Core Course Paper

Universal Classification Standards and Indigenous Knowledge

Written for *IS-212: Values and Communities in Information Professions* with Prof. Ramesh Srinivasan, Spring 2018

For the final assignment in this course, we were tasked with writing a persuasive essay that incorporated at least four of the assigned readings from throughout the quarter. Having spent years working in libraries helping patrons navigate the Library of Congress Classification and Dewey Decimal Classification systems, I was especially excited to read the oft-cited critiques of these systems by Hope Olsen and Emily Drabinski. For the final paper, I decided to build on these critiques by investigating the viability of alternative classification systems. More specifically, I brought in a discussion of the Brian Deer system, rooted in Indigenous ways of knowing, as a case-study for how these alternative systems might be designed and implemented. By incorporating Prof. Srinivasan's work on community-based, collaborative design, I attempt to outline how these alternative classification systems might be developed and supported by LIS professionals. This paper reflects my background in library work and the development of a more critical and ethical lens on the basic mechanisms of classification.

Universal Classification Standards and Indigenous Knowledge

In this paper, I examine library classification systems and argue that librarians working in marginalized communities should adopt community-based, collaborative methods to design alternatives to the dominant classification systems. More specifically, I suggest that by theorizing and developing alternatives to Dewey Decimal Classification and Library of Congress Classification, Library and Information Studies (LIS) workers can better serve Indigenous and other marginalized communities. Additionally, I stress the pedagogical value of direct community engagement with these traditionally taken-for-granted systems. Through an examination of the challenges, limits and potentialities of such a project, I attempt to lay the theoretical foundation for collaborative, community-based classification system design. After outlining the fundamental problems lying at the heart of DDC and LCC, I will examine a successful example of an alternative classification scheme: A. Brian Deer's system of classification rooted in Indigenous ways of knowing. I will then turn to case studies of collaborative, community-based technology design in other contexts to argue that similar approaches could be adopted in library classification processes. Finally, I will address the many limitations, challenges and implications of such an approach toward library classification schemas.

Classification allows us to develop standards that organize our knowledge into manageable and navigable parts. By creating standard naming practices, we are able to sort chaotic streams of information into fixed, stable categories. As these categories become more widely accepted and deeply entrenched, they also tend to recede from view, appearing as universal and neutral parts of the environment. The more widely accepted a standard becomes, the harder it is to notice the inner-workings of the system that created it. Beyond dictating the spatial location of materials, and structuring the organization of a library's physical space, library classification systems also articulate a specific way of organizing knowledge and understanding the world. Lying at the very core of the library and information studies (LIS) profession, classification and cataloguing systems have always played a vital role in the way knowledge is sought and retrieved by library users. Thus, all library workers, whether they are involved in the cataloguing process or not, should be aware of the way these systems structure library space and the interactions within it. One way they can do this is through direct critical engagement with the most popular and widely used library classification and cataloging systems: the Library of

Congress Classification (LCC), Library of Congress Subject Headings (LCSH) and Dewey Decimal Classification (DDC).

Over the last 40 years, a growing body of literature within LIS has developed around critiquing these systems. By exploring the limitations, biases and failures of LCC and DDC, LIS scholars have begun to unpack the ways these classification systems entrench existing power structures and further marginalize already disempowered voices in the library. In "The Power to Name: Representation in Library Catalogs" information studies scholar Hope Olson systematically shows the ways both DDC and LCSH are built around "presumptions of universality" that end up making information about non-mainstream subjects harder to find. While influential librarians such as Sanford Berman had critiqued these systems by pointing out the biases and errors in naming practices, Olson goes a step further to challenge LCSH and DDC at their very core.

The fundamental problem with both LCSH and DDC, as Olson sees it, is two-fold: 1) the drive to reduce the complexity and subjectivity of names to a single universal controlled vocabulary and 2) the imposition of linear, top-down hierarchical relationships between concepts. Regarding the first issue, language standardization, Olson argues that "in imposing controlled vocabulary we construct both a limited system for the representation of information and a universality/diversity binary opposition." [1] This binary opposition means that in order to create a system that is universally applicable (as both Melvil Dewey and Charles Cutter intended) the ability to fully represent diversity must be sacrificed. In other words, by appealing to some universal and standard application of names, these systems erase more nuanced difference and diversity. For instance, while there may be hundreds of ways to express a complex identity-category like sexuality, controlled vocabularies such as the LCSH insist on limiting this fluid, ever-evolving language to a fixed, standard set of terms. Within LCSH, terms may be added or removed, but nevertheless the efficiency of the classification system itself is reliant on minimizing the different ways to express subjects. Olson shows how this erasure of difference is inherent and necessary to the project of standardization.

