From Green Literacy to Sustainability Transliteracy: A Broader View at Green Libraries' Business

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The paper aims to highlight the various literacies that interplay within the concept of the Green Library, beginning with the long discussed social role of libraries and librarians in general. When accepting the role of educators in teaching information literacy the next logical step for Green Libraries is to engage in more than information literacy but in green (trans)literacy which means drawing attention to environmental awareness and responsibility. The paper will go from definitions of environmental, ecological, green, and sustainability literacy to the concept of “Sustainability Transliteracy”. This leads to the special role of Green Libraries, working with all available tools and platforms to practise by example, to teach and to engage their community to thinking and acting sustainably and responsibly.

Transliteracy, Sustainability, Libraries, Sustainable Development Goals

Introduction

The role of libraries in society has changed. Public libraries, as well as academic libraries and librarians, are called to play an active role in their communities and society in general by meeting the needs of people first regardless of the type of materials or methods used. As Richard David Lankes (2011) noted, "The mission of librarians is to improve society through facilitating knowledge creation in their communities" (p. 8). Since the advent of the green library movement (Antonelli, 2008; Armstrong, 1971), libraries' commitment to more than just storing and lending books has become more and more visible. Today the current motto, supported by the International Federation of Library Associations and Institutions (IFLA) (2018), is "Sustainability is libraries' business!" which is a call for acting as exemplars, educators, and enablers, in terms of sustainability. Sustainability, within the context of IFLA, refers to the United Nations 2030 Agenda for Sustainable Development (United Nations, 2015), which comprise of 17 Sustainable Development Goals (SDGs). Goal no. 9 "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" claims as sub-goal no. 9.c "Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in the least developed countries by 2020". Meanwhile (2022) the experiences with the Covid-19 Pandemic have dramatically underlined the need of access to information technologies, information literacy, and reliable information, not only in less developed countries but worldwide. Facing the overwhelming amount of Covid-19 related...
fake news the necessity of Media Literacy became evident: "Media literacy builds an understanding of the role of media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy." (Vinney, 2022). Goal no. 9.c refers to the requirements for Information Literacy as the ability "to know when there is a need for information, to identify information for that need, and to be able to locate, evaluate and effectively use that information" (American Library Association, 2006). It is clear that the need for sustainability does not stop at the paper, but it includes digital and visual information as well. This is where transliteracy comes into place. Transliteracy has been defined as "the ability to read, write and interact across a range of platforms, tools, and media from signing and orality through handwriting, print, TV, radio, and film, to digital social networks" (Thomas et al., 2007, p. 101), and goes one step further than merely looking for information. Still, it emphasizes the ability to act and interact across all media.

Coming from this definition, it seems to be evident that the concept of Green Literacy is not so far from the idea of transliteracy. Both are focusing not only on information but use all tools available to achieve multiple literacies and competencies.

The concept of transliteracy has long been introduced to libraries of all types through conferences, workshops, grant proposals, and also appears in job descriptions (Newman, 2012). The concept of using a variety of tools to implement interactive initiatives in libraries is not new. Although the concept has become a natural part of library information work (Andretta, 2009; Zanin-Yost & Tammaro, 2021), the term "transliteracy" has not been used for what librarians have long practiced in their public or academic libraries or when focusing on green literacy in so-called green libraries. But what does green literacy mean? Is it only about the so-called environment, about trees and birds and clean air? The term green stands for life as a whole. It is all about a life worth living. It is about as many as the survival of our planet.

The Role of Libraries and Librarians in Society

The role of libraries has long been discussed, but nowadays, there is a consensus that libraries are no longer just book storage systems, archives, museums, book lending stations, or database providers. Discussing the role of libraries in our society means talking about more than information and its dissemination. Speaking about the role of libraries in our society means speaking about a major role of the library in education (Boucher & Lance, 1992) from Kindergarten up to university (Virkus & Metsar, 2004). But facing the global challenges of today, we need to step further: Libraries and librarians must become exemplars, educators, enablers for sustainability transliteracy. "We need librarians to teach, solve problems, and ultimately advocate on behalf of the community" (Lankes, 2016, p. 17). The role of librarians within environmental issues is defined by IFLA’s clear statement “Sustainability is Libraries’ Business!” (International Federation of Library Associations and Institutions, 2018). Following this statement, it is librarians’ business to teach – beside information literacy – explicitly environmental, ecological, green, and sustainability literacy. But is there any difference between them?
Environmental, Ecological, Green, and Sustainability Literacy

Awareness towards environmental, ecological, or green literacy has long been recognized since the 1990s. Since that time, not only the terms but different programs have become popular, and green literacy has become a pressing issue worldwide (Green literacy, n.d.; Wheeler, 2011). Here are highlighted the different meanings and terminologies used for the environmental, ecological, green, and sustainability literacys.

