Getting Warmer: A Refined Taxonomy For Assessing Public Libraries' Response to the Climate Crisis
Il fait plus chaud : une taxonomie raffinée pour évaluer la réponse des bibliothèques publiques à la crise climatique

Michelle Foggett-Parker

Cite this document

Article abstract

As Canada's climate warms at double the rate of the rest of the world, Canadian libraries have an important responsibility towards guardianship and activism on the climate crisis. Libraries are often appraised on their climate change goals by inward-facing factors, such as building standards and collections. While these remain important, this paper proposes a taxonomy that develops assessment further outward in the direction of community activism and climate justice, and tests that taxonomy against the environmental sustainability indicators published by Ontario public libraries.

Getting Warmer: A Refined Taxonomy for Assessing Public Libraries' Response to the Climate Crisis

Il fait plus chaud : une taxonomie raffinée pour évaluer la réponse des bibliothèques publiques à la crise climatique

Michelle Foggett-Parker
Western University
mparke73@uwo.ca

Abstract / Résumé

As Canada's climate warms at double the rate of the rest of the world, Canadian libraries have an important responsibility towards guardianship and activism on the climate crisis. Libraries have long been assessed on their sustainability efforts by inward facing factors, such as building standards and collections. While these remain important, this paper proposes a taxonomy that develops assessment further outward in the direction of community activism and climate justice, and tests that taxonomy against the environmental sustainability indicators published by Ontario public libraries.

Alors que le climat du Canada se réchauffe deux fois plus vite que celui du reste du monde, les bibliothèques canadiennes ont une responsabilité importante en matière de tutelle et d'activisme face à la crise climatique. Les bibliothèques ont longtemps été évaluées sur leurs efforts en matière de développement durable en fonction de facteurs internes, tels que les normes de construction et les collections. Quoique ceux-ci demeurent importants, cet article propose une taxonomie qui développe une évaluation plus externe comprenant l'activisme communautaire et la justice climatique, et teste cette taxonomie par rapport aux indicateurs de durabilité environnementale publiés par les bibliothèques publiques de l'Ontario.

Keywords / Mots-clés

green library, environmental sustainability, climate change, assessment, taxonomy, sustainable library

bibliothèque verte, durabilité environnementale, changement climatique, évaluation, taxonomie, bibliothèque durable

Background

Canadians are living through a climate emergency. Health Canada (2022) warns that "the health of Canadians and their communities cannot be protected if warming continues unabated" (p.33), and according to Bush and Lemmen (2019), "Canada's climate has warmed and will warm further in the future, driven by human influence" (p. 6). But global warming is not equally distributed around the globe, or even in Canada, they add: "Both past and future warming in Canada is, on average, about double the magnitude of global warming. Northern Canada has warmed and will continue to warm at more than double the global rate" (p. 6).

Research has demonstrated a growing engagement exploring the intersection of libraries and the climate crisis (Fedorowicz-Kruszewska, 2022; Li & Yang, 2022). Green librarianship was first acknowledged as long ago as 1991 by James and Suzanne LaRue (1991): "Green Librarians can make a difference" (p.26). But thirty years later, Aldrich's (2021) recent call to action for libraries to respond to the climate crisis is direct: "there is no more time to waste" (p. 8), she implores, saying that libraries should be visible leaders to protect public assets and to support people through climate disruptions. Libraries have a crucial role to play in their communities to respond to the climate crisis. As Brunvand (2020) explains, public libraries exist as "a decentralized network of physical places with responsibility to geographically dispersed communities; they have a mandate to preserve cultural knowledge; and the profession of librarianship has a strong professional ethic of inclusivity" (p. 19). Sahavirta (2018) notes that libraries are well-placed to respond to calls for action on environmental sustainability.

Definitions

Morelli (2011) describes environmental sustainability as "meeting the resource and services needs of current and future generations without compromising the health of the ecosystems that provide them" (p. 5). The *Online Dictionary for Library and Information Science* only defines a green library by its building and administration, describing it as "designed to minimize negative impact on the natural environment and maximize indoor environmental quality by means of careful site selection, use of natural construction materials and biodegradable products, conservation of resources, and responsible waste disposal" (University of California Santa Barbara Library, n.d.).

Fedorowicz-Kruszewska (2021) expands the definition of a green library beyond the facility, stating it is a "library aimed at environmental sustainability" (p. 649) and that green librarianship is "a set of skills and activities that are necessary to achieve a library's objective, which is environmental sustainability" (p. 649). Fedorowicz-Kruszewska identifies that the Environment, Sustainability and Libraries (ENSULIB) section of the International Federation of Library Associations and Institutions (IFLA) defines a green library as "a library that is environmentally aware and friendly, the

purpose of which is to draw attention to environmental sustainability at all levels as an example, educator and enabler" (p. 647). Moreover, the American Library Association (ALA, n.d.) adopted sustainability as a core value in 2019, defining it thus: "To be truly sustainable, an organization or community must embody practices that are environmentally sound AND economically feasible AND socially equitable" (para. 2).