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[1] Olson, Hope A. "The Power to Name: Representation in Library Catalogs." *Signs* 26, no. 3 (2001): 639-68. http://www.jstor.org/stable/3175535.

Regarding the second major issue, these systems' hierarchical structure, Olson uses the example of DDC's instruction for the classification of social groups to show how biases are manifested. By ordering the ways in which social groups are indexed together, the DDC creates a "hierarchy of oppressions" which results in material related to some groups always being gathered together while material related to other groups is dispersed throughout the collection. Working through this example, she shows how "material focusing on black youth cannot…be classified with material on black people in general[2]." The implications of this structure are clear: the rigid rules for the groupings of certain material means that some subjects will be quite easy to access and to browse, while others will require immense work for the library patron. Like DDC, Library of Congress Classification (LCC) also exhibits bias through its structural hierarchy. For example, LCC locates materials about transsexuality under the classification of *sexual and psychosexual conditions*, which "suggests that transsexuality is a psychological disorder that can be remedied with treatment, rather than just another way of existing in a gendered world."[3] Moreover, this classification "ghettoizes" the vast array of subjects and issues related to "transsexuality" into the section dealing with medical and psychological disorders – a non-obvious place to look for people who do not share this misconception. The problem here is both practical (information is harder to find) and ideological (the classification expresses a biased and problematic world-view). Olson's argument shows how these differences in accessibility are built into the nature of both LCC and DDC.

Furthermore, by closely examining the foundational documents of these systems, Olson identifies that both were developed to ease information access and retrieval for an assumed generalized, ideal, rational "public." This means that LCSH and DDC were designed not to accommodate for multiple ways of knowing, but to meet the needs of users with a "unified perspective and a single way of seeking information."[4] For Olson, LCC and DDC are not simply problematic because they express some bias, as all classification systems must, but rather, that they unfairly harm and erase people outside the "mainstream" power structures for which these systems were designed. Cataloguing and universal standardization necessitates the erasure and

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[2] Ibid, 655

[3] Drabinski, Emily. "Queering the Catalog: Queer Theory and the Politics of Correction." *The Library Quarterly: Information, Community, Policy* 83, no. 2 (2013): 94-111. doi:10.1086/669547.

[4] Olson, "Power to Name," 642

obfuscation of difference, and this negatively effects members of social groups not in power. She argues that "the fundamental presumption on which our practice rests disproportionately affects access to information outside of the cultural mainstream and about groups marginalized in our society" [5] In other words, because these systems are driven by the desire to appeal to the most amount of people simultaneously, they obscure information about the least popular or sought-out topics and they ignore other ways of organizing knowledge. These marginalizing biases are then learned by library users who interact with these systems seeking materials.

The biases in these systems are not merely technical problems that make non-mainstream material harder to find, they also teach these biases to library users, imposing a hegemonic worldview rooted in racist, settler-colonial, late 19th century assumptions. As librarian and critical cataloguer Emily Drabinksi explains, "as users interact with these structures to browse and retrieve materials, they inevitably learn negative stereotypes about race, gender, class, and other social identities.[6]" Examples of these stereotypes and assumptions abound in both DDC and LCC and have been documented extensively within LIS literature. Perhaps most famously, DDC's classification of religion is extremely skewed towards favoring Christianity: while the entirety of the 200's are devoted to religion, issues related to Chrisitianity take up the entire 200-289 range and all non-Christian religions are classified within the 290s alone.[7] My goal here is not to prove or fully analyze the many problematic qualities and biases of these dominant systems, but rather to express where and how alternatives might emerge.

