

EVOLVING TECHNOLOGIES

IN LIBRARIANSHIP: TODAY AND THE FUTURE

A Festschrift in Honour of



PROFESSOR EMEM PAUL UDOFIA
CLN, FCIPP, FIIKM

Edited by:
Felicia E. Etim
Philip U. Akor
William O. Nkanu

Table of Contents

Dedication.....	iii
Acknowledgments.....	vi
Preface.....	vi
Forward.....	vii
The Contributors.....	viii
Contents.....	xi
About Professor Emem Paul Udofia.....	xv
Chapter 1: Harnessing the benefits of digital literacy skills in librarianship	1-8
Ikenna Cyril Ihejirika, Afam Eziam & Jonathan Amadi	
Chapter 2: The Role of Social Media Platforms in Promoting Scholarly Communications.....	9-17
Solomon Olusegun Oyetola	
Chapter 3: Optimization of assistive technology for enhanced access and utilization of digital information resources among university students with albinos in North Central, Nigeria.....	18-33
Nathaniel Agbo Oche	
Chapter 4: Evolving technologies and continuing relevance of librarianship In Nigeria: adapting and thriving in the digital age.....	34-42
Mbuotidem Umoh & Augustine Utuk	
Chapter 5: Incorporating Makerspaces and 3D Printing in Tertiary Institution Libraries to Foster Creativity, Innovation, and Hands-On Learning.....	43-52
Hilda Eno Obi	
Chapter 6: Analyzing the Economics of Library Services Delivery: Trends and Strategies.....	53-58
Rita Dumbiri, Princess Clementine Owairu, Blessing Akpofure Ogagbe & Bolaji David Oladokun	
Chapter 7: Digital literacy for all: Bridging the divide in the use of library technologies in Nigerian libraries.....	59-69
Vivien Oluchi Emmanuel & Emmanuel Adeniyi Oloniruha	
Chapter 8: Digital Publishing: Navigating the Transition from Traditional to E-Publishing.....	70-80
Uduak U. Enang, Hawwau Adedayo Moruf & Ibanga Patience Etoroabasi	
Chapter 9: Components of Electronic Libraries.....	81-92
Onyema Nsirim & Chigozie Comfort Ngwu	

Chapter 10: Information Literacy in the Digital Era: Empowering Students For Lifelong Learning.....	93-101
Ayefu Ibn Omale, Victor Sanni, & Enejoh Oguche	
Chapter 11: Social media platforms as tools for teaching and learning support in LIS departments in federal universities in North Central Nigeria.....	102-117
Victor Ozowa & Benedict Ifeanyichukwu O. Okike	
Chapter 12: Internet of things (IoT) in library services: a review of trending technology.....	118-125
Lasbery Adindu	
Chapter 13: AI Literacy: A Panacea to the Prevailing AI Abuses.....	126-133
Shuaib Agboola Olarongbe, Iyal Usman & Abdulakeem S. Sulyman	
Chapter 14: Building sustainable green libraries: integrating diversity, inclusion, and eco-friendly practices in the digital era.....	134-144
Oluwatosin Daniel Akobe, Prisca Oluchi Chucks-Ibe, Onivehu AbdulRaheem Kareem & Bilal Arome Dauda	
Chapter 15: Implementation standard of media and information literacy instruction in private secondary school libraries.....	145-158
Esther E. Abidiak	
Chapter 16: Librarians' knowledge, awareness, and challenges of AI adoption for school library services in Ile-Ife Osun State, Nigeria.....	159-167
Abiola Amos Okunlola	
Chapter 17: Social media platforms for community engagement, marketing and the dissemination of information.....	168-175
Judith S. Nse, Kingsley N. Egbukole, Charity O. Iwuchukwu & Peter O. Moneke	
Chapter 18: Influence of retrospective conversion on the provision of information services in public universities in Akwa Ibom and Cross River States of Nigeria.....	176-184
Jatto Emmanuel, Emem Paul Udofia & Asaha Nnana Edet	
Chapter 19: Exploring the application of artificial intelligence on digital preservation and archiving information resources.....	185-197
Chidi Onuoha Kalu & Oluchi Bridget Ibeh	
Chapter 20: Cloud Computing in Library Services.....	198-206
Mercy Enefu Okwoli	
Chapter 21: Intersection of Technology and Traditional Storytelling in School Libraries.....	207-212
Edidiong I. Eyo & Esther E. Abidiak	