Environmental Literacy

The term environmental literacy emerged in 1968 (McBride, Brewer, Berkowitz, & Borrien, 2013). Then in 1991, when a group of environmentally concerned non-profit workers from the Green Library in Berkeley, California, and librarians from the University of Idaho Library in Moscow, Idaho, decided to publish a professional journal that would promote environmental literacy, the Green Library Movement was then recognized.

The most quoted definition of environmental literacy comes from the North American Association for Environmental Education (NAAE) saying, that an environmentally literate person as is “someone who, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well being of other individuals, societies, and the global environment; and participates in civic life. Those who are environmentally literate, possess, to varying degrees:

- the knowledge and understanding of a wide range of environmental concepts, problems, and issues;
- a set of cognitive and affective dispositions;
- a set of cognitive skills and abilities;
- and the appropriate behavioral strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts.” (North American Association for Environmental Education, 2011).

Ecological Literacy

Ecological literacy is also not a new term, first publicly used at the end of the 1980s and later in the 1990s (Orr, 1992), when "ecologists and non-ecologists alike realize the need for ecological concepts to be accurately taught to students in primary and secondary schools, to undergraduates, and to adults" (Klemow, 1991).

Core aspects of ecological literacy are:
1. [Understanding] principles of living systems
2. Design inspired by nature [organizations, communities, businesses, and societies]
3. Systems thinking [emphasizing relationships, connectedness, and context]
4. [The] ecological paradigm and the transition to sustainability
5. Collaboration, community building and citizenship
Ecological literacy focuses “on the key ecological knowledge necessary for informed decision-making, acquired through scientific inquiry and systems thinking” (McBride, Brewer, Berkowitz, & Borrien, 2013).

**Green Literacy**

The term "green literacy" was also recognized in the early 1990s (Usan, 1992) but underwent a change, and it is now defined as "the ability to understand the impact of human decisions and actions on the environment by raising awareness of sustainable development and encouraging critical thinking. Its task is to change the behavior of an individual or the entire institution" (Čadovska & Tkalčić, 2017).

**Sustainability Literacy**

The term sustainability has become a buzz term that people use to fit pretty much everything. Sustainability embraces more than environmental, ecological, or green aspects but incorporates economic, environmental, and social dimensions as it is outlined in the Triple Bottom Line concept (Shaffer, 2018). Consequently, the term "sustainability literacy" also embraces more than environmental, ecological, or green literacy but also economic and social literacy.

An often-quoted definition from the World Commission on Environment and Development (1987) is "to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs". This definition follows the one from the United States Environmental Protection Agency (EPA), which interprets to be sustainable as "to create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations" (2016).

The Handbook of Sustainability Literacy explains that the term sustainability:

indicate the skills, attitudes, competencies, dispositions and values that are necessary for surviving and thriving in the declining conditions of the world in ways which slowdown that decline as far as possible. Gaining practical skills requires a form of learning which goes beyond memorizing and repeating facts. It requires active learning, a broad term used to refer to self-reflection, self-directed enquiry, learning by doing, engagement with real life issues, and learning within communities of practice (Stibbe & Luna, 2010, pp. 10–11).

The need for education for sustainable development, to move from memorizing and repeating facts, from scientific literacy to sustainability literacy in all levels of education is essential to the foster ethical responsibility that has often been mentioned in the literature (Colucci-Gray, Camino, Barbiero, & Gray, 2006; Kurbanoglu et al., 2016). Universities have developed sustainability literacy courses (University of Utah, 2021) or even launched a sustainability literacy institute, like the College of Charleston, South Carolina, USA, "as part of a campus-wide commitment to fostering and promoting sustainability literacy" (2017) and to introduce "sustainability literacy as having the skills and knowledge to understand how all of our actions – as individuals, as communities and as nations – impact the environment, society and the economy" (College of Charleston, 2017). Training in sustainability literacy has also increased
thanks to the implementation of the United Nations Agenda Sustainable Development Goals in Higher Education (Sulit, 2016).

