Journal of Open Educational Resources in Higher Education
Volume 4, Issue 1, (2026)
https://doi.org/10.31274/joerhe.24658

Innovative Practices

Video Recordings, From Speaker Series to Open-Access Repository

Curriculum Indigenization in the Library

Neah Ingram-Monteiro, *Teaching and Learning and Community Engagement Librarian, Western Washington University, Bellingham, WA, USA*

Tricia Logan, *Assistant Professor of First Nations and Indigenous Studies, Vancouver, BC, Canada*

Abstract

There are life cycles of stories and life cycles of storing recordings, and they live in cycle with ecosystems. This article features a series of environmental knowledge holders' conversations about teachings, ecologies, and the recordings of their stories. Each cyclical process relies on an interchange between the content and the context of how that information has been shared or will be shared in the future. Librarians and coordinators of the speaker series are also in conversation here. The article highlights the care, pace, and speakers' perspectives on how open access and librarianship practices share stories in their collections. Based on the Western Washington University (WWU) Environmental Speaker Series at the Salish Sea Institute, this article approaches Indigenous Knowledges in pedagogical design and librarianship, in consideration of long-term storage, access, and control over the stories recorded during the speaker series. These conversations contribute to negotiating consent and operating at a pace that respects both the stories and the ways the knowledge holders want to build respectful knowledge transmission.

Keywords:

Recordings, Research Relationships, Consent, Indigenous Science, Oral History

Corresponding Author: Neah Ingram-Monteiro, ingramn@wwu.edu

This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

©2026 Ingram-Monteiro & Logan

Introduction

This study considers a set of video recordings that uniquely share Indigenous science, community-engaged research methods, storytelling, and voices that are underrepresented in scholarly literature and library resources due to the privileging of Western ways of knowing in scholarly publishing and library collecting practices. We interviewed past speakers and faculty coordinators of the Salish Sea-themed series of a college environmental speaker series, as well as librarians with roles related to caring for the recordings, to build a picture of the life cycle of the recordings. The recordings were treated as de-facto open educational resources (OER); they are published in an open access institutional repository and indexed in library databases, assigned as course material by Indigenous and settler faculty members, and shared on social media in Indigenous communities where the knowledges originated. These recordings are a unique and important interface between Indigenizing academic programs of a U.S. university and the Salish Sea nations, scholars, and communities featured in the series. We argue that the process of incorporating the recordings into the institutional repository highlights the need for ethical care and engagement around consent and metadata description when Indigenous Knowledges are shared, particularly as they challenge Eurocentric intellectual property conceptions of licensing and crediting a single creator.

The recordings are from the Environmental Speaker Series that is hosted each year by the College of the Environment (CENV) at Western Washington University (WWU). While the CENV runs the series during the fall, winter, and spring terms, the 10-week winter quarter series (January through March) has been co-coordinated with WWU's Salish Sea Institute since 2019. Faculty from both entities meet months in advance to identify and invite potential speakers who can speak to multiple ways of knowing the Salish Sea bioregion. Typically, about one third of the invited speakers represents First Nations or Native American communities, another third represents Canadian institutions, and the remaining third represents U.S. institutions. This winter-quarter series is referred to as the Salish Sea themed series of the Environmental Speaker Series ("the series" henceforth). The series is offered as a one-credit course with an optional associated one-credit seminar, and members of the public are also welcome to attend presentations. Presentations are typically recorded, and recordings are published online afterward. Students, researchers, and members of the public can access the recordings through the Salish Sea Institute's website at https://salishsea.wwu.edu/environmental-speaker-series.

Examining the life cycle of these recordings, as described by study participants, we can see that there are limitations to respectfully sharing Indigenous Knowledges (IK) in academic libraries in the U.S. without formal Indigenization efforts across the institution that include reciprocal relationships with the Native tribes and nations of the area. In this case, the access ethos of librarianship supports the sharing of video recordings that uniquely share IK about the bioregion, creating a permanent, accessible home for these valued resources. While the establishment of a permanent home for these recordings is something all study participants celebrated, they also identified limitations of current practice. One limitation is that the consent process is rushed and asks an individual speaker to sign a form agreeing they can be recorded.

This consent process needs to be slowed down and complexified to take into account knowledge holders beyond an individual researcher and cultural protocol surrounding collectively held knowledges. Another limitation is that the application of U.S. national descriptive standards upholds Eurocentric knowledge organization and limits culturally relevant discoverability of the recordings.

