

RESEARCH ARTICLE

Working Knowledge: Catalogers and the Stories They Tell

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Cataloging librarians make myriad choices every day as they create the metadata necessary for information retrieval. Each record represents an interaction between the cataloger and the systems they work within and, sometimes, against. Their work is highly constrained by standardized machine-readable fields and codes, controlled subject terms, and classification schema. In the exploratory research project Catalogers at Work, the authors use sound recording to reveal the complex yet hidden negotiations embedded in library catalog records.

Keywords: libraries; classification and cataloging; knowledge organization; sound ethnography; library labor

Listen to a cataloger at work: https://soundcloud.com/user-490938359/cataloging.

As heard in this sound clip from the installation *Archives of Sound* (an exhibit at the Library for the Performing Arts, New York Public Library), cataloging librarians make myriad choices every day as they create the metadata necessary for information retrieval. Each record represents an interaction between the cataloger and the systems they work within and, sometimes, against. Their work is highly constrained by standardized machine-readable fields and codes that enumerate every element of an item, from the number of pages to the format to the height, width, and depth. Catalogers also encode what the book is about through the application of subject terms drawn from a controlled vocabulary and the assignment of call numbers often based on a standardized classification scheme. Like subject headings, these ordering systems are standardized and widely adopted; a book will likely have the same call number across multiple libraries that use the same classification system. Each catalog record is the product of a complex yet hidden negotiation between a cataloger and the constraints of library systems and practices.

In the exploratory project *Catalogers at Work*, we draw on ethnographic methods to capture the crucial, complex, detailed, and yet largely invisible labor of resource description in libraries. By recording alongside catalogers as they work and documenting what is primarily an internal dialogue, we surface the knowledge-making that librarians do each day, revealing the stories, the frictions, the people, and the labor behind catalog records and how they are constructed. *Catalogers at Work* amplifies the voices of these expert "metadata cartographers" (as one informant described his work) as they decipher what it means to make the world's knowledge findable within an ever-growing universe of information.

The actions of the individual cataloger are amplified when records are shared in cataloging utilities such as the Online Computer Library Center's (OCLC) union catalog, WorldCat, or corporate systems adopted by library consortia. Indeed, the efficiencies afforded by such systems are part of the sales pitch for ExLibris's library services platform (LSP) Alma: "Information can be entered once and then distributed to the member institutions. This saves time and ensures that the information is consistent across all of the institutions" (ExLibris 2021). It also means that the decisions of an individual cataloger can reverberate across library systems worldwide, sedimenting a particular point of view across cultures, time, and space. According to OCLC, librarians using their WorldCat product cataloged more than seventeen million titles in

2020, 95 percent of them copied using existing WorldCat records (OCLC 2021). Documenting original cataloging as it happens can reveal the ways these large-scale discovery systems are built: cataloger decision by cataloger decision.

Textual analysis of catalogs and classification schemes provides ample evidence that widely adopted knowledge organization systems such as the Dewey Decimal System (DDS) and Library of Congress Classification Scheme (LCC) codify racism, sexism, imperialism, and other forms of exclusion (Olson 2002; Adler 2016, 2017). Library and information studies (LIS) literature demonstrates the harm and invisibility caused and perpetuated by these systems since their inception (Helton 2019, 2019; Higgins 2016; Yeh and Frosio 1971). Particularly in an era of increasing automation, it is crucial to study *how* metadata is designed and assigned (Noble 2018; Bowker and Star 2000; Eubanks 2018). The systems and controlled vocabularies catalogers use are powerful tools, but what matters for this analysis is what catalogers decide to do with them. Knowledge organization schemes are what Star (1999, 379) calls "information infrastructure," the kind of "boring things" that are determinative of social life. Star (1999) argues that these structures are invisible except to those who build and maintain them. Like internet cables, sewer pipes, and freeways, people who rely on these systems rarely notice them until they break (unless the system's design signals that it was never built for them in the first place).