Building sustainable green libraries: integrating diversity, inclusion, and eco-friendly practices in the digital era

Oluwatosin Daniel Akobe, Prisca Oluchi Chucks-Ibe, Onivehu AbdulRaheem Kareem
& Bilal Arome Dauda

Introduction

Building sustainable green libraries in the digital era necessitates a balanced approach that integrates diversity, inclusion, and eco-friendly practices. As libraries transit into the future, the importance of creating inclusive spaces that cater to diverse communities cannot be overstated. Simultaneously, adopting environmentally responsible strategies, such as reducing carbon footprints, promoting the use of renewable energy, and minimizing paper usage, aligns with "Sustainable Development Goals (SDGs) 11: Sustainable Cities and Communities". The digital transformation of libraries offers a unique opportunity to embrace eco-friendly technologies while advocating inclusivity through accessible digital resources, ensuring that everyone, regardless of background, can benefit from modern library services. This encompassing approach not only preserves the environment but also promotes equity in access to knowledge and resources.

Evolution of Libraries in the Digital Age

Libraries have undergone a dramatic metamorphosis in the digital age, moving from static, physical locations to dynamic, digital information hubs. The internet, cloud storage, and digital databases have allowed libraries to offer more than just bookshelves; they now give users access to a wealth of online resources. Increased accessibility has been made possible by this change, enabling users to access information remotely and at any time. The integration of cutting-edge technology like artificial intelligence (AI), digital archives, and e-resources into modern libraries has transformed the role of librarians and promoted a more inclusive and collaborative information environment.

Silliman University Library System (2023) is of the opinion that the proliferation of digital resources and the internet have put the traditional function of libraries as physical locations for book loans and information access under pressure. But libraries have changed and grown to meet the needs of their communities in the digital age, rather than going out of style. Areas of evolution for libraries in the digital age include collaboration, community outreach, embracing technology, redefining the role of the librarian, and reimagining the physical space. Consequently, imbuing the global culture and tradition of sustainability, inclusion, and diversity for library development is a great step towards achieving green libraries.

Green Libraries

As the role of libraries gradually tilts towards more inclusive deliveries for the users, a library that supports environmental sustainability, energy efficiency, and

community well-being can be termed a green library. These types of libraries are uniquely designed to minimize environmental impact while maximizing the health and comfort of users at the same time. According to the American Library Association (ALA) Task Force on the Environment, green libraries have been described as libraries that submit to principles of sustainable design, construction, and operation to minimize negative environmental impacts, conserve natural resources, and promote awareness of sustainability and environmental issues among users.

Also, Miller (2010) closely opines that libraries that incorporate sustainable architecture, energy-efficient technologies, and environmentally responsible practices in their day-to-day operations, aiming to reduce their environmental impact while creating healthier, more accessible spaces for all users are green libraries. In making a green library, certain approaches or strategies are needed. Pressreader Team (2024) in a blog post suggested the following *strategies by which libraries can significantly reduce their carbon footprint and contribute to a more sustainable life for their communities*.

- **Efficient and renewable energy:** Implement energy-saving Heating, Ventilation, and Air Conditioning (HVAC), lighting, ventilation, and air conditioning technologies to create a more environmentally friendly library. To reduce power use, this can involve utilizing energy-efficient appliances, programmable thermostats, and LED lighting. To provide electricity, a library may also think about putting in solar panels or making investments in other sustainable energy sources. This may lessen the need for fossil fuels and cut down on greenhouse gas emissions.
 - **Water conservation:** It's important for green libraries to implement water-saving measures such as installing low-flow faucets and toilets, and using drought-resistant landscaping. This helps conserve water resources and reduces electricity usage associated with water treatment and distribution.
 - **Green libraries go digital:** Librarians should increase digital access to library resources to reduce the need for physical materials and transportation. This includes digitizing collections, offering eBooks and online databases, and library resources accessible remotely.
 - **Promote sustainable transportation:** Encourage staff and patrons to use sustainable transportation options such as walking, biking, carpooling or using public transportation when visiting the library. Providing bike racks and designated parking for fuel-efficient vehicles can also encourage eco-friendly commuting.
 - **Waste reduction and recycling:** Implement recycling programs for paper, plastics, glass and other recyclable materials. Encourage the use of reusable containers, cups, and utensils in library cafes or at events. Reduce paper waste by printing double-sided and encouraging electronic communication and documentation.
 - **Green procurement:** Source environmentally friendly products and materials for library operations, such as recycled paper, non-toxic cleaning supplies and sustainable furniture. Consider the environmental impact of purchasing decisions and choose vendors with strong sustainability practices.
-