Transmission of Indigenous Knowledges

Creating spaces for IK in pedagogical design as well as in library catalogues involves both methods to "decolonize" and catalogue inside typically Western-academic constructed systems (Edwards 2019, p. 6). It is what Duarte and Belarde-Lewis (2015) describe as work "about the divestment of foreign occupying powers from Indigenous homelands, modes of government, ways of caring for the people and living landscapes" and how it translates into the library as a divestment from foreign ontologies or descriptions (p. 678). Transmission of IK may include orality, oral history, languages, language systems, orthographies, recordings, naming conventions, and teachings in order to provide context to the transmitted knowledge. The teachings attached to the transmission of IK often come in "bundles" of knowledge and as gifts to the listener-learner.

IK is often described as tangible, as a gift, and often in First Nations or Native American knowledge transfer, a gift is presented before or after stories and knowledge are shared (Archibald, 2008). Often medicine, medicinal plants, or material gifts are presented in recognition, thanksgiving, and thanks for shared IK. Knowledge is inherently tied to the land and the kinship relationships of a distinct territory, and positioning the knowledge in the territorial context in which it was shared carries meaning to the context of what was shared. There is often responsibility that lies with the storyteller to imbue meaning or a "moral" to their story, and it is also up to the storyteller to leave the meaning up to the listener. Teaching and sharing Indigenous peoples' stories carries with it not only the responsibility to respect the story itself but also to find the most appropriate methodology for sharing the story as well (Archibald, 2008).

The presence of IK in libraries requires self-determination and relationality. Within information practices, Indigenous individuals and communities have the potential to self-determine their own control over information about and for Indigenous peoples. Library practice, policy and protocols may provide this space for determination through a fair balance of power, and equitable access to information with and a mode for control inside existing library structures. Rights to Indigenous self-determination originate from lands, territories, and teachings and broadly speaking, through the teachings and Knowledges therein. Relationship-building with Indigenous communities and nations emerges as a central action to opening library spaces and operations to respectful, Indigenous Knowledge-based self-determination (Thorpe, 2019).

Lee (2008) discusses honoring IK, stating that IK belongs in academic libraries, particularly as more Indigenous scholars work for institutions and need these resources. She highlights that the value of caring for IK in academic libraries from Aboriginal perspectives

needs to be promoted, including cultural sensitivity and relationship-building with local Aboriginal communities. Such interactions should include determining what access restrictions are necessary to protect the privacy of people or communities who could be harmed by content of materials shared in libraries, inquiring with communities about reports published by Aboriginal organizations and theses related to Indigenous studies that the library could acquire, and obtaining copyright permission with an understanding of community protocols and customary laws. Younging (2016) argues that cultural protocol should prevail over Eurocentric intellectual property law, but it is currently the other way around in practice.

Roy, Hogan, and Lilley (2012) argue that the combined appropriation of cultural materials held in libraries and lack of support for Indigenous literature production amounts to cultural imperialism that serves White, middle class patrons at the expense of Indigenous peoples. To counteract this cultural imperialism, they urge librarians to support self-determination in matters of access and point to the United Nations (U.N.) Declaration on the Rights of Indigenous Peoples upholding (in Article 12 and elsewhere) both respect for Indigenous self-determination and support for Indigenous cultural production (Roy et al., 2012).

Respect, responsibility, and reciprocity often lead approaches to creating partnerships with IK holders. Cognizant of the history of academic and research institutions' relationship to extractive models of Indigenous research, new partnerships are continually emerging and are increasingly placing IK holders and communities in control of research in their own communities (Littletree et al., 2020). Reciprocity is acknowledged as a central tenet of a research relationship, especially in sciences and social sciences that traditionally exploit research relationships for their own benefit while providing little tangible support back to Indigenous "subjects." While these practices are still emerging, and many research institutions or relationships still rely on "old ways" and place undue pressure and hardship on Indigenous communities in the name of research, it should be recognized that libraries have a role in confronting uses of IK.

Through promoting respectful research and being arbiters of pedagogical design, libraries have opportunities to manage incoming and outgoing IK with researchers, which demonstrates a relationality and a responsibility to the knowledge itself. There is an enhanced role for librarians managing IK, and expectations for reference or student queries require thoughtful curation and consideration. There is rarely (or never) a binary yes or no response or a checklist or manual for providing a bridge to IK. The work librarians are asked to do in knowledge transmission (or even in some cases, knowledge translation) is about introducing a patron or student to a relationship with the information or knowledges (Nakata et al., 2005). In the following set of interviews, the relationality of the knowledge—among the people, the knowledge carriers themselves and the knowledge itself—provides a frame and a mode of knowledge translation for librarians to consider their ethic of care for those relationships.