In *Catalogers at Work*, rather than reading catalog records as a text, we observe and analyze the decision-making process behind cataloging itself. This process enables us to better understand how catalogers negotiate with these systems as a necessity of doing their daily work. How do knowledge workers exercise their own agency within the systems that constrain them? Which conditions impact a cataloger's decision to reproduce or resist normative knowledge infrastructures? With a seemingly endless backlog of materials to catalog, how do catalogers make decisions that shape interactions with and ideas about items for generations to come? What forms of knowledge do catalogers create? What do the records they produce tell us about the world? And what do catalogers know that is persistently absent from the documentation they accumulate in information retrieval systems? By centering the cataloger's role in knowledge production, we reposition our analytic lens from the systems as they exist on paper and inside machines to the individual cataloger and their process. Understanding how catalogers select, assign, classify, and describe offers us new ways of thinking through how libraries can contend with inherently flawed systems, their constraints, and the problems they pose.

The Process

Documenting and analyzing the cataloging process requires spending extended lengths of time with catalogers at work. To have a close and more nuanced understanding of a cataloger's experience, the material conditions and structural forces that shape their work, and *how* they make decisions, we employed field observation and sound recording. Sound recording has long played an important role in ethnographic research. Early twentieth-century ethnographers in the United States recognized its value for documenting, analyzing, and preserving voices, sounds, and stories (Brady 1999). Recent sound ethnographies have moved beyond the goal of documentation to employ sound recording as an investigative method to analyze the politics and power of sound (Cox 2012, 2016) and the role that sound plays in constructing the everyday (Cusak 2018; LaBelle 2010). Anthropologists have also used sound recording to address the challenge of understanding and capturing individuals' inner expression (Irving 2011, 2016) and in attempts to better communicate the lifeworlds of the communities they collaborate with (Feld 1990; Rice 2013).

Cataloging is often a solitary practice, carried out in relative quiet through an internal dialogue of the cataloger. As noted by cognitive scientist Peter Carruthers, "many people seem to spend a good deal of their waking activity engaged in 'inner speech,' with imaged natural language sentences occupying a significant proportion of the stream of their conscious mentality" (2002, 657). This inner speech constitutes the cataloger's decision-making process but is rarely documented within the record or elsewhere. In *Catalogers at Work*, we use sound recording to document and explore this otherwise invisible aspect of catalogers' labor by asking catalogers to think aloud as they work. In their 2019 study, Clarke and Dobreski employed a think-aloud protocol and audio recording to better understand how catalogers pull from past knowledge and experiences to do their work. In *Catalogers at Work*, we used a similar approach to understand how catalogers' decisions are made and to uncover alternative texts to the final records. In sharing edited audio compositions, we bring listeners closer to catalogers' experiences and the work they do.

Sound recording also produces new insights into this kind of labor. When listening to catalogers at work we can hear the material constraints through the tapping of keyboards and clicks of the mouse

and the pings and dings that accompany opening and closing cataloging utilities before and after entering a record. The affective dimension emerges through groans of frustration at inadequate subject language and sighs of satisfaction when a piece of the catalog puzzle falls into place. Scholarly research in this field has largely documented the stories catalogers tell about their work through interviews and surveys as well as textual analyses of catalog records and classification structures. Using sound as a method facilitates a different understanding rooted in the workstation and at the keyboard of catalogers at work.

Due to our interest in investigating how catalogers contend with bias in classification and cataloging through their praxis, we initially identified cataloging librarians who claim to practice or have interest in critical cataloging as potential research collaborators. These catalogers share our analysis of the role that bibliographic metadata plays in reifying existing power structures, bringing questions of power and representation to their cataloging practice. We later expanded our scope to include catalogers who did not profess an explicit interest in critical cataloging but who have extensive experience and expertise in the subject areas they describe. Even when catalogers claim to be neutral actors, they participate in the development of systems that represent a particular point of view; like all library workers, they cannot remove themselves, institutional priorities, or the constraints of standardization and time from their work.