- **Education, outreach and collaboration:** Raising awareness among staff and patrons about environmental issues and encourage eco-friendly behaviors would help to achieve green libraries. Libraries can offer educational programs, workshops and events focused on topics such as climate change, conservation and sustainable living in partnership with local government agencies, community organizations, and other stakeholders to advocate for policies that support environmental sustainability. Collaborate on community-wide efforts such as tree-planting campaigns or up cycling initiatives.
- **Green building design:** When constructing or renovating library facilities, prioritize architecture and design principles that characterize green buildings, such as efficient insulation, natural lighting and passive heating and cooling techniques. Aim for LEED (Leadership in Energy and Environmental Design) certification or other green building standards.

Understanding Sustainability, Diversity, and Inclusion in Contemporary Libraries
The idea of "sustainability" has long been around for nearly four centuries. In its early times, it was mostly used in environmental discussions, emphasizing the Earth's ability to support human activity over time. The origin of sustainability can be traced to the early writings of scholars like Thomas Malthus in the late 1700s. Fast forward to April 22, 1970, over 20 million Americans took to the streets to demonstrate peacefully in favor of environmental reform. This was prior to the prominence of "climate change" and "sustainable development" as common parlances used in many fields around the world today.

Keying into this vision led by Gaylord Nelson, the UN General Assembly set aside April 22 as International Mother Earth Day through a resolution which was adopted in 2009. More recently in 2019, the American Library Association using a model called the "Triple Bottom Line" adopted sustainability as a core value of librarianship, noting that this consists of practices that are environmentally sound, economically feasible and socially equitable. Sustainability has grown to become a matter of concern to many contemporary libraries, carrying with it diversity and inclusion.

Building sustainable libraries in the digital era requires a concerted effort to prioritize diversity and inclusion in all aspects of library operations. By fostering equitable access, diversifying collections, creating inclusive spaces, and leveraging technology for outreach, libraries can ensure that they remain vital hubs of knowledge and community for generations to come. Libraries play an important and unique role in promoting community awareness about resilience, climate change and a sustainable future. They are also leading by example by taking steps to reduce their environmental footprint (Pressreader Team, 2024). Libraries have long been an essential community resource, and they still have a lot to contribute to education and lifelong learning. But libraries are evolving to better serve their communities and support them in navigating the digital era as the world around them changes. Libraries are demonstrating that they are more than simply places to check out books; rather, they are places to learn, interact, and develop. This is

evident in how they are adopting new technologies, reinventing the job of the librarian, and rethinking the physical space to focus on community outreach.

Overview of Green Libraries

A green library, also variously referred to as an ecologically friendly, environmental, or sustainable library, is a sort of library that embraces environmentally friendly practices in operation to have minimal impact on the environment for sustainability. Such libraries pay great attention to energy efficiency, waste reduction, resource preservation, and renewable materials. They use green building designs, applying natural lighting, solar energy, and sustainable materials in building. Green libraries also inculcate the concepts of the circular economy in recycling and reusing materials. The concept of the green library has come to be a result of increasing awareness of environmental issues and the need for libraries to act like models of sustainability in their communities (Antonelli, 2008). The concept of the green library emerged, actually beginning in the early 21st century, when activities were stirred up by this global call to action on climate change. Library organizations such as the ALA (American Library Association) and IFLA (International Federation of Library Associations and Institutions) have advocated guidelines and standards so as to support the establishment of sustainable libraries. Green libraries are designed not only to reduce their impact on the environment but also to be venues for educating the public on sustainability through programming and resources on environmental literacy. Throughout the course of the evolution of the movement, libraries incorporated the notion of green practices into the core of the operations—from building design to daily activities (Jankowska & Marcum, 2010).