About the Interviews

We interviewed faculty coordinators of the Salish Sea focused speaker series, environmental science librarians, and past speakers from the series who discussed Indigenous

ways of knowing in 2019, 2020, or 2021. Interviews asked how consent and collaboration play into current practice of sharing IK in this series and sought to elicit participants' visions for respectfully facilitating IK sharing in academic libraries. We recruited participants by email in July 2021 (after receiving ethics approval from UBC's Research Ethics Board, H21-02101); two participants invited additional participants in August. Some past speakers and coordinators were unable to participate due to the limited time frame of the study, which may affect the findings.

Interviews were conducted and recorded on Zoom in August and September 2021 and lasted from 30 to 90 minutes. Consent was discussed and confirmed at the beginning of each recorded interview. All participants chose to use their real names in this study. We analyzed the interviews to identify themes and shared an internal report with the participants in January 2022. The report pieced together current practice to understand the life cycle of the recordings (while recognizing that this life cycle and handling of the recordings is in flux) and to highlight opportunities and tensions that emerged from the collective interviews with people involved at different stages. In the report and this article, we include literature from the field of Indigenous librarianship to support recommendations.

The purpose of the study is to contribute to literature and influence practice as it relates to roles and ethical responsibilities of academic libraries when supporting Indigenization in contexts similar to WWU. At this teaching university, there is no centralized program of Indigenous science, but faculty from several different disciplines teach related courses. To some extent, this library's context provides an exemplifying case for U.S. teaching universities where there is opportunity for more institution-wide support toward curriculum Indigenization in collaboration with area communities.

Life Cycle of the Video Recordings

The speaker series is first and foremost a one-credit course with an optional associated one credit Salish Sea Studies Community Seminar. Members of the public are also welcome to attend presentations. Students, researchers, and people unaffiliated with the university can access the recordings online. Going back to 2013, some talks of the wider, year-long Environmental Speaker Series have been recorded by WWU entities and posted online on various websites. When public events shifted online due to COVID-19, the series recordings were published on the university's alumni association's Vimeo. As of summer 2021, the recordings from the past year were added to the university's open access institutional repository, Western CEDAR.

Indigenous Science

While not an explicit Indigenous science series, this is a central theme that comes through across the series recordings and in the interviews conducted for this study. Johnson et al. (2016) build on Cajete's (2000) "native science" definition, describing Indigenous science as "a 'multi-contextual' system of thought, action and orientation applied by an Indigenous people through which they interpret how Nature works in 'their place'" (p. 5). Central in this definition is that Indigenous science is high-context while Western sustainability science is low-context;

here, high-context includes that it is a body of knowledge built over generations in relation to a place. While it may use the same methods as Western science (they name "classifying, inferring, questioning, observing, interpreting, predicting, monitoring, problem solving, and adapting,"), Indigenous science is guided by relational connections. Elucidating this intergenerational, place-based relationality, Liboiron (2021) states that Indigenous science is science done by Indigenous peoples on Indigenous lands, reflecting decision-making that is "an expression of Indigenous sovereignty over Indigenous ways of producing knowledge" (p. 124).

In the three years of the series, the topics shared by invited speakers included environmental policy, climate justice, food sovereignty, Indigenous resistance, ocean acidification, and land education with most but not all talks specific to Coast Salish nations. The past speakers who participated in this study shared their research on using clam garden research to span the boundary between Indigenous communities and academic research (M. Hatch), the ethnoecology of a Lekwungen archipelago (D. Matthews), and Indigenous Knowledge in a changing climate (N. Turner).

Multiple participants in this study spoke to how the recordings uniquely share work that bridges Indigenous science and Western science in the Salish Sea. Turner named that within academic considerations of climate change, Western scientific knowledge is privileged, yet Indigenous peoples hold rich knowledge that is important and needs to be applied to solving huge problems that Western science has not been able to alleviate. Coordinator N. Baloy spoke about how the series supports students who are steeped in Western science in seeing ways of knowing beyond it, and said that the theme of Indigenous science came out in student reflections. Librarian a. koehler, who supports environmental science research, spoke about the recordings offering important knowledge that is not otherwise represented in library resources.

Through its curation by scholars of environmental science, the Salish Sea, settler colonialism, and Indigenous studies, the series has developed a thematic focus on Indigenous science intersecting with Western science. Making the recordings accessible through WWU's institutional repository shares important ways of knowing that are not otherwise represented in the university's library resources.