After these catalogers agreed to participate in the project, we met with each one individually to sit with them and to listen, record, and observe them as they worked. Each meeting started with a brief interview to learn more about the cataloger's work and approach to cataloging. The interview also allowed time for the catalogers to become comfortable with talking while being recorded and working in the company of others. Once catalogers began to work, they thought aloud, walking us through their approaches and explaining some of what they did and why they did it.

Some of our collaborators selected items that they had a personal interest in cataloging and talking about while others chose to catalog any item that was in their queue of items to be cataloged. All of the catalogers we collaborated with were producing MARC records for different items. Rather than comparing the records of two different catalogers, we sought to document the process of cataloging itself. Each session lasted roughly one to two hours. In most cases, we were able to document the creation of only one to two catalog records due to the time required to author complete records.

After the interviews, we used Descript audio-editing software to generate automated transcripts. We read through each transcript and listened back through the recordings, uncovering hidden narratives and themes that recurred in relation to the catalogers' decision-making. While the transcripts provide a rich text with many options for analysis, below we highlight themes related to the labor of cataloging and classification work, the trouble with constraints, and the knowledge produced by catalogers as they work, even when it cannot be captured in the record itself.

Limitations to Project

Because our methods are time intensive and the pandemic prevented us from meeting catalogers in person, this is an exploratory and small-scale project. We worked with art catalogers, rare book catalogers, a zine cataloger, and a music cataloger. Each of the six catalogers who participated in the project was employed either part or full time by well-resourced university libraries in the New York/New Jersey metro area and all served patron populations that included advanced doctoral-level students and research faculty. They all had access to cooperative cataloging programs and cataloging software. We imagine that we would gather quite different stories when recording catalogers without access to utilities like OCLC—a subscription to its cataloging service is priced beyond the reach of special, school, and many public libraries. None of our informants was the only cataloger in their organization. Catalogers in settings with less institutional support likely face further constraints on their work. The informants were majority white, reflecting the dominant whiteness of the field as well our own segregated professional networks. Further iterations of this research must contend with these limitations, centering the work of BIPOC catalogers and soliciting the experiences of catalogers in a broader range of institutional settings to surface different perspectives related to cataloging work.

The open-plan office where some of the catalogers work was not conducive to the recording process. Due to the focus that metadata workers require to do such detailed work, talking was discouraged in these spaces. In order to record with catalogers who normally work in open-plan offices, we had to identify alternative locations, and worked with library IT teams to install cataloging software on a computer located in a private office space. The catalogers were impacted by working in unfamiliar environments without their typical desk arrangements and technical set-ups, like shortcuts and different keyboards. If Clarke and

Dobreski (2019) are right that repetition is a structuring force of cataloging work, these changes likely impacted the ways these records were generated.

Hidden Narratives and Underrecognized Labor | Pushing Boundaries and Making Time

A dizzying array of rules and regulations guide cataloging practice with the goals of saving time, maximizing efficiency through consortial cataloging, and ensuring consistent description across records. As discussed by Diao (2018) and Hasenyager (2015), however, content analysis reveals that no two catalog records are exactly the same. Observing and recording with catalogers reveals counter-narratives that lead to variation across records and the stories that catalog records tell. We include here transcribed excerpts from the audio recordings that illustrate choices catalogers would have made if they could override the power of authorized headings, classification schema, and cataloging rules.

One cataloger walked us through her process as she attempted to accurately describe an artist's book:

In this case, I'm having to use [the heading] *Neural networks -- Computer science -- Pictorial works . . . Algorithms in art* has not been established. There is *Algorithms*. There seem to be a lot of terms that reflect what this artwork is doing better. And [the item] is not really showing the algorithm, it's showing the result of running this code. So, I just don't know about using that heading. And we already have it in this note here, so maybe we want to use *Digital art*. So for digital art the LC heading is *Computer art*, which I always thought was so weird because nobody in the twenty-first century, especially in 2019, walks around [saying], "I'm a computer artist."