Diversity and Inclusion

Diversity and inclusion are integral features of green libraries in that the members of the community should have equal access to the resources and services of the library irrespective of the background of the member. Inclusiveness and diversity are reflected in any library, showing not only the surrounding community it serves but also bringing equal opportunities for learning and involvement. Indeed, inclusion is a way of ensuring that the information, programs, and services for the otherwise marginalized and underrepresented groups are equitably available. In the context of green libraries, diversity and inclusion go hand in glove with environmental justice. Reactions to environmental degradation disproportionately fall along lines where vulnerable populations sustain the gravest blows (Dali & Caidi, 2015).

Diverse and inclusive green libraries are those that provide resources and services that are easily accessible to their patrons, whether the patrons are physically disabled, come from different languages and cultures, and even socioeconomic backgrounds. Green libraries could make great contributions by embracing diversity to develop good community relationships that would help decrease disparities in accessing information and services. Libraries should also ensure that their environmental and educational programs reach children, older adults, new immigrants, and other users from disadvantaged communities (Cooke, 2017).

Importance and Best Practices for Fostering Inclusion in Library Services

The delivery of full library services requires attention to diversity and inclusion matters. Libraries should commit to serving all users, including those with disabilities, by reflecting community needs in their collections, programs, and buildings. Libraries are better able to make everyone feel welcome, represented, and supported by fostering inclusivity. In green libraries, this would mean that from the aspects of sustainable initiatives to the low-income patron and those with challenges in mobility, all have equal access and benefits accruing from the initiatives.

The services that would help in this regard would be those services which would provide a sense of belonging and affiliation among the patrons with the library. Furthering this effort by supporting collections in various languages, culturally sensitive programming, and facilities accessible to all would develop their importance. By enabling an inclusive green design in these libraries through the use of ergonomic furniture, barrier-free entrances, and accessible technologies, the user experience would be enhanced altogether (Jaeger et al., 2015).

Inclusion will involve offering representative collections that give reason to diversity in cultures, languages, and identities. Libraries can easily ensure that their digital resources, physical spaces, and programs are inclusive because it often includes regular assessments to identify and remove access barriers. Community members in green libraries can participate in decision-making processes and enable patrons to be part of sustainable initiative design and implementation themselves.

The libraries can also develop a partnership with local organizations and community groups for better understanding of the needs of under-represented populations and collaborative projects with diversity in mind. Other best practices are provided through training on issues of diversity, equity, and inclusion to help library staff understand diverse patron needs and thus provide equal service. In addition, applying policies of inclusion and sustainability could effectively promote both inclusion and environmental variabilities-including using eco-friendly materials in programs serving diverse audiences (Subramaniam & Jaeger, 2011).

Digital Transformation

The digital development of libraries brought huge changes in their way of working, whereby services can be effectively delivered more efficiently and in a sustainable manner. E-books, online databases, and digital archives reduce the need for physical materials, hence reducing carbon emissions from the library. Furthermore, collection digitization not only preserves priceless resources but also enables dissemination of the same to any part of the world. With the increased integration of digital tools into service delivery, modern libraries go further in refining user experiences characterized by instant access to information and personalized services (Breeding, 2018).

Besides, digital transformation makes a sustainable practice by reducing consumption of paper, energy used in transportation, and waste from trashed materials. Many libraries, therefore, have embraced green technologies that further minimize environmental degradation, such as cloud computing and energy-efficient servers. In addition, it makes the services inclusive because people who may face physical or geographical challenges to reach the physical location of a library are able to have access to information remotely.