Indicators of a Green Library

Early research has mainly focused on the library buildings themselves and their physical green credentials. Antonelli (2008) first established some indicators of a green library; they were mainly focused on the facility but did also touch on programming, librarian education and library association engagement. Antonelli's Green Libraries blog, profiled by Pinkowski (2007), details green library indicators such as sustainable site selection and development, water conservation, energy efficiency, local resources, material conservation and waste reduction, indoor environmental quality, and innovation in design (Antonelli, n.d.).

But a green library is more than just a green building (Hauke, 2019; Sahavirta, 2018). Libraries must stretch our vision of environmental engagement to every role and responsibility. Sahavirta expanded prerequisites for a green library to include creating an environmental strategy, promoting recycling and sharing, ensuring open access to environmental information, and raising environmental awareness in communities.

IFLA's Green Library Award also points towards broader indicators of environmental sustainability. Established in 2015, the award aims to "advance the profession through illuminating the role of libraries and librarians in the advancement of sustainability standards and the promotion of specialized knowledge within professional practice" (Hauke, 2019, p. 2). The Green Library Award winners profiled by Hauke demonstrate different indicators of environmental sustainability. What is clear is that each of them goes beyond meeting building standards to deliver environmental programming, often beyond their facility walls (Hauke, 2019). In the United States, the Sustainable Libraries Initiative (SLI) launched a national certification program that grew out of the New York's Library Association's efforts to "create and guide leadership within the library profession and to provide tools to mobilize libraries to think and act sustainably" (Davis et al., 2022, p. 3). The twelve categories in the SLI are: organizational commitment, energy, materials management (waste and recycling), materials management (purchasing), transportation, land use, water, collective impact, social cohesion, community resilience, financial sustainability, and collections (Sustainable Libraries Initiative, n.d.).

Fedorowicz-Kruszewska (2021) was first to publish a taxonomy of environmental sustainability indicators. The taxonomy includes seven broad categories of indicators: strategies and plans, buildings and administration, equipment and products, collection, programs/services/projects, employee qualifications, and cooperation with the external environment.

Continuum on Becoming an Environmentally Sustainable Library

The IFLA Green Award, the Sustainable Library Certification Program, and research by Sahavirta (2018) and Fedorowicz-Kruszewska (2021) each contribute to a body of research that helps libraries to begin to critically assess their environmental sustainability efforts. Hsieh (n.d.) of the Racial Equity Arts Lab Forum proposed a Continuum on Becoming a Fully Inclusive Arts and Cultural Organization which provides the framework for organizations to reflect and assess their journey towards an organizational mission.

Building on that work to refine indicators and organizational assessment, I have created a taxonomy that presents a Continuum of Becoming an Environmentally Sustainable Library (see Table 1). This draws on ENSULIB's more holistic definition of a green library and consists of a continuum that includes multiple levels and categories. As Davis et al. (2022) posited, library sustainability is a journey, not a destination—and so this continuum is a journey from acknowledgement of climate change through engagement to activism. The purpose of this continuum is for libraries to conduct organizational assessments of their environmental sustainability and to encourage dialogue on what has been achieved and where areas for growth lie.

Table 1

Continuum on Becoming an Environmentally Sustainable Library

	Acknowledgement: Library begins to acknowledge climate change and the need for the library service to be environmentally sustainable.		Engagement: Library actively engages with environmental sustainability and climate change limiting activities.		Activist: Library embraces role as advocate for environmental sustainability.	
	1. Library does not acknowledge climate change.	2. Library acknowledges climate change.	3. Library partners, but does not take the lead, on environmentally sustainable action.	4. Library takes the lead on environmentally sustainable action, alone or in co-operation with external organizations.	5. Library demonstrates environmental sustainability across functions and advocates for change in its sphere of influence.	6. Library is a recognized advocate for environmental sustainability and climate justice in its community.
Strategies and Plans	No strategy or plans.	Library consulting on development of environmental sustainability (ES) strategy.	Library has ES strategy imposed by government/ funder.	Library developing ES strategy. Library has active climate change or environmental committee meetings/ structures.	Library publishes own ES strategy and policies. Library has environmental sustainability award/ recognition/ certification.	Library publishes own ES strategy and policies with measurements and reports on progress.