The completed record is in contradiction to the cataloger's judgement, reflecting the ways in which she is constrained by the controlled vocabulary available to her. While she searches for alternative headings, she finds nothing suitable in the vocabulary set and must compromise, using what she finds to be an outdated and, in this case, irrelevant term. Once this record is complete and entered into the catalog, the library user who encounters it will likely understand the metadata to be retrograde, failing to keep up with technological changes and subject-specific shifts in terminology. Listening to the negotiations the cataloger engages in between the object and the system, we hear something different. Metadata reflects a compromise between what the cataloger knows about an item and the existing system into which she is bound to embed it.

As part of this compromise, the cataloger decides to attempt to address the inadequacies of the *Computer art* subject heading by adding notes in the 500 field of the MARC record, a field that allows catalogers to add "general information for which a specialized note field has not been defined" (Library of Congress 2003):

I have a feeling that because it's working with such new technology in a very artistic way, that adding a text-based note and a 500 field will allow more terminology to come up in a keyword search and it will also just give a person a bit more information if they encounter this catalog record and are trying to figure out what it's all about.

The cataloger then visits the artist's personal website, where she can copy information provided by the artist about the project and resulting artist book, and pastes these details, in addition to information about where and when these details were sourced, into the 500 field. The cataloger's subject expertise and intervention in this record led to a more accurate representation of this work. The audio recording, alongside the completed record, exemplifies the negotiations catalogers make when the standards fail to capture the essence of the items they describe.

Sometimes the problem is worse than irrelevancy. When catalogers encounter materials they find offensive, both their training and the demands of standardization require them to avoid commenting on what they describe. Recording catalogers as they process this type of material reveals deep concerns they have when encountering items that contain imperialist perspectives:

The collections here have a lot of missionary-related publications that often describe Africa, Asia, the Pacific Islands, and areas where they were doing missionary activity from the perspective of European and North American Christianity. It can be really challenging to try to account for that. The subject headings that I will likely use are neutral on something like that; they might just say

Travel -- Egypt -- Nineteenth century. I think the way that I've been trained in library school would be to not editorialize and say, "Hey, this is racist." It might just be a given when dealing with historical materials. So I'm not even sure exactly how I would convey or contextualize narratives like this that can be pretty problematic and challenging and need that extra context.

In this case, we see a cataloger facing a choice. He can use the controlled vocabulary available to him to complete the record, thereby reifying the silence of the catalog on the problem of US imperialism. The current alternative is less clear. The cataloger could leave the materials undescribed, hiding them from the historical record, or he could wait to catalog the item until vocabularies expand to account for the context of the publication. Even when a librarian wants to contextualize the narratives expressed and represented in the catalog record, perhaps by making notes in a 5XX field, cataloging tools and training leave many librarians unequipped for how to actually address this. In this instance, the completed record tells one story about a world where imperialism is reduced to travel. Documenting the process of metadata production tells us something different, rendering the record as a site of struggle between the library worker and the structures that embed hegemony in the tools of information organization.

Catalogers also must contend with changing standards that produce more work for catalogers even as the changes make information more legible for users. The shift in cataloging content standards from *Anglo-American Cataloging Rules*, second edition (AACR2) to *Resource Description and Access* (RDA) has meant negotiating between these two systems, which is made more complicated by automation. Catalog records that were originally cataloged following AACR2 are automatically updated to include RDA elements when retrieved from OCLC Connexion. As one cataloger noted,

What happens in OCLC [Connexion] is that these fields are now being automated, automatically populated. Essentially these are RDA elements, so it makes the record hybrid by default.

Here we see the cataloger facing a new constraint: automated metadata that requires significant intervention in order to create a consistent record. He must add elements to a record that is ostensibly already complete, even though the practice at his library is not to update records to RDA. This intervention takes human labor that depends on the presence of skilled catalogers, an investment that libraries may choose not to make. When a cataloger imports a record from Connexion into local holdings, the automated process is not as seamless as those who envision technology as a labor-saving device might suggest. Recording the process of cataloging tells the story of what machines fail to do.