Impact of Digital Technologies in Libraries

The digital technologies have completely changed the way in which libraries store, organize, and disseminate information. Moving toward digital services made them more flexible and accessible, especially in circumstances when physical infrastructure was still at a pretty low level of development. Digitization allows libraries to reach a wider audience and provide access to resources for users at remote locations or for users who cannot visit due to disabilities or other constraints. On the other hand, the use of digital tools can provide the opportunity for libraries to extend more personalized services, including custom reading recommendations, virtual reference services, and interactive online programming (Lankes, 2016).

From a sustainability perspective, digital libraries reduce consumption of physical materials such as paper and printing energy. This has greatly reduced the environmental footprint of libraries by making them less space-consuming to store the physical materials, sharing economies through e-lending. Furthermore, through reduced physical interaction, libraries can help reduce the emissions of greenhouse gases, especially in urban areas when a commute to libraries may result in air pollution (Antonelli, 2008).

Role of Technology in Promoting Sustainability and Inclusion in Libraries

Technology contributes to various resourceful and inclusive practices in the library. Libraries take up the green initiative through technologies that are environmentally friendly as related to reduced carbon emission and include energy-efficient lighting, water saving, and digitization. In this regard, automated systems of light and HVAC controls will reduce, on average, the amount of energy used whereas online service usage will reduce paper use and physical resource needs altogether. Changes brought by technologies enable libraries to become more sustainable and offer better services at the same time to various audiences (Aulisio, 2013).

Technology has also been of great importance when including more users in making library resources available. Digital platforms have enabled libraries to disseminate services to patrons who cannot physically reach the library due to living in remote areas, people with disabilities, and even those affected by socioeconomic barriers. In this respect, assistive technologies, such as screen readers and text-to-speech software, can give better access to digital collections to visually impaired users, while translation tools can enable resources in their native language for non-native speakers. Also, through applying technology, it is possible for libraries to

contribute to sustainable development and make sure that all services will be equal and accessible for every category of people.

Sustainable Practices: Implementation and Impact of Green Initiatives in Libraries

In order to promote environmental sustainability within the information sector, libraries have increasingly found it necessary to integrate green initiatives. These days, libraries are gradually transforming themselves into eco-friendly spaces, where sustainability practices such as conserving energy, managing waste and having sustainable architectural designs take precedence over everything else. Jankowska and Smith (2021) point out that green library not only attempt to minimize their environmental impact but also aim at fostering environmentally friendly behavior among users. This might entail using renewable sources of energy, optimizing water usage or using sustainable materials in the process of designing or renovating a library.

Through various resources and programs geared towards encouraging green living, libraries are vital in creating awareness about environmental sustainability among the public. Libraries can serve as community centers for environmental education by conducting workshops, lectures and other activities that deal with issues on recycling, energy efficiency or waste reduction as Panzarino and Maguire (2022) assert. Online resources and digital initiatives like e-book collections that reduce paper consumption serve to further solidify this agenda within libraries' green mandate.

Libraries that have changed their patterns of operation and behavior towards sustainable practices have been able to save on their expenditures due to a decline in the cost of operations assuming they were phasing out those dirty operations involving the same resources like water and electricity (Hicks et al., 2020). This may imply that they have shifted from conventional lighting systems to energy-efficient ones resulting into decrease in the amount spent on power supply thus enabling them finance other important services. More so, they implement measures such as recycling programs using eco-friendly cleaning products further attesting to this assertion.

Diversity and Inclusion: Effective Strategies and Community Engagement in Promoting Inclusivity

The libraries strive to ensure they represent the various cultural, social and demographic backgrounds of the communities they serve which is what diversity and inclusion entails. Diversifying library collections, improving access for people with disabilities and creating programs that meet the needs of marginalized communities are some of the effective inclusion strategies (Bradley et al., 2021). To foster inclusivity, libraries can also ensure that their physical spaces are accessible to all patrons, providing ramps, elevators and assistive technologies for persons who have physical disabilities (Birdi & Hall, 2023).

To advance inclusivity within a library set up community participation is paramount. Libraries can work closely with local communities to identify their

needs thus designing programs that reflect them. Libraries should develop links with local organizations and community leaders this would allow it to host events of cultural relevance tailored for certain groups (Campbell & Gibson, 2022). This way underrepresented voices get heard while making key decisions at the library level thereby promoting a strong sense of community ownership and participation.