People	No roles relating to environmental sustainability. No training for staff on environmental sustainability.	No roles relating to environmental sustainability. Staff can attend external training on environmental sustainability.	Employee training in environmental sustainability.	Library hires short- or long-term climate change and/or environmental sustainability specialists, e.g. Environmentalist-in-Residence.	Library includes sustainability skills in job descriptions.	Library hires a sustainability librarian.
Building and its Administration	No evidence of environmental sustainability in managing library facility and administration.	Library researches "green" and environmentally sustainable approaches to managing facility, information technology and library functions.	Low-cost measures implemented in building administration to lessen environmental impact of library facility/ information technology, for example environmentally friendly cleaning products or waste segregation.	Library facility assessed for environmental impact. Library location and environmentally friendly transportation options are considered and communicated. Evidence of resource saving. green information technology practices. Signs instructing users how to save resources.	Situation of the library contributes to ecology/ environmental management. Non-capital projects implemented to make facility more environmentally sustainable.	Library facility is a recognized "green" building with credentials (e.g. LEED certification).
Collection	Collections management plan does not include climate/ environment/ ecology topics.	Collections include resources on climate-related topics.	Collecting print books, ebooks, magazines, e-magazines, or pamphlets on climate change, environmental sustainability.	Creating pathfinders, reading guides, or displays about climate change and environmental sustainability. Creating online or physical displays on topics such as climate change and/or Earth Week.	Collection management plan identifies climate literacy and environmental sustainability topics for collection.	Library actively seeks out new climate-related topics and prioritizes these for collection. Library has measurably increased these collections.

Programs and Services	Library participates in no programs and services relating to environmental sustainability; may actively prevent such programs/ services from happening.	Library welcomes climate-related programs and services. Programs and services may or may not have occurred, but the library's stance is open to hosting.	External organizations host programs or services relating to environmental sustainability at the library. Programs and services are led by external organizations. Library hosts timebound programming (e.g. Earth Week). Programs and services are intermittent and not continuous.	Library initiates and hosts programs relating to climate justice and environmental sustainability. May be intermittent or continuous but the library is driving the programs/ services. Examples include: sharing programs (e.g. seed exchange), loan programs (e.g. power meter loan), reading books on environmental issues out loud (children), preparing information on environmental topics, or providing information on environmental sustainability and ecology.	The library initiates programming about climate and environmental sustainability. Programs are held at the library and are widely marketed to external users. There is breadth and depth to the library's ES offerings, including year-round programming tailored to a variety of ages and abilities.	Library initiates and leads climate and environmental sustainability programming outside the library facility. The library leads activist programs and services, defined by being outside the library building and encouraging action on climate change.

Ontario Public Libraries

To test the taxonomy, I undertook a brief content analysis of Ontario public library websites. White & Marsh (2006) adopt an understanding of content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorf, 2004 in White & Marsh, 2006, p. 23). Following White & Marsh's steps for content analysis, web pages were selected as the appropriate data for analysis. Web pages are acceptable text for content analysis as they meet seven criteria: cohesion, coherence, intentionality, acceptability, informativity, situationality, and intertextuality (Beaugrande & Dressler in White & Marsh, 2006). Hill (2020) and Moynihan and Clarke (2022) previously used content analysis of Ontario public library websites to investigate research questions about Ontario public libraries.

The Government of Ontario (n.d.) maintains a web directory of Ontario public library websites. This web directory became the sampling frame for the content analysis. Purposive sampling of web pages was applied, whereby websites for library services directly linked from the Government of Ontario web directory were selected for sampling. In total 65 websites representing 65 respective municipal public library systems were selected. Of the library websites examined, 13 (20%) displayed at least

one environmentally sustainable indicator articulated in the continuum, meaning that 80% of the websites had no mention of environmental sustainability indicators. Of those libraries that did demonstrate environmental sustainability indicators, most achieved levels 1–4 on the continuum. Halton Hills Public Library (HHPL) has the most environmental sustainability indicators across a number of categories and different levels. HHPL has two certified LEED buildings and publishes the municipality's green plan on its website. The library runs year-round sustainability programming, maintains and publicizes a climate change booklist, and partners with local conservation authorities to give access to free passes to conservation areas. Further examples include a seed exchange, an energy meter exchange and a storywalk about an Ojibwe girl who fights an oil pipeline (HHPL, n.d.). London Public Library demonstrated an activity that placed it in the "Activist" category under strategies and plans: in 2018 the library published its own environmental strategy (London Public Library, 2018). Considering the small sample of 65 library web pages, the next step should be a content analysis of all Ontario public library websites included in the Government of Ontario's web directory to test and refine the taxonomy.