Sometimes catalogers make a conscious choice to allocate additional time when cataloging certain items. They take on this added work often without recognition for their efforts. In some cases, catalogers are further constrained by institutional quotas and other forms of pressure that make it difficult or impossible to choose to take extra time with a given record; it is not always possible for every cataloger to decide independently how to spend their time at work. Observing catalogers at work helped us understand what shapes their decisions about whether or not to allocate their time. Despite the supposed efficiency enabled by shared standards, the time of a cataloger remains her own, a resource that she deploys in response to concerns beyond speed. A library's underlying values and priorities often impact these decisions; a cataloger's personal values and interests also play a significant role:

Sometimes it's a matter of judgement both of myself and the curators who assigned the work to me. Some things just don't deserve or warrant the extra time that I would spend on it.... There's shelves and shelves of material that's been uncataloged. It's better to get that basic record than to spend lots of time on one object that might not get used much.... But something like this that's unique usually warrants more time because it's not like anything else and to document its intactness in case anyone were to come and take a page, the record would show that it's supposed to have eighty-eight pages.

Here *uniqueness* is deemed worthy of careful description and documentation over another item that is not expected to be widely used. The decision that an item is only worth basic-level description may in turn seal that item's fate, erasing its complexity from the bibliographic universe. Hidden in the metadata is also a record of the tension between catalogers and other stakeholders over how best to prioritize the use of catalogers' time.

In addition to institutional priorities, professional and personal interest plays an important role in which items are selected for enhanced description. Sometimes catalogers allocate additional time in order to

highlight stories that they think would ordinarily be left out of the record. One example is the role of women in nineteenth-century material print culture:

It was very likely that this was a woman who was doing the binding, which in the nineteenth century was less common. . . . I spent some extra time on the authority record for this binder because she wasn't well represented . . . historically, a lot of women were active. Widows of printers and binders would sometimes take over their husband's business under his name. . . . They might be named as the printer and in their own right, but usually they were working under their husband's name. . . . [It's] worth it, I think, to show that women were doing the work in a mostly male field at the time. It's part of the practice that I've come into, of wanting to sort of offset the erasure of women and especially in the antiquarian book trade and book history. . . . I put additional information in her authority record, did the research to find her birth and death dates, 1898–1989, [and] indicated that she was active.

This cataloger has a personal interest in book printing and wants to surface the hidden contributions of women printers. He makes it part of his practice to enhance their authority records and enter their names in a record even though it is not required information. The cataloger incorporates this information into the consortial record software, OCLC Connexion, making this enhanced record available to other participating libraries. The individual cataloger's power to quietly intervene in the historical record is amplified as other cataloging librarians may opt to work from the record he created when they find it in OCLC Connexion. Observing the cataloger in action surfaces how his own interests make their way into the record and his otherwise hidden labor.

Catalogers also sometimes allocate additional time to reflect on how their work may impact the creator of the item they describe. In the excerpt below, a cataloger reflects on the ethical considerations of linking a non-binary person's authority record to other item records that include a name the author no longer uses:

I will contact them [the author] to ask if they would want me to link [their authority record] to the record that's connected to some of their other works, because if they did not want people finding out that name, I feel like it would be unethical for me to provide a pathway, to give people access to that name.

The cataloger's thought process illuminates how the common cataloging practice of linking records together with the goal of enhancing access does not take individuals' privacy and needs into account. While other authors have pointed out the harm that cataloging practices can cause LGBTQ communities (Billey, Drabinski, and Roberto 2014), in the recording and transcript we uncover the cataloger's choice to provide additional care and labor. She took time to learn more about the creator before making assumptions that would then become memorialized in authority records. In the above example, the cataloger's personal values are supported by the institution where she works. She prioritizes the author's right to be represented in the way they want instead of following cataloging norms in order to more quickly process the item. This work is invisible to the user retrieving the item in the catalog. Another cataloger or institution may not take this time, an active decision that would also be absent from the record. Metadata alone cannot tell us the entire story.