Underrepresented Voices

In speaking about the importance of making the series recordings available for his students, Hatch identified the speakers' underrepresentation in the curriculum, pointing out that the people from whom he wants students to learn have many calls on their time:

> Particularly when we are bringing in outside folks, it could be the students' only opportunity to hear what they have to say. Particularly if we are working with community members who don't have a big video library presence. Those are pretty unique resources. …Those videos wind up having a lot of use for students in the future. Part of it is, these individuals we are bringing in have a lot of calls on their time. While having someone in person is obviously superior to video, it's not possible. You're not going to get Ray Harris to come over from Canada every time you need him to speak in a class.

The Coast Salish speakers invited to present through this series are well known as community leaders and speakers in networks such as the Coast Salish Council, First Nations Summit, food sovereignty, and the Washington State Legislature. With few exceptions beyond those who hold academic positions at universities, the speakers' only works in the Western Libraries' collection are the video recordings from this series.

A disconnect between library resources and community knowledge is not unusual in academic libraries. Libraries acquire scholarly material through large multinational companies who package and distribute peer-reviewed journals and academic monographs. Indigenous scholars experience discrimination in scholarly publishing; Indigenous Knowledge may be shared orally; and many reports that are core to Indigenous studies are grey literature published locally (Hunt & Whyte, 2018; Simpson 2004).

Librarians at Mount Royal University found that they need to be more creative when approaching collection development for Indigenous studies; they must go beyond conventional tools and major vendors that fail to include resources such as "oral histories, non-print objects, and community-created content" that are central to Indigenous studies (Loyer et al., 2017, p. 341). At Xwi7xwa Library, collection development focuses on materials created by First Nations authors and organizations, including scholarly material, but equally emphasizing small Indigenous presses and tribal council publications. The collection "serves to both enhance, and to provide counter narratives to, the wider collection of historical and anthropological materials about Indigenous people" held by the university library (Doyle et al., 2015, p. 112).

Research Methods

Community-engaged research methods are highlighted in the series. The three past speakers who participated in this study are scholars affiliated with bioregional universities (WWU and University of Victoria) who partner with First Nations and Native American tribes in different ways.

Matthews' presentation was structured to share a general overview of the projects and methods of his community-based archaeological and historical ecology research with the Songhees Nation at Tl'ches. "We want other Indigenous communities and scholars, ideally scholars partnering with Indigenous communities, to be aware of what we are doing and how we are doing it," he shared. Turner spoke about the need to incorporate knowledge from Indigenous peoples' observations—Indigenous Environmental Knowledge systems—into climate change research. Throughout her presentation, she demonstrated the relationships that are integral in doing that.

Hatch spoke about shifting science toward equitable exchange (discussed in Harris et al., 2021, a commentary that was published shortly after his presentation), for example, in bringing together Traditional Ecological Knowledge and Western science to use available information to work for a healthy future in the Salish Sea. He shared examples from students in his sea garden lab whose data collection is carried out with the help of students from Northwest Indian College (a tribal college with its main campus at the Lummi Nation) and WWU.

Past or present research relationships, forged with Indigenous communities, built collections of Indigenous Knowledges inside libraries, archives, and research repositories. Speakers, as part of the Salish Sea series, provided a reminder that the knowledge has been acquired unsafely in the past, but transformations in library practice mean better relations with Indigenous Knowledge. Care for stories, as they are passed over from Indigenous storytellers to libraries, is about more than the care of stories themselves. Library, information, and Indigenous Knowledge scholars Sandra Littletree, Miranda Belarde-Lewis and Marisa Duarte (2020) inform these approaches to library practice and how care of Indigenous Knowledge not only confronts libraries but also confronts colonial practices by suggesting justice and fair treatment of IK prevail:

> To appropriately describe and provide access to these expressions, it is insufficient to care only for the object, which is the material expression of a people's way of life. Instead, the knowledge itself, including the means of its making, must be treated with respect, with a sense of responsibility toward the restoration of justice for Indigenous peoples in light of the history of colonialism, including the establishment of fair and just reciprocal relationships between the holding institutions and the Indigenous peoples who created the original expressions. (p. 416)

Roles for librarians keep transforming as adapted approaches to storywork and storytelling not only suggest care for the stories but also confront past injustices, build new spaces for IK, and challenge traditional academic research practices. Acknowledging the relationality of IK to the library, to the land, people, and the way the knowledge is expressed must translate into the knowledge organization at the institutional level (Littletree et al., 2020).

Storytelling

As Archibald (2008) states,

> …it is essential that First Nations have the power to direct the textual representation of their stories and their cultural knowledge. Storytellers who approach their work and story representation in other media with respect toward the story, with responsibility to share it accurately and appropriately, with the teachings of cultural reciprocity, and with reverence will provide others with quality storywork. (p. 147)

A theme that came up in several interviews in this study was the appropriateness of stories and videos for contemporary learners. In reading student reflections on the series, Baloy observed the impact of having someone come and share their stories to the class. She shared,

> Often the speakers bring stories and share about their work through storytelling of some kind…. That humanizing and storytelling piece of having a person, in person, sharing with students—that information channel has been really effective for many students who are listening and learning.