**Sustainability Transliteracy**

While terms like environmental literacy, ecological literacy, green literacy, and sustainability literacy have been well-established for a long time, the term "sustainability transliteracy" has emerged most recently. In respect to Thomas et al. (2007) and on Stibbe and Luna the concept of "Sustainability Transliteracy" could be defined as

“the ability to read, write and interact across all types of platforms, tools and media regardless of digital, analog or any other formats with the aim to develop the skills, attitudes, competencies, dispositions and values that are necessary for thriving in the declining conditions of the world in ways which slow down that decline as far as possible “(Stibbe & Luna, 2010, pp. 10–11).

Sustainability transliteracy might appear as a new approach, but the concept behind it is not new. Libraries in general and particularly so-called green libraries with their "emphasis on stewardship of resources and impact on the natural environment" (American Library Association, 2018) are predestinated – and have already practiced – to implement a concept of Sustainability Transliteracy in their daily routines as well as in their services. As essential agencies for providing information, libraries definitely address more than information literacy and act responsibly as exemplars, educators, and enablers of sustainability transliteracy.

If sustainability is becoming a libraries' business, libraries should – and some already do – use their positive image to set a precedent through their strategic planning and mission. In the context of already teaching information literacy – mainly in the academic environment – libraries have taken multiple responsibilities. Even if they don't call it that, they also convey sustainability transliteracy through their educational programmes.

For example the Boole Library at University College Cork in Ireland has made real and verifiable “green” changes, i.e. in the behaviour of the library’s users and staff – over 1000 students signed a pledge to support the changes. The initiative offered simple solutions to pervasive waste problems, to improve energy efficiency and generating a major impact. (University College Cork Library, 2019). Another example comes from Thailand. They have adopted the UN Sustainable Development goals as a managerial framework. Sustainability permeates nearly all of their infrastructure, operations and educational goals. The library controls its energy, paper and water usage as well as other activities and makes it possible to evaluate how well the goals are met. (Rangsit University Library, 2020).

**Green Libraries**

According to the Online Dictionary for Library and Information Science, a "green library" is defined with its synonym "sustainable library" as a
biodegradable products, conservation of resources (water, energy, paper), and responsible waste disposal (recycling, etc.). In new construction and library renovation, sustainability is increasingly achieved through LEED (Leadership in Energy and Environmental Design) certification, a rating system developed and administered by the US Green Building Council (USGBC). (Sustainable library, n.d.)

This often-repeated definition is focused just on the physical building. However, not all libraries can be rebuilt or restored to become a green library. Therefore, this definition needed to be updated, since that many authors have pointed out that green libraries are more than just physical buildings (Aulisio, 2013; Jones & Wong, 2016) and that "a garden on the roof doesn't make a library green" (Sahavirta, 2018, p. 5). While not all libraries can construct a new building or to renovate an existing one into a sustainable one, a broader approach is necessary to analyze all aspects and opportunities a library can have to meet the demands of an unsafe environment and, therefore a threatened society.

ENSULIB, IFLA’s Environment, Sustainability and Libraries Section published the definition with a broader view:

A green and sustainable library is a library which takes into account environmental, economic and social sustainability. Green and sustainable libraries may be of any size, but they should have a clear sustainability agenda which includes:

- Green buildings and equipment
- Green office principles
- Sustainable economy
- Sustainable library services
- Social sustainability
- Environmental management
- Commitment to general environmental goals and programmes (ENSULIB, 2022)

There have been many green literacy initiatives in the past years offered by universities, primary schools, etc., but courses or programmes on sustainability for or by librarians or libraries are still rare (Jankowska, 2013; Jankowska, Smith, & Buehler, 2014). On the other hand, many libraries have incorporated sustainability as part of their mission statements like the Weinberg Memorial Library at the University of Scranton, Pennsylvania:

The library is dedicated to making the library a sustainable environment by supporting conservation and recycling in the building, collaborating with students, staff, and faculty on projects focused on sustainability, and educating library users about sustainability and sustainable practices. (University of Scranton, n.d.)