Contribution of Digital Tools to Sustainability and Inclusion

Digital tools have played a central role in promoting sustainability and inclusivity in libraries. Online databases, digital archives, and e-books are examples of digital tools that make it possible for libraries to minimize their dependence on physical resources, which directly affects their sustainability objectives (Chigwada, 2023). Besides, these digital toolkits also allow the libraries to reach out to wider and diverse populations since users can access various materials from any location without being physically present in the library. For instance, this is advantageous for people who are faced with challenges such as geographical distance, disability or economic status (Igbinovia et al., 2022). In addition, through digitization, libraries can enhance collection diversity. By using data analytical tools and artificial intelligence technologies, they can find how their collections may lack some forms of representation thus curate materials that represent diverse voices and opinions (Leung & Liu, 2021).

Challenges in Implementing Sustainable and Inclusive Green Practices in Libraries

Implementing sustainable and inclusive practices in libraries presents numerous benefits; however, there are significant challenges associated with such initiatives. One of the primary obstacles is financial limitations. Many libraries lack the resources necessary to undertake green initiatives, such as constructing eco-friendly buildings or installing energy-conserving systems, making these measures financially prohibitive (McCullough et al., 2022). Additionally, the acquisition and maintenance of digital equipment designed to promote inclusivity further strain already limited library budgets.

Another key challenge is cultural and institutional resistance to change. Resistance may arise from both library staff and patrons, particularly on sensitive issues related to race, gender, and social justice (Chen & Bowman, 2022). Furthermore, the digital divide remains a substantial barrier. While the use of digital tools fosters inclusivity, not all communities have equal access to the internet or digital devices, thereby limiting equitable access to information (Oladokun et al., 2023). Despite the significant advantages of green libraries, numerous issues remain concerning their implementation. A major challenge is the financial burden associated with transitioning to sustainable infrastructure. This is especially problematic in developing countries, where libraries often cannot afford the costs associated with green building materials, renewable energy sources, and energy-efficient systems. Moreover, libraries frequently receive inadequate funding or support from local governments and other stakeholders, as environmental sustainability may not be seen as a priority (Aulisio, 2013).

Another critical issue is the need for proper training and skill development. The adoption of green practices in libraries requires staff to be knowledgeable about sustainability and eco-friendly operations. In practice, however, most libraries lack the necessary personnel or time to properly train their staff. Additionally, because maintaining sustainable practices is an ongoing process such as monitoring waste disposal and energy efficiency it requires continuous oversight and commitment from library administrations (Weston, 2017).

In summary, while financial constraints, cultural resistance, and the digital divide remain significant challenges, libraries must prioritize these issues to evolve into more inclusive and sustainable institutions. Adequate funding, community involvement, and flexible standards are essential for libraries to continue serving as key community centers that promote environmental protection and social equality.

Conclusion

The term sustainability is a major factor in the establishment of green libraries. To achieve this goal, certain strategies have been mapped out including installation of efficient and renewable energy, water conservation, waste reduction and recycling among others. The study noted that building sustainable libraries in the digital era required a concerted effort which has diversity and inclusion as priority.

In upholding green library practices, libraries have incorporated these practices into library operation starting from the design of the building, to the day-to-day activities of the library.

Several challenges were also identified including the high cost of changing into sustainable infrastructure in the case of already existing libraries. Diversity and inclusion in green libraries entails that it provides resources and services to all the library users irrespective of their physical fitness or appearances, age and sex. Technology has also played important roles in the promotion and sustainability and inclusion in libraries hence changes brought about by technologies immensely help in the sustainability and better services in the libraries.

Recommendations

1. The study reported high cost of implementing green and sustainable libraries, it is therefore recommended that governments and agencies opting to adopt green libraries should make funds available for its installation and sustainability.
2. Managers of green libraries should ensure that all the available information, programs, products and services are equitably available to the marginalized and the underrepresented groups of library users.
3. The libraries in order to promote inclusivity should ensure that their programs both environmental and educational is available to children, young adults, new migrants and other users.