Faculty coordinator M. Baker has assigned the videos in other courses and shared that, "non-print, non-reading material is important in today's learning environment. It's important to have good material available."

There is also an important consideration to include an expanded perspective on how IK is shared, for both contemporary learners as well as contemporary uses of the stories. Expansion of digital library platforms and Indigenous transformations in digital storytelling provide exciting potential for use of stories, like the Salish Sea series, in library collections. Providing capacity for Indigenous community or nation-led control over stories and fairer representation of Indigenous self-determination over access to stories also expands capacity for creating a better interface to connect Indigenous-led oral history, with mapping, teachings, IK, artefacts, belongings, images, records and Indigenous methodologies in the same digital location (Shiri et al., 2022). As an extension, the library or digital structure can support space for ongoing contributions, comments, recordings, and multiple perspectives on the same topics (Shiri, et al., 2022).

Consent to Record and Archive Openly

All interview participants were asked about the consent process around recording and archiving the presentations. Everyone acknowledged and lifted up the educational value of making the recordings available to a wide audience. However, there was discussion around slowing down the process of obtaining consent to record so that speakers can give clear, informed, and continued consent for the recordings to be shared. Continued consent refers here to speakers' right to change the terms under which recordings are shared at any time; this could mean asking that a recording be removed from the repository at any point in the future. As a component of sharing IK in a library collection, consent is essential to Indigenous self-determination.

The series coordinators ask speakers to sign a consent-to-be-recorded form. Baloy said that the consent form is usually given to the speaker right before their talk when there is a lot going on, but in the future she wants to share it as part of the initial invitation to speak. Hatch shared that, in practice, the series also accommodates requests to not record, or to stop recording for a portion of a talk.

Matthews did not realize the presentation, which was delivered over Zoom, would be archived for purposes beyond sharing information with the audience tuning in that day and with students in the course who needed to watch the recording after the fact, saying,

> I don't remember discussing [the recording being archived and made widely available], but I feel okay about it. I think before that happens I would want to check in with the community and have a conversation about it and have an opportunity to do that. I may have missed that detail but I don't recall seeing that detail when I did that talk. I knew it was going to be recorded, but in terms of its curation and dissemination, I don't recall that discussion, but I do want to be clear that I could have just forgotten that detail.

Matthews shared more about the importance of being clear about the longevity of the recordings, stating,

> I think moving forward, it would be helpful to have a bit more transparent communication about how the information will be used and shared in the future... If I had

> known this was going to be archived, I would have clarified that it was just a moment in time in an evolving process, and not a static end-product of work. If I had known this was going to be archived, I really would have found a way for [Songhees elder Joan Morris] Sellema to be part of it. Because it was during COVID it was a tricky time to do that, but knowing now that this is now kind of a historic document rather than just a presentation in the moment, it's a different thing. Maybe I would have gone to Joan's house and set up the technology for her. I offered to do that, but she said no it's not a big deal, it's just a talk, but now that it is an archived thing, that has changed that dynamic a little bit, so I am cognizant of the fact that a significant part of my talk is about Joan's life and Joan's childhood and the lives of other peoples, and I'm not a Lekwungen member and I am very cognizant that I am talking about other people's histories. I'm doing it with permission, but at the same time, the voices of those people are ultimately the voices that should be heard…When you archive a talk like this, it's not a documentary, but it's also not just a talk anymore either, it's somewhere between these two things.

Four participants shared ideas for how to slow down the conversation about recording and archiving. Baker, who comes from a media background, spoke about emphasizing that recording is voluntary and offering the option of having the recording destroyed:

> They should know before they give permission that their work will be available. There should be a very clear enunciation that we want your permission to make this available in our archive. The speaker series could say [the recording is only] for pedagogical curricular reasons…Separate it out so it's available to students during the quarter but it will only be archived and posted on YouTube if you give us permission…[and otherwise] we will destroy it and not make it public.

Archivist E. Joffrion, who hosts a speaker series related to WWU Archives and Special Collections, shared about the consent process she follows: "I sit down with folks to make it clear what they are agreeing to, being filmed, that it can be made available online for research purposes, how to cite it. If folks are not comfortable signing that form, they should have that right."

Matthews, who hosts an environmental speaker series at the University of Victoria, spoke about how the series he organizes is not recorded, though there are requests from potential audience members. He pointed to capacity issues as well as the idea that speakers are invited to share about issues and sensitivities that they might not be comfortable sharing on the record.