In "Queering the Catalog: Queer Theory and the Politics of Correction," Drabinski offers a new approach to the issues identified by Olson. Building on a Foucaltian conception of knowledge as discoursively produced, Drabinski challenges the way librarians and catalogers have attempted to "correct" the biases of LCSH and DCC. She argues that the critical cataloging movement in LIS has "addressed the problem of bias in these structures primarily as a functional problem: materials are cataloged incorrectly, and they can be cataloged correctly with the correct pressure."[8] Her argument, building out of Olson's critique, suggests that rather than applying pressure to correct the biases and inaccuracies of these systems, librarians should "leave intact the traces of historicity and ideology that mar the classification and cataloging project." And in

[5] Ibid, 640
[6] Drabinski, "Politics of Correction," 97
[7] https://www.oclc.org/en/dewey/features/summaries.html
[8] Drabinski, "Politics of Correction," 95

this way, classification and cataloging schemes can become a site of collaborative learning and dialogue between public-facing library workers and library users. Through the lens of queer theory, she suggests that these practices point to "a project of dialogic pedagogical interventions that push all users to consider how the organization of, and access to, knowledge is politically and socially produced.[9]" So, rather than clinging to the project of modifying the limits of standard classification systems, Drabinski suggests librarians should foreground those limits to spark a greater understanding of the way these systems function.

While Drabinski's proposed "critical interventions" offer valuable tools for library workers in mainstream, large institutions, they do not address the needs of communities with smaller, highly specialized collections. For example, a librarian/cataloger at a small library dedicated to the study of Eastern religions would most likely need an alternative system to DDC in order to more accurately express the range of materials in the collection. Even more pressing, both Olson and Drabinski fail to offer any solutions for indigenous communities that exhibit radically distinct ways of knowing that are fundamentally incompatible with DDC and wholly ignored by LCSH (as will be discussed). Every library classification system reflects a specific subjective worldview. As both DDC and LCC systems grew out of the same general epistemological and cultural assumptions, (late 19th century American White Cis-gendered Hetero colonialist and male) they tend to reflect very similar and overlapping worldviews. Both are built out of rationalist, universalizing assumptions that obscure diversity. They both value universality, convenience and standardization above flexibility, specialization and specificity. So, why are these systems still so pervasive and prevalent? Why, walking into almost any public library in the United States, will you see material organized in roughly the same way? Obviously, there are huge benefits to the interoperability of library classification systems and I will return to those issues later, but for now I wish to stress the value of questioning these systems at their core.

The fact that these dominant systems are biased against women, people of color, indigenous people and other marginalized identities is more than just an issue of information organization and design; it reflects the deeper power imbalances in the way these systems were built and then spread into libraries worldwide. For, as Srinivasan suggests, "classification systems tend to reflect the biases and ontologies of those with the power and privilege to design

[9] Ibid, 101

and circulate such systems."[10] It is clear then that we must not only change how these systems function and how we can work within them, but we also must imagine and work towards creating radically new ways to "design and circulate" such systems. In other words, if LIS workers are serious about creating more equitable and fair classification systems for library materials, then the solution necessitates shifting who has the "power and privilege" to build these systems in the first place. Beyond shifting responsibility to the reference or user-services librarian to critically engage with these systems, we must allow other ways of knowing and organizing knowledge to gain voice. Rather than viewing LCC and DDC as fundamentally neutral, essential parts of our profession, we should view these systems as the dated, marginalizing, and homogenizing forces that they are. By shifting the perception of these systems, perhaps a more generative and creative process of classification system design can emerge that would better serve those communities most marginalized by DDC and LCC.

While the problems and biases of mainstream cataloging and classification systems have been extensively documented and debated within LIS, the practical solutions to these issues are less clear. Both Drabinski and Olson offer valuable suggestions for how digital technologies and other tools can be utilized to augment, adapt and otherwise intervene in catalog record retrieval and organization. More specifically, Olson suggests that librarians should "apply technology in innovative and subversive ways, to stretch standards such as LCSH and DDC." [11] With the rise of technologies like MARC records and Online Public Access Catalogues (OPACS), catalog records and the systems for retrieving them have become much more flexible. In one example, Olson shows how the misogynist biases of DCC can be offset by "map[ping] the feminist vocabulary, *A Women's Thesaurus* (1987) to DDC (1996) using an electronic interface designed by Dennis Ward."[12] Further, she suggests "designing search interfaces that make related and broader terms visible to users so that they can understand how materials are linked in the knowledge organization scheme." [13] These types of digital interventions can certainly aid in correcting the biases of DDC, but as Drabinski points out, those kinds of corrective measures may in fact simply further legitimate the project of building universal knowledge organization

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[10] Srinivasan, Ramesh. *Whose Global Village?: Rethinking How Technology Shapes Our World*. (NYU Press, 2017), 131

[11] Olson, "Power to Name," 659
[12] Ibid, 661
[13] Drabinski, "Politics of Correction," 106

systems. Thus, I will now turn to an example of an "indigenized" "knowledge organization system" to argue that we must rethink the entire methodology behind the way we interact with our library classification systems.