In addition to helping offset erasure and taking time to account for creators' privacy and identity, catalogers make time to enhance user access and challenge ideologies about what merits description in the field. Decisions to do this work can also draw from a cataloger's subject expertise or emerge from a cataloger's active participation in other communities. This can be especially true when those contexts share an interest in names and naming, classification and order, preservation and dissemination. In the excerpt below, the cataloger takes time to describe the cover of an item in greater detail than required:

And for the cover, I'm going to say *two people on a blue bridge at moonlight*. Two people may seem like a small element on the cover. I got this idea [to describe the cover in detail] from librarians at the Paper Cut Zine Library. They got sick of people always coming in and saying, "I want the zine with the yellow cover," and [librarians] just rolling their eyes. So instead they were like, let's capture that information so we know which is the zine with the yellow cover. I feel like that's a really great intervention because librarians love to complain about people asking for things in the wrong way. And you know, who are we to say what's the wrong way?

The cataloger's choice challenges common professional perceptions and enables item discovery for a wider range of potential readers. We also see the cataloger choosing to document information that is

clearly sought by patrons and librarians but that is normally omitted from the record: the color and design of the cover. In this way the cataloger intervenes in standard practices on behalf of a form of knowledge that is ordinarily excluded. While most librarians would empathize with the common patron request for a book by color, the impulse to include this information in the catalog record is drawn from this librarian's participation in the zine community. The communities that library workers are involved in outside of the field can impact their cataloging decisions, reflecting values and commitments from other social locations.

A cataloger's personal style preferences and curiosity can also lead to more comprehensive and, sometimes, inclusive records. While cataloging is sometimes perceived as dull, monotonous labor (Mugridge 2008), catalogers find joy and pleasure in their work and in creating what they perceive to be good records. One cataloger prefers to spend extra time adding punctuation that updated cataloging rules no longer require:

I'm kind of a stickler, kind of old school . . . I kind of go, all out. Not really, but I like to adhere to the older standards. There are a number of fields in which you don't have to use punctuation anymore. But I just think that's weird. So, I like to include it all.

When catalogers find a pre-existing record in OCLC Connexion that is missing some details but is otherwise a good record, they feel motivated to find the missing information to complete the record. For example, one of the catalogers we worked with spent quite a lot of time trying to track down the evidence needed to be able to add a creator's name in the 100 field for an older book:

Without any real authority file or authorized name, all I have is this, which is maybe [what] the book dealer wrote as a reminder that this is who the author is, [but] this could actually also be the former owner. So I don't know for sure. I would want to add a creator, but it doesn't look like we're going to find one. I may come back to it so I can add the author's name. But first you have to find this [reference] resource and then this citation number 1662. I don't have that resource.

Lack of immediate access to a reference resource prevented the cataloger from completing the record in the time that we were together, yet his desire to track down the missing details was strong enough that he was committed to doing the labor-intensive research required to add the missing details to the 100 field. This cataloger's determination to complete the record speaks to the satisfaction they find in solving cataloging puzzles:

My supervisor and I at the time had sort of talked about it as almost being like doing a crossword puzzle. That there's a satisfaction in putting the pieces in, when it all comes together and you figure out something new and it will fit in the parameters that you have to follow. When you get the right information and put it in the right place. It can feel satisfying to get the complete description of something and make it accessible to people.

Cataloging is pleasurable work, and much of that pleasure comes from making it possible for patrons to locate materials in the library. At its root, this is what all catalogers do: make knowledge accessible through the construction of metadata that responds to systemic constraints and shifting ways of understanding the world.