Metadata Descriptions

In addition to the consent form, Baloy shared that current practice includes asking the speaker for a photo, biography, title, and description to promote the presentation. This information has accompanied the recordings when they are shared on WWU websites. In the future, and with the move to the repository, Baloy would like to make a point of asking each speaker what information they want to have accompany the recording. She gave examples of

their biography, links to other materials they have written or work they have done, acknowledgments, and keywords.

Librarian J. Oleen shared that when a video is added to the repository, it is uploaded to YouTube to generate captions, and that a signed permissions form can accompany a recording. Librarian C. Mullin shared that the cataloging workflow for these recordings would include keeping the full-text summary provided by the speaker for the initial presentation, adding Library of Congress Subject Headings and genre format terminology from the Getty Art and Architecture Thesaurus, and adding keywords or other subject terminology to an additional free-text field. Librarian koehler discussed the limits of reliance on the full-text summary from the presentation from her perspective of working with students and researchers to find information. She referenced the Salish Sea Ecosystem Conference materials that are housed in the repository, as well as the speaker series videos, saying,

> The process of supporting students working on the Salish Sea report revealed a need to better capture what was publicly available. They had student employees...comb through the speaker series and related materials looking for more details than was readily available online: tribes that the speakers were from, the Indigenous Knowledge they were speaking about in terms of what could be identified using European place names...The students were building a huge Google sheet about what was discussed.

koehler suggested that the metadata captured in this spreadsheet—such as which areas of the Salish Sea a presentation was about—should be searchable for library users. As it stands, this kind of information is not searchable; it is shared within the video but not in the way the library's systems or other platforms, such as the alumni association's Vimeo account, are able to index and represent the videos. Including metadata that identifies specific nations or communities would "ensure that members of that community can find that work while searching for their nation in their library" (MacLeod, 2021, p. 4).

Mullin and koehler both articulated a desire to meet with WWU's Tribal Liaison Laural Ballew to support initiatives she puts forward and discuss how to address disconnects between European knowledge organization and IK. Mullin mentioned that the library's Northwest Collection has no formal curation by or with Coast Salish peoples, and that he sees the Tribal Liaison as someone the library can consult with about how to reciprocally develop more appropriate classification. The university's archives' regional history center has an existing relationship with the Lummi Nation that has similarly pointed to the importance of "incorporating Indigenous Knowledge in the development of metadata and other descriptive information," and hopes to develop "culturally appropriate policies that facilitate the sharing of collections and reciprocal education practices" (Joffrion & Tom, 2016, p. 18).

The discoverability and use of metadata in Indigenous sciences lends support to transformative and decolonizing changes in libraries and how Indigenous writing in science, technology, engineering, and mathematics (STEM) is accessed by researchers. Cultural meaning carried through Indigenous sciences is important, and what some STEM researchers have also found is that the accessibility of knowledge, resources, or materials is just as important as the

cultural capital of the Indigenous Scientific Knowledge (Canevez et al. 2022). There are political, socio-economic, and colonial forces that still drive the accessibility of STEM resources, and these are important reminders for library collaborations with Indigenous Knowledge holders as they adapt existing collections.

Open Access and Indigenous Knowledges

Interview participants identified benefits of sharing the recordings in an open access institutional repository. The repository gives the recordings a central home, providing continuity of public (university) ownership that is not available through video sharing alternatives such as corporate social media platforms where the recordings have previously been published. As open learning materials in the repository, the recordings can be contextualized through descriptive, machine-readable and human-readable metadata. They can be found and accessed through searches for scholarly materials, including on Google Scholar.

Anyone can watch them for educational purposes, but they are published with a standard statement of rights indicating that copying of the recording for commercial purposes is not allowed without the author's written permission. In addition to students and researchers working in the scholarly context of WWU, community partners can benefit from access to the recordings and the knowledge that they share. Past speakers Matthews and Turner both talked about the reach of video platforms within the nations with whom they work. After his talk was posted to Vimeo, Matthews said that he saw Indigenous people in Victoria sharing the talk on Facebook, accompanied by "very positive feedback from the people of the nations here." Turner said the recording of her talk should be available to anyone who is interested in learning from it.

A key aspect within the open access paradigm is that "creators" must choose to publish their "work" that way. As Matthews' experience elucidates, an individual speaker may not be able to make this choice to share Indigenous Knowledge and license their presentation for educational use without consulting the knowledge holders with whom their research is conducted. There is a difference between speakers sharing community knowledge consensually within the confines of a university class where cultural protocol is followed, and sharing in a more perpetual and openly accessible recording. Researchers and communities need to be able to give clear, informed, and continued consent for the recordings to be shared publicly (whether through social media platforms like Vimeo or an open access institutional repository).