The immense potential of alternative library classification system design is evident in the example of Brian Deer Classification (BDC). Developed by Kahnawake Mohawk librarian A. Brian Deer in the early 1970's, this system was designed to meet the specific needs and match the interests of the library of the National Indian Brotherhood (NIB), a "national Indigenous political organization representing Aboriginal interests, rights and title."[14] Over a period of two years, Deer developed and tweaked this system, which, rooted in indigenous ways of knowing, forgoes an appeal to universality, and grows directly from the nature of the collection itself. The BDC does not simply offer a correction of DDC of LLC, but rather expresses the organization of knowledge in a fundamentally different way. In opposition to Dewey and Cutter, Brian Deer's design reflects "Indigenous values and perspectives" and "is not discipline-based but designed for action." [15]

However, because BDC is developed out of a more place-based and localized way of knowing, it is not easily transferable between libraries. Nevertheless, a number of institutions throughout Canada have adopted "variations and iterations" of BDC. Annie Bosum and Ashley Dunne, librarians at the Aanischaaukamikw Cree Cultural Institute describe why they chose to implement BDC at their institution:

> We determined that because our collection is focused on the Cree of Eeyou Istchee and includes many books on other nations in North America, Dewey Decimal Classification (DDC) or Library of Congress Classification (LCC) would not adequately organize our collection. Along with the use of outdated language, the organization of information in DDC and LCC springs from a non-Indigenous perspective that does not fully capture the finer classification potential of the majority of the books in our collection. Both systems would place nearly all of our collection into the History section, organized by national and provincial borders (in the case of DDC) or by a Western timeline (in the case of LCC). With both DDC

[14] Bosum, Annie, and Ashley Dunne. "Implementing the Brian Deer Classification Scheme for Aanischaaukamikw Cree Cultural Institute." *Collection Management* 42, no. 3–4 (October 2, 2017): 280–93. https://doi.org/10.1080/01462679.2017.1340858.

[15] Doyle, Ann M., Kimberley Lawson, and Sarah Dupont. "Indigenization of Knowledge Organization at the Xwi7xwa Library." University of British Columbia, 2015. https://doi.org/10.14288/1.0103204.

> and LCC, specific aspects of Indigenous history, customs, and culture become homogenized under generic subheadings and long strings of numbers.[16]

Here, the clear biases and inadequacies of both DDC and LCC are laid bare. Because they are rooted in a "non-Indigenous" perspective, they simply cannot meet the needs of the collection. The needs of indigenous libraries like Aanischaaukamikw Cree Cultural Institute point to the many ways in which traditional classification schemes homogenize culture and commit "procrustean" violence on different ways of knowing.

Beyond simply pointing out the limits and boundaries of traditional classification systems, the development of BDC also points to a potential road forward for how other alternatives might emerge. The strengths and challenges of the "indigenization" of knowledge systems can help point to the ways in which similar systems can be designed or implemented. Perhaps the most successful and largescale adaptation of BDC occurred at the X̲wi7̲xwa Library at the University of British Colombia. Developed by librarian Gene Joseph, The X̲wi7̲xwa Library "knowledge organization system" (KOS) serves a collection of "15,000 items in digital and traditional formats including monographs, media, grey literature, serials, dissertations, maps, posters, realia, special collections and archival materials[17]" The X̲wi7̲xwa KOS consists of a classification scheme and a specialized thesaurus now recognized by LC, the First Nations House of Learning (FNHL) Subject Headings. Remarkably, this unique KOS built out of Brian Deer Classification has been successfully integrated into the larger catalogue of the University through specialized MARC records.[18]The success of this system cuts to the heart of my argument: the communities most marginalized by traditional classification systems are better served by the development of their own local knowledge organization systems.

