, S.U. (2018). *Algorithms of oppression: How search engines reinforce racism*. New York University Press.

Oxford Advanced Learner's Dictionary (n.d.). Neutrality. Retrieved January 11, 2022, from https://www.oxfordlearnersdictionaries.com/us/definition/english/neutrality

Oliphant, T. (2021). Emerging (information) realities and epistemic injustice. *Journal of the Association for Information Science and Technology*, *72*(8), 951-962. https://doi.org/10.1002/asi.24461

Orlikowski, W., & Iacono, S. (2001). Research Commentary: Desperately Seeking the "IT" in IT Research—A Call to Theorizing the IT Artifact. *Information Systems Research, 12*(2), 121-144. https://doi.org/10.1287/isre.12.2.121.9700

Paraskeva, J. M. (2016). Curriculum epistemicide: Towards an itinerant curriculum theory. Routledge.

Patin, B., Sebastian, M., Yeon, J., & Bertolini, D. (2020). Toward epistemic justice: An approach for conceptualizing epistemicide in the information professions. Proceedings of the Association for Information Science and Technology, 57(1), e242. https://doi.org/10.1002/pra2.242

Patin, B., Sebastian, M., Yeon, J., Bertolini, D., & Grimm, A. (2021a). Interrupting epistemicide: A practical framework for naming, identifying, and ending epistemic injustice in the information professions. Journal of the Association for Information Science and Technology, 72(10), 1306-1318. https://doi.org/10.1002/asi.24479

Patin, B., Sebastian, M., Yeon, J., Bertolini, D., & Grimm, A. (2021b). The Mis-Education of the Librarian: Addressing curricular injustice in the LIS classroom through social justice pedagogy. In B. Mehra (Ed.), Social justice design and implementation in library and information science. https://doi.org/10.4324/9781003129219

Patin, B., & Youngman, T. (2022). The Sankofa Intervention: Combatting the Epistemicide of Parasitic Omission Through Civil Rights Literacy in Community Information Contexts. Proceedings of the ALISE Annual Conference. https://doi.org/10.21900/j.alise.2022.1067

Pinch, T.J. and Bijker, W.E. (1987). The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other. In Bijker, Hughes & Pinch (eds.), The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology (pp. 17-50). MIT Press. https://doi.org/10.1177/030631284014003004

Pohlhaus, G. (2012). Relational knowing and epistemic injustice: Toward a theory of wilful hermeneutical ignorance. Hypatia, 27(4), 715-735. https://doi.org/10.1111/j.1527-2001.2011.01222.x

Pohlhaus, G. (2020). Gaslighting and Echoing, or Why Collective Epistemic Resistance is not a "Witch Hunt". Hypatia, 35(4), 674-686. https://doi.org/10.1017/hyp.2020.29

Rapchak, M. (2021). Introducing Critical Librarianship to Information Professionals: Using Critical Pedagogy and Critical Information Literacy in an LIS Graduate Course. Communications in Information Literacy, 15(1), 140-157. https://doi.org/10.15760/comminfolit.2021.15.1.8

Risam, R. (2018). New digital worlds: Postcolonial digital humanities in theory, praxis, and pedagogy. Northwestern University Press.

Russell, S. and Williams, R. (2002). Social shaping of technology: frameworks, findings, and implications for policy with glossary of social shaping concepts. In Shaping Technology, Guiding Policy: Concepts, Spaces and Tools (pp. 37-131). Edward Elgar: Cheltenham. https://www.researchgate.net/publication/313728731_Social_shaping_of_technology_Frameworks_findings_and_implications_for_policy

Sebastian, M., Youngman, T., & Patin, B. (2022). Know Better: Combatting Epistemicide by Addressing the Ethics of Neutrality in LIS. Journal of Information Ethics, 31(2), 70-82. https://www.proquest.com/scholarly-journals/know-better-combatting-epistemicide-addressing/docview/2756262329/se-2

Scott, D., & Saunders, L. (2021). Neutrality in public libraries: How are we defining one of our core values?. Journal of Librarianship and Information Science, 53(1), 153–166. https://doi.org/10.1177/0961000620935501

Shohat, E., Stam, R. (1994). From Eurocentrism to Polycentrism. In Unthinking Eurocentrism: Multiculturalism and the Media (pp.13-54). Routledge.

Smith, M. and Patin, B. (In Production). Giving Voice through Reparative Storytelling: Correcting Racist Epistemic Injustices in LIS. Library Quarterly.

Spivak, G. C. (2023) Can the subaltern speak?. In Imperialism (pp. 171-219). Routledge.

Star, S. L. and Griesemer, J. (1989) Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology. Social Studies of Science, 19(3), 387-420. https://doi.org/10.1177/030631289019003001

Sutherland, T. (2017) Archival amnesty: In search of Black American transitional and restorative justice. Journal of Critical Library and Information Studies, 1(2), 1-23. https://doi.org/10.24242/jclis.v1i2.42

The Spirituals Project (2010, Feb. 19). "African Tradition, Proverbs, and Sankofa." University of Denver. https://web.archive.org/web/20110420131901/http:/ctl.du.edu/spirituals/literature/sankofa.cfm

Wajcman, J. (2000). Reflections on gender and technology studies: in what state is the art?. Social studies of science, 30(3), 447-464. https://doi.org/10.1177/030631200030003005

White, L. (1940) Technology and Invention in the Middle Ages. Speculum, 15(2), 141-159. https://doi.org/10.2307/2849046

Yeon, J., Smith, M., Youngman, T., & Patin, B. (2023). Epistemicide Beyond Borders: Addressing Epistemic Injustice in Global Library and Information Settings through Critical International Librarianship. *The International Journal of Information, Diversity, & Inclusion, 7*(1/2). https://doi.org/10.33137/ijidi.v7i1/2.39251

Youngman, T., Modrow, S., Smith, M., & Patin, B. (2022). Epistemicide on the record: Theorizing commemorative injustice and reimagining interdisciplinary discourses in cultural information studies. *Proceedings of the Association for Information Science and Technology, 59*(1), 358-367. https://doi.org/10.1002/pra2.759