While continued consent requires that speakers be able to change the terms under which recordings can be shared, many commonly used open licenses set irrevocable terms. This is the case with Creative Commons (CC) licenses. When a CC license is applied to a work such as a recording, its irrevocability means that the licensor cannot terminate the license at any point during its applicable copyright (Dusollier, 2006). In the process of discussing consent and terms under which to share recordings, whether in an institutional repository or on a social media video platform, librarians can contribute to the conversation around the risks of publishing under an irrevocable license (Ding, 2019). Further, library practice needs to be flexible to ensure that the

licenses and agreements discussed at the time of recording are carried through to the publication platform and honor the agreements between researchers and communities.

As part of the process of being added to a repository, recordings need to be cataloged, which in this case includes fitting them into existing descriptive standards whose limits are well documented within Indigenous librarianship (Cherry & Mukunda, 2015; Doyle et al., 2015; Littletree et al., 2020). Strong, reciprocal institutional relationships with area nations and tribes that include and support library practitioners can develop policies and practices that prioritize Indigenous self-determination in matters of both access and description.

There is growing interest in including video recordings about Indigenous science in institutional contexts to support curriculum Indigenization, as this study demonstrates. The presence of such recordings in an institutional repository is exciting for many of the researchers and Indigenous communities partnering in respectful research collaborations as it indicates institutional willingness to support the preservation of these important, place-based teachings and expands access to perspectives that are otherwise absent from library collections. This presence is indicative of an emerging "sense of responsibility toward the restoration of justice for Indigenous peoples in light of the history of colonialism" (Littletree et al., 2020, p. 416).

Yet to facilitate knowledge-sharing guided by justice, relationality, and self-determination, libraries need to go beyond inclusion and consider when to adapt usual practice. Librarians are shifting their roles in information practice, accounting for readers and patrons reimagining their relationship to information. This does not diminish the connection to content and a research trajectory, but there is a new role for considering the contexts and different ontological frames for knowledge. How readers listen to or read knowledges becomes the primary entry point, and the relationship defines the content before the metadata does.

Open access methodologies remain "experimental and innovative" and continue to be informed by Indigenous librarianship (Turin et al., 2013, p. xxiii). There is an important link between the heightened connectivity of open access and the role of relationality in the transfer of IK. Building points of connection, affiliated with territory, story, and knowledge and making them findable restores respectful practices in caring for Indigenous stories and knowledge.

Acknowledgements

We are grateful for the time and perspectives gifted by the interviewees for this study. In the time since we conducted the interviews, new library resources about Coast Salish Indigenous science are available for educational purposes, particularly the Setting Sun Digital Heritage Library (https://library.settingsunproductions.org/) database.

Conflicts of Interest Statement

Ingram-Monteiro started working at the WWU library in 2022 after the interviews were completed for this study but while we were writing the manuscript.

References

Archibald, J. (Q'um Q'um Xiiem). (2008). *Indigenous storywork: Educating the heart, mind, body and spirit*. UBC Press.

Cajete, G. (2000). *Native science: Natural laws of interdependence*. Clear Light Publishers.

Canevez, R., Maitland, C., Shaw, J., Ettayebi, S., & Everson, C. (2022). STEM educational outreach and Indigenous culture: (Re)centering for design scholarship. *International Journal of Human–Computer Interaction, 38*(17), 1718–1734. https://doi.org/10.1080/10447318.2021.2016235

Cherry, A., & Mukunda, K. (2015). A case study in Indigenous classification: Revisiting and reviving the Brian Deer Scheme. *Cataloging & Classification Quarterly, 53*(5–6), 548–567. https://doi.org/10.1080/01639374.2015.1008717

Ding, Y. (2019). Is Creative Commons a panacea for managing digital humanities intellectual property rights? *Information Technology and Libraries, 38*(3), 34–48. https://doi.org/10.6017/ital.v38i3.10714

Doyle, A. M., Lawson, K., & Dupont, S. (2015). Indigenization of knowledge organization at the Xwi7xwa Library. *Journal of Library and Information Studies, 13*(2), 107–134. https://doi.org/10.14288/1.0103204

Duarte, M., & Belarde-Lewis, M. (2015). Imagining: Creating spaces for Indigenous ontologies. *Cataloging & Classification Quarterly, 53*(5–6), 677–702. https://doi.org/10.1080/01639374.2015.1018396

Dusollier, S. (2006). The master's tools v. the master's house: Creative Commons v. copyright. *Columbia Journal of Law & the Arts, 29*(3), 271–294.