In "Indigenization of Knowledge Organization at the X̲wi7̲xwa Library," librarians Ann M. Doyle, Kimberley Lawson and Sarah Dupont brilliantly illustrate the ways in which indigenous knowledge organization systems like BDC challenge mainstream conceptions within LIS. They argue that the "Indigenized knowledge organization system is critical to effective

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[16] Bosum, Annie, and Ashley Dunne. "Implementing the Brian Deer Classification Scheme for Aanischaaukamikw Cree Cultural Institute." *Collection Management* 42, no. 3–4 (October 2, 2017): 280–93. https://doi.org/10.1080/01462679.2017.1340858.

[17] Doyle, Lawson and Dupont, "Indigenization of Knowledge," 109

[18] Ibid, 113

Indigenous information and instructional services, programming and research at the Library."[19] Further, summarizing the impact of the BDC more widely, they suggest that "the BDC demonstrates the ways in which theoretical innovation transforms practice across space and time."[20] The example of X̲wi7̲xwa Library and its adaptation of BDC shows that resistance to the dominant classification and cataloging standards is possible within a large academic library. More importantly, it shows that by reclaiming the autonomy and power to organize knowledge within libraries, marginalized communities can resist the homogenization of the dominant classification systems and power structures. Indigenous LIS scholar Ann Doyle makes the argument exceedingly clear: "the development of meaningful knowledge organization systems for the Indigenous knowledges held within libraries is integral to the larger projects of Indigenous scholarship, research and pedagogy at local and global levels." [21] As Doyle makes clear, the dominant classification systems are simply not an option for libraries committed to serving the needs of indigenous communities.

Indigenous Knowledge Organization Systems also challenge the divisions between knowledge containing institutions like museums, libraries, archives. And by blurring these lines they also challenge the concept of a record and the idea of private ownership over materials. As Becvar and Srinivasan explain, "Because it is often orally transmitted, community owned, locally oriented, and tradition based, indigenous knowledge presents several challenges to how information professionals handle and provide access to it – specifically related to ownership of materials, attribution and authorship, and conditions of access."[22] The solution to these issues cannot be to fit indigenous knowledge into the rigid, subjective divisions agreed upon by LIS professionals. The solution must be to allow for indigenous knowledge to be organized, maintained, and preserved by the source communities of that knowledge. In this way, Indigenous knowledge organization systems serve a similar purpose to projects of object repatriation within museums or participatory description in archives. All these projects are vital and necessary to

[19] Ibid, 114
[20] Ibid, 112
[21] Doyle, Ann M. "Naming and Reclaiming Indigenous Knowledges in Public Institutions: Intersections of Landscapes and Experience." Ergon Verlag, 2006. https://repository.arizona.edu/handle/10150/105581, 2

[22] Becvar, Katherine, and Ramesh Srinivasan. "Indigenous Knowledge and Culturally Responsive Methods in Information Research." *The Library Quarterly* 79, no. 4 (October 1, 2009): 421–41. https://doi.org/10.1086/605382.

combat "the colonialist notion that the knowledge resources held by indigenous groups is a 'public domain' entity, available for the taking because it has been deemed 'folklore' or 'myth' and is thus upon to all."[23] Like Dewey and Cutter's imagined "public," this "public" almost always means the dominant, western, capitalist perspective. Indigenous knowledge organization systems like BDC challenge us and implore to examine these assumptions.

Recognizing this imperative, it is important to consider the methods by which similar alternatives might be produced. Bossum and Dunne speak from their experience with BDC when they suggest that "it is important to make sure someone with specialized knowledge of—and ideally, membership in—the community represented in the collection has a large role in the adaptation of the classification plan."[24] Thus, a fundamental challenge emerges for LIS professionals: we cannot simply design alternative classification systems without understanding the underlying ontologies and ways of knowing that guide and shape the community. Both Deer and Joseph were members of the community in which they worked, deeply embedded within the knowledge traditions and practices of the people they wished to empower. But what about those communities that do not have local, Indigenous librarians to bravely push forward with this work?