Libraries, as cultural institutions, serve all members of society, and, in an era of participatory culture, where reams of information and communication opportunities through social media and the internet await, there should be a moral obligation to contribute to environmental education by providing more than just information. Librarians must take over the leadership on sustainability. As Smith Aldrich (2018) pointed out, "Adopting sustainability as a core value of our library, along with other standard core values such as access, democracy, literacy, community, intellectual freedom, stewardship, and adaptability, is a strong strategy to position our libraries for future success" (p. 41).
Green Libraries Facing Sustainability Transliteracy

As noted earlier, sustainability transliteracy appears only on the mission statement of a few libraries. The commitment to responsibly contribute to developing sustainability competencies that are necessary for thriving in the declining conditions of the world is already on the list of libraries and librarians all over the world. The following two examples were awarded as runners-up of the IFLA Green Library Award 2018 (ENSULIB, 2018):

The University of Douala Main Library in Cameroon implemented the concept of sustainability transliteracy using all types of platforms, tools, and media to develop skills and competencies that are necessary as "transformative steps which are urgently needed to shift the world onto a sustainable and resilient path" (United Nations, 2015). Noting that students attending the library were mostly young people with little concerns for preservation and environmental protection issues, the librarians developed a permanent program called "Library Day." Students searched for information on sustainability topics and events. At the same time, a well-trained team of librarians regularly monitored the entire websites of the United Nations, the African Union and World Days as well as the National Radio's news and the government daily newspaper with any information about, for example, the Environment's Protection Day and the entire comments of the minister in charge of Environment and Protection of Nature. The gathered data was displayed in a large glass board near the entrance to the library, completed by comments and statements from the library's managers, and by a display of all resources available in the library related to the theme of the day. As a result, these efforts have profoundly changed the students' attitudes not only within the library but also throughout the campus. Students have become increasingly responsible in terms of sustainability and – last but not least – politer. "They no longer drop rubbish carelessly as they have been made aware of waste's effects on the environment as well as the dangers of climate change throughout the world" (Koudjam Yameni, 2018, p. 179). Today the library bulletin board is a reference of how the university as a whole informs not just the students but the entire university community.

The public library of Bad Oldesloe in Germany followed the concept of community building (Genovese & Albanese, 2013) through sustainability initiatives using different types of digital, analog and other tools to foster skills and competencies that are necessary to building a sustainable community based on environmental awareness. "In combination with the urban gardening trend, the library set up a makerspace, acted as a platform for civic society around the issue and built up as well as strengthened the local community's knowledge on topics of sustainability" (Schumann, 2018, p. 11). Urban gardening, on a social level, is based on free knowledge sharing between gardeners, including local neighborhoods, on collaborative work and meeting. "The public library of Bad Oldesloe is an excellent example of a public library that implements ecological, environmental, and social solutions. Creativity and persistence combine the theoretical background of green and sustainable libraries with possible new services. The complex, human-centered, place-based aspects of the green library movement are apparent at the public library" (Schumann, 2018, p. 131). Makerspaces with their wide range of opportunities are part of the sustainability transliteracy concept. They are suitable instruments to interact across all types and forms of tools and media and effective ways to developing the skills and values that are required for promoting a heightened awareness about our threatened environment.

Conclusion

Libraries are essential spaces for citizen awareness of sustainability. They serve as exemplars, educators, enablers in terms of sustainability for achieving the United Nations' Sustainable Development Goals, summarized in goal 11: "Make cities and human settlements inclusive, safe,
resilient and sustainable." As institutions maintained by the state, public libraries as well as academic libraries, should use their positive image and their influence to fulfill their mission by collaborating not only to broaden access to information and to encourage reading and sustainable practices but to introduce and realize the concept of Sustainability Transliteracy.

Referencias


Sahavirta, H. (2018). A garden on the roof doesn't make a library green: A case for green libraries. In P. Hauke, H. Sahavirta, & M. Charney (Eds.), Going green: Implementing sustainable strategies in libraries around the world; Buildings, management, programmes and services (IFLA Publication, 177, pp. 5-21). Berlin [u. a.]: De Gruyter Saur.


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