Edwards, A. (2019). Unsettling the future by uncovering the past: Decolonizing academic libraries and librarianship. *Partnership: The Canadian Journal of Library and Information Practice and Research, 14*(1), 1–12. https://doi.org/10.21083/partnership.v14i1.5161

Harris, L. A., Garza, C., Hatch, M., Parrish, J., Posselt, J., Alvarez Rosario, J. P., Davidson, E., Eckert, G., Grimes, K. W., et al. (2021). Equitable exchange: A framework for diversity and inclusion in the geosciences. *AGU Advances, 2*. https://doi.org/10.1029/2020AV000359

Hunt, S., & Whyte, K. P. (2018). The politics of citation: Is the peer review process biased against Indigenous academics? [Interview]. *CBC Radio*. https://www.cbc.ca/radio/unreserved/decolonizing-the-classroom-is-there-space-for-indigenous-knowledge-in-academia-1.4544984/the-politics-of-citation-is-the-peer-review-process-biased-against-indigenous-academics-1.4547468

Joffrion, E., & Tom, L. (2016). Broken promises: A case study in reconciliation. *Archival Issues, 37*(2), 7–22. https://doi.org/10.31274/archivalissues.11014

Johnson, J. T., Howitt, R., Cajete, G., Berkes, F., Louis, R. P., & Kliskey, A. (2016). Weaving Indigenous and sustainability sciences to diversify our methods. *Sustainability Science, 11*(1), 1–11. https://doi.org/10.1007/s11625-015-0349-x

Lee, D. (2008). Indigenous knowledges and the university library. *Canadian Journal of Native Education, 31*(1), 149–161, 320–321. http://hdl.handle.net/10388/293

Liboiron, M. (2021). *Pollution is colonialism*. Duke University Press. https://doi.org/10.1515/9781478021445

Littletree, S., Belarde-Lewis, M., & Duarte, M. (2020). Centering relationality: A conceptual model to advance Indigenous knowledge organization practices. *Knowledge Organization, 47*(5), 410–426. http://hdl.handle.net/1773/46601

Loyer, J., Vanderwerff, M., & Bowler, M. (2017). Supporting Indigenous studies programs through sustainable budget allocation. *Collection Management, 42*(3–4), 338–350. https://doi.org/10.1080/01462679.2017.1337600

MacLeod, L. (2021). More than personal communication: Templates for citing Indigenous Elders and Knowledge Keepers. *KULA: Knowledge Creation, Dissemination, and Preservation Studies, 5*(1). https://doi.org/10.18357/kula.135

Nakata, M., Byrne, A., Nakata, V., & Gardiner, G. (2005). Indigenous knowledge, the library and information service sector, and protocols. *Australian Academic & Research Libraries, 36*(2), 7–21. https://doi.org/10.1080/00048623.2005.10721244

Roy, L., Hogan, K., & Lilley, S. (2012). Balancing access to knowledge and respect for cultural knowledge: Librarian advocacy with Indigenous Peoples' self-determination in access to knowledge. In J. Lau, A. M. Tammaro, & T. J. D. Bothma (Eds.), *Libraries driving access to knowledge* (pp. 163–189). https://doi.org/10.1515/9783110263121.163

Shiri, A., Howard, D., & Farnel, S. (2022). Indigenous digital storytelling: Digital interfaces supporting cultural heritage preservation and access. *International Information & Library Review, 54*(2), 93–114. https://doi.org/10.1080/10572317.2021.1946748

Simpson, L. R. (2004). Anticolonial strategies for the recovery and maintenance of Indigenous knowledge. *The American Indian Quarterly, 28*(3), 373–384. https://doi.org/10.1353/aiq.2004.0107

Thorpe, K. (2019). Transformative praxis: Building spaces for Indigenous self-determination in libraries and archives. *In the Library with the Lead Pipe*. http://hdl.handle.net/10453/140810

Turin, M., Wheeler, C., & Wilkinson, E. (2013). Introduction. In M. Turin, C. Wheeler, & E. Wilkinson (Eds.), *Oral literature in the digital age: Archiving orality and connecting with communities* (pp. xxiii–xxviii). Open Book Publishers. https://doi.org/10.11647/OBP.0032

Younging, G. (2016). The Traditional Knowledge-intellectual property interface. In C. Callison, L. Roy, & G. A. LeCheminant (Eds.), *Indigenous Notions of Ownership and Libraries, Archives and Museums* (pp. 67–74). https://doi.org/10.1515/9783110363234