To aid in addressing this methodological roadblock, we can turn to parallel examples within other domains of information and technology development. In many ways, knowledge organization systems are simply a form of technology, and libraries, when viewed in their larger social and cultural perspective, are infrastructure. As Srinivasan illustrates profusely in *Whose Global Village?*, digital information technologies and infrastructures can be built in ways that respect and empower indigenous ontologies. The homogenizing effects that digital technologies can sometimes have is not a result of some intrinsic quality of technology itself. Likewise, knowledge organization systems do not necessarily have to erase the more local, individualized ways of knowing. The practice of designing knowledge organization systems could be a liberating pedagogical act that draws attention to the limits and boundaries of other systems. Thus, briefly turning to examples from other domains of development we can ask: What would it look like for library professionals to apply some of these same collaborative, community-based strategies in the domain of library classification systems?

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[23] Ibid, 15
[24] Bossum and Dunne, "Implementing Brian Deer," 289

One strategy that could be used to design library classification systems is exemplified in Srinivasan's "community-modeled ontology projects," Village Voice and Tribal Peace. Both projects built systems around the approach of "fluid ontologies," described as "the representation of information system content according to fluid, elicited descriptions articulated by community."[25] While these cases focused on building digital communications and sharing platforms, the methodology could certainly be adapted to help aid in the creation of new library classification systems. Librarians could adopt a collaborative approach wherein focus-groups help to narrow and define certain see key values or relationships between subjects and entities. From this "fluid ontology" trained cataloguers could try to map the community's ontology onto the collection in the library. Indeed, Srinivasasn suggests the possibility of such a project: "one can apply the fluid ontology approach to consider nondigital environments as well. One area of intervention could be in information institutions such as museums, libraries and archives."[26] Such a project within a library would be daunting, but as I have shown, intervention is necessary is if we are to stop the accelerating erasure of diverse ways of knowing.

In "Indigenous Knowledge and Culturally-responsive Methods in Information Research" Katherine Becvar and Srinivasan locate the common pitfalls and successful strategies used in collaborative development of Community Information Services (CIS) within Indigenous communities. Based off analysis of different practices within indigenous communities, they offer a "culturally-sensitive framework for developing community information services." While they are not directly addressing the creation of "knowledge organization systems," their framework would be extremely instructive to the creation of alternative classification systems. They suggest: 1) "collaborative methods" 2) "direct indigenous involvement" 3) "ensuring appropriateness" 4) "establishing the 'right kind of research relationship" and 5) "ownership of the project."[27] Using this framework, librarians could work collaboratively with indigenous communities to establish new, alternative ways to organize library materials, outside the confines of DDC and LCC. This would empower local communities to better use their own information because, as Srinivasan contends, "locally contextualized and authored information…can be comprehended, adopted,

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[25]Srinivasan, Ramesh. "Where Information Society and Community Voice Intersect." *The Information Society* 22, no. 5 (December 1, 2006): 355–65. https://doi.org/10.1080/01972240600904324.

[26] Srinivasan, *Whose Global Village,* 138

[27] Becvar and Srinivasan, "Indigenous Knowledge"

and acted on more than information accessed from an alien context."[28] Within communities that do not adhere to the mainstream Western ways of knowing, LCC and DDC represent an "alien context." Thus, methods must be developed to recontextualize library materials within locally produced contexts.

Additionally, this work would have immense pedagogical value for both librarians and participants. By working with communities to establish their own classifications and knowledge organization systems, librarians would move away from what Paolo Freire calls "the banking model" of education and move towards a more liberating pedagogy. As summarized by Srinivasan, the banking model presumes that "access to externally authored information is the only means by which the global progress of the 'information society' may be achieved."[29] Rather than teaching "the right way" to catalog by imposing an external knowledge organization onto the materials within a community, librarians could turn cataloging into "a learning situation in which the cognizable object intermediates the cognitive actors-teacher on the one hand and students on the other."[30] In this example the "cognizable object" would be the community's information materials.

Thus far I have shown the ameliorative possibilities of bold, generative strategies within library classification system design, but of course, this argument has many limitations and caveats that must be addressed. While the example of the X̲wi7̲xwa Library exemplifies a highly successful model for the development of alternative classification systems, many challenges remain for the library. In examining some of these challenges, the potentialities of more diverse knowledge organization systems can emerge. First, the most obvious drawback to these projects is the eradication of standards and shared protocols. This fragmentation leads to a breakdown in the libraries' ability to share information with other libraries and with people unfamiliar with the knowledge organization system. Rather than empowering communities, this breakdown in "interoperability" could lead to further marginalization. Standards are, of course, necessary. And by throwing out the standards of the dominant classification systems, libraries would in many cases remove themselves from the many conveniences and economies standardization offers. Thus, priority should be placed on building linkages and translations between different systems.