Call to Action

Canada is warming at twice the rate of the rest of the world (Bush & Lemmen, 2019). And yet, I found that only 20% of public libraries investigated in Ontario demonstrated indictors of engaging with environmentally sustainable action across broad categories such as strategies and plans, people, buildings and administration, collection, and programs and services. Of the 20% of public libraries that demonstrated indicators, most fell under "Acknowledgement" and "Engagement", with a few public libraries demonstrating "Activist" activities. Libraries are important sites for environmental action that connect the local to the regional and the regional to the global. The Continuum on Becoming an Environmentally Sustainable Library is a taxonomy that can serve as one way of starting a conversation at institutions about environmental sustainability. While ALA hosts the Sustainability Roundtable and IFLA hosts ENSULIB, Canada needs distinctly Canadian and small regional conversations that centre our country's unique challenges in the climate emergency. Inspired by the Sustainable Libraries Initiative, I recommend that Canada and/or provinces and territories develop their own Environmentally Sustainable Libraries Communities of Practice (CoP) to share and communicate good practice and action, with the hope of eventually creating a critical mass of environmental sustainability research and action in Canadian libraries.

References

Aldrich, R. S. (2021). Climate action now. *Library Journal, 146*(12), 8-9.

American Library Association. (n.d.). *Sustainability and libraries: ALA and sustainability*.

Antonelli, M. (n.d.). *A website for information about green and sustainable libraries*. Green Libraries.

Antonelli, M. (2008). The green library movement: An overview and beyond. *Electronic Green Journal, 1*(27).

Brunvand, A. (2020). Re-localizing the library: Considerations for the anthropocene. *Journal of Critical Library and Information Studies, 3*(1), 1-25.

Bush, E. & Lemmen, D. S. (2019). *Canada's changing climate report*. Government of Canada.

Davis, J., Ferriss, J., & Kropp, L.G. (2022). Walking the path to sustainable library certification. In R. Tanner, A.K. Ho, M. Antonelli, & R.S. Aldrich. (Eds.), *Libraries & sustainability: Programs and practices for community impact* (pp. 3-16). ALA Editions.

Fedorowicz-Kruszewska, M. (2021). Green libraries and green librarianship – Towards conceptualization. *Journal of Librarianship and Information Science, 53*(4), 645–654.

Fedorowicz-Kruszewska, M. (2022). Green library as a subject of research – a quantitative and qualitative perspective. *Journal of Documentation, 78*(4), 912–932.

Government of Ontario. (n.d.) *Ontario public libraries*.

Halton Hills Public Library. (n.d.) *Welcome to HHPL: Imagination, innovation and opportunity.*

Hauke, P. (2019). Green libraries towards green sustainable development. Best practice examples from IFLA green library award 2016–2019. In: IFLA WLIC, Athens, Greece, 24–30 August.

Health Canada. (2022). *Health of Canadians in a changing climate: Advancing our knowledge for action*.

Hill, H. (2020). Ontario public library websites and the framing of disability. *Partnership: The Canadian Journal of Library and Information Practice and Research, 15*(2), 1–17.

Hsieh, K. (n.d.). *Continuum on becoming a fully inclusive arts and cultural organization.* Racial Equality Arts Lab Forum and Crossroads Ministry

LaRue, J. & LaRue, S. (1991). The green librarian. *Wilson Library Bulletin, 65*(6), 26–27.

Li, S. & Yang, F. (2022). Green library research: A bibliometric analysis. *Public Library Quarterly.* Advance online publication.

London Public Library. (2018). *Environmental strategy*.

Morelli, J. (2011). Environmental sustainability: A definition for environmental professionals. *Journal of Environmental Sustainability, 1*(1), 1-9*.*

Moynihan, B., & Clarke S. J. (2022). Online content analysis of Ontario public libraries' sensory programming and service offerings. *Emerging Library & Information Perspectives, 5*(1), 28–63.

Pinkowski, J. (2007). Keeping track of green libraries. *Library Journal, 132*(15), 27.

Sahavirta, H. (2018) A garden on the roof doesn't make a library green. In: Hauke, P, Charney, M, Sahavirta, H (eds). *Going green: Implementing sustainable strategies in libraries around the world – Buildings, management, programmes and services* (pp. 5–21). De Gruyter Saur.

Sustainable Libraries Initiative. (n.d.). *Sustainable Libraries Certification Program FAQ.*

University of California Santa Barbara Library. (n.d.) Green library. *Online Dictionary of Library and Information Science.*

White, M. D. & Marsh, E. E. (2006). Content analysis: A flexible methodology. *Library Trends, 55*(1), 22–45*.*