Sounding the Radical Catalog | Sharing Through Sound

In our efforts to amplify catalogers' labor and to widen the conversation about bias in knowledge organization, we utilized some of the recordings from our research sessions and a recorded conversation between the authors and collaborators to create a sound composition titled <u>Sounding the Radical Catalog</u>. In the edit, we aimed to include audio segments that could help listeners grasp the scale of cataloging work, the power in description and what's at stake. In eight minutes, <u>Sounding the Radical Catalog</u> offers simple explanations of what cataloging and classification are and what they mean for library users. Listeners hear the external and internal sound worlds that catalogers inhabit as they carefully craft each catalog record. In composing the piece, we added in additional voices of librarians reading Library of Congress classification numbers and subject headings. These voices were layered to play simultaneously to help listeners grasp the overwhelming number of codes and rules that catalogers select from. The cuts between narrators move quickly to convey the pressure catalogers often feel to create catalog records efficiently; we hear their fingers quickly typing away and scanners beeping while narrators contemplate the philosophical questions and

complexities of the work they do. In making this invisible labor audible, we center the humans whose decisions and practices are responsible for helping make library materials discoverable. Listeners hear that people, not machines, do this work and are left to contemplate the power that librarians have and, in some ways, *do not* have to shape how people connect with the items in their collections. *Sounding the Radical Catalog* is our own contribution to the counter-narratives that catalogers produce every day.

Sharing *Sounding the Radical Catalog* at conferences, in classrooms, and in exhibitions helps dismantle the idea of library descriptions and classifications as absolute, unchangeable authorities and proposes the idea that they can be challenged and reimagined. We want to promote dialogue with communities about the social construction of these practices and encourage accountability and action in libraries. The documentary film *Change the Subject*, which details the story of student protests at Dartmouth College regarding the subject heading *Illegal aliens*, helped raise nationwide discussion about white supremacy in classification, prompting the Library of Congress to finally take action. That the initiative to change the heading was later halted by the House of Representatives indicates that cataloging and classification work is the work of power, and that pushes for equity in this work produce struggle in political arenas well beyond the library. Audiovisual media offers opportunities for communicating about these issues in new ways, bringing long-standing concerns around resource description to broad audiences outside of LIS. Sound can help make it matter. The authors anticipate that fostering wider engagement with these issues can help people understand how cataloging and classification have impacts that reverberate well beyond narrow professional concerns around information retrieval. We want libraries to be in conversation with communities as they endeavor to develop more collaborative and inclusive models of metadata creation.

Conclusion

The metadata that catalogers select and place in a record can uphold or disrupt the "master narrative" of official knowledge organization systems, quietly creating meaning for patrons as they navigate catalogs and library spaces based on the directions and decisions that catalogers inscribe. In documenting the process of cataloging, *Catalogers at Work* makes audible the power that metadata workers have to reproduce and resist ideological formations as they craft the stories that catalogs tell about the world.

In recording with catalogers, we provide evidence of the daily frictions between the needs to adhere to biased standards, to process items quickly, to be accurate and ethical. While some cataloging librarians consciously push back against oppressive systems to the extent possible within these constraints, what we hear is people trying to come to terms with imperfect options and lack of direct support and advocacy from the wider profession. Understanding the limits of what individual knowledge workers can do is important, as Star (1999, 389) explains:

In information infrastructure, every conceivable form of variation in practice, culture, and norm is inscribed at the deepest levels of design. Some are malleable, changeable, and programmable—if you have the knowledge, time, and other resources to do so. Others . . . present barriers to users that may only be changed by a full-scale social movement.

Advocating for changes to authorized terms and classification systems expands the potential for telling new metadata stories as language changes in response to professional pressures. But the problem of bias in our information systems is inherent to the project and cannot be effaced by revision alone (Drabinski 2013). Addressing the problems surfaced by catalogers as they describe their work means articulating the ways that metadata construction is shaped by broader social forces. These forces include increased automation of human work, monopolies that lock libraries into corporate information systems, and cuts to technical service departments and libraries generally, alongside the structuring effects of white supremacy, patriarchy, and capitalism. Library workers who describe and order materials contend with these forces each day, resisting where they can, accommodating where they cannot. The stories embedded in the metadata they produce tells us one story. The story they tell about their records is crucial too, one that can shape where knowledge workers might go next, if we take the time to listen.

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Competing Interests

The authors declare that they have no competing interests.

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