[28] Srinivasan, "Where Information Society,"
[29] Ibid
[30] Ibid

Moreover, the organizations at the center of these systems, DCC and the Library of Congress are powerful institutions that will resist the "decentralization" of classification standards. Thus, these institutions should be approached as partners and possible allies.

The creation of specific local classification standards also gives rise to the problem of "mismatched ontologies." The ontologies represented in the large dominant classification systems will not align with those of the smaller systems. This disjuncture between the systems will cause "information loss." DDC and LCC attempt to capture and present "universal" systems and thus they function as "meta-ontologies" to the smaller more localized systems like DDC. In "Local-Global: Reconciling Mismatched Ontologies in Development Information Systems," Jessica Wallack and Srinivasan present strategies for reducing information loss when different ways of knowing are present. These strategies could also be used to make sure library classification systems operating at different scales could be reconciled. More specifically, they recommend "rethinking policymaking and institutional design along two dimensions to a) include more alternative channels for information flow to fill in gaps…and b) decentralize more decision making to subnational and local [institutions] that may operate on less-meta ontologies that are better matched to community ontologies."[31] Adapting these strategies from the realm of governance to library systems (which are certainly related), we can say that national library infrastructure should a) include more ways to affect change in standards from the bottom up and b) decentralize the standard-making bodies such as Library of Congress and OCLC (which maintains DDC). It is difficult to imagine what these systems would look like as decentralized networks, but if we are serious about respecting diversity and different ways of knowing we must start imagining such changes.

Perhaps the largest limitation to my argument is the vast amount of time and resources that such a project would require. Library budgets are already stretched thin and finding the time and resources to recatalog entire collections would be impossible for the vast majority of institutions. Nevertheless, the successful models detailed above show that such projects are not only possible, but ultimately extremely rewarding. Although it would take a lot of time, money and effort, LIS professionals could commit to using more ethnographic and collaborative

[31] Jessica Seddon Wallack and Ramesh Srinivasan, "Local-Global: Reconciling Mismatched Ontologies in Development Information Systems," in *System Sciences, 2009. HICSS'09. 42nd Hawaii International Conference On* (IEEE, 2009), 1–10.

methods to map local ontologies and create autonomous classification systems like BDS. Moreover, when weighed against the options of the alternative, it is clear we must invest heavily in reshaping our information infrastructures and institutions. For, as Doyle explains:

> The international standardization of knowledge organization and subject representation systems enables unprecedented sharing of knowledge and also holds unprecedented power to erase local and regional knowledge domains. At risk are the voices that represent diversity of human experience, including the thousands of unique Indigenous cultures, languages, stories and ways of expressing them. The result could be the loss of representation and access to alternative ways of understanding, conduct and being in the world.[32]

Knowledge organization is at the very core of LIS practice. While it can sometimes be lost in the mundane and boring details of this work, we must remember that knowledge organization is a practice, a performance and an art. It may be the easy and economical choice to rely on the "international standardization of knowledge organization," but in the end, we are risking the loss of the earth's diversity of knowledge. The choice of a library classification system may seem trivial, practical and non-political, but by listening to the voices of those most effected by them, we can begin to see how deeply important these decisions are.

Classification systems, though powerful shapers of our experience, often go unnoticed and unchallenged. The standards developed through classification pervade our lived environments and knowledge systems. They are behind the design of our technologies and our infrastructures; they shape the way we navigate space and perceive time. Yet, despite their important role in structuring what is visible and what remains hidden, classification systems rarely receive intense scrutiny or attention. Librarians, however, as individuals trained to work within and around classification and cataloging systems, are in a unique position to help increase the visibility of classification systems more generally. Thus, even if the methods proposed here do not produce usable technologies or classification systems, they can still be valuable ways to expose the contingency and social-constructedness of library classification systems, and thereby create space for further critiques and new discursive possibilities.

[32] Doyle, "Naming and reclaiming," 4

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