References

- Antonelli, M. (2008). The Green Library Movement: An Overview and Beyond. *Electronic Green Journal*, 1(27).
- Aulisio, G. J. (2013). Green Libraries Are More Than Just Buildings. *Electronic Green Journal*, 1(36).
- Birdi, B., & Hall, H. (2023). Inclusion and access in public libraries: An international perspective. *Library Trends*, 72 (1), 45-61. <https://doi.org/10.1353/lib.2023.0010>
- Bradley, S., Johnson, L., & Tate, J. (2021). Diversity and inclusion in library collections: Strategies for change. *Journal of Library Administration*, 61 (2), 87-101. <https://doi.org/10.1080/01930826.2021.1879473>
- Breeding, M. (2018). The Digital Transformation in Libraries. *Information Today*, 35(6), 28-30.
- Campbell, J., & Gibson, K. (2022). Partnering for inclusion: Community engagement in library services. *Library Management*, 43 (3), 172-185. https://doi.org/10.1108/LM-09-2021_0087
- Chen, Y., & Bowman, M. A. (2022). Navigating cultural resistance to inclusive library services. *Public Library Quarterly*, 41 (4), 341-357. <https://doi.org/10.1080/01616846.2022.2045019>
- Chigwada, J. P. (2023). Digital libraries and their role in sustainable development: A case study in Southern Africa. *Information Development*, 39 (2), 256-269. <https://doi.org/10.1177/02666669221103042>
- Cooke, N. A. (2017). *Information Services to Diverse Populations: Developing Culturally Competent Library Professionals*. Libraries Unlimited.
- Dali, K., & Caidi, N. (2015). Diversity by Design. *Library Journal*, 140(7), 34-37.
- Hicks, D., Wang, L., & Venkataraman, S. (2020). The economic impact of sustainable practices in academic libraries. *College & Research Libraries*, 81 (4), 529-546. <https://doi.org/10.5860/crl.81.4.529>
- Igbinovia, M. O., Osuchukwu, N. P., & Onodugo, I. V. (2022). Digital inclusion and the role of libraries in bridging the digital divide in Sub-Saharan Africa. *Library Review*, 71 (6-7), 317-332. <https://doi.org/10.1108/LR-08-2021-0101>
- Jaeger, P. T., Bertot, J. C., & Subramaniam, M. (2015). Reenvisioning the MLS: Bridging the Librarian/Information Divide. *Library Quarterly*, 85(1), 3-16.
- Jankowska, M. A., & Smith, J. (2021). Sustainable libraries: Green building initiatives in academic libraries. *Journal of Academic Librarianship*, 47 (5), 102368. <https://doi.org/10.1016/j.acalib.2021.102368>
- Jankowska, M. A., & Marcum, J. W. (2010). Sustainability Challenges for Academic Libraries: Planning for the Future. *College & Research Libraries*, 71(2), 160-170.
- Lankes, R. D. (2016). *The New Librarianship Field Guide*. MIT Press.
- Leung, S., & Liu, M. (2021). Diversity and inclusion in digital libraries: Using metadata to improve access. *International Journal of Digital Libraries*, 22 (3), 155-172. <https://doi.org/10.1007/s00799-021-00313-0>
- Malthus, T. R. (1798). *An Essay on the Principle of Population*. J. Johnson.

- McCullough, M., Patterson, A., & Ruiz, S. (2022). Funding green libraries: Challenges and opportunities in sustainable library projects. *Library & Information Science Research*, 44 (1), 101097. <https://doi.org/10.1016/j.lisr.2022.101097>
- Miller, D. (2010). *Green libraries: Sustainable design and operations*. Green Library Press.
- Oladokun, O., Nwokedi, E., & Adebayo, S. (2023). Digital divide and the future of libraries in Africa. *Library Philosophy and Practice* (e-journal). <https://digitalcommons.unl.edu/libphilprac/6879>
- Panzarino, C., & Maguire, M. (2022). Eco-conscious libraries: The role of public libraries in promoting sustainability. *Public Library Quarterly*, 41 (2), 145-159. <https://doi.org/10.1080/01616846.2021.2010002>
- Pressreader Team. (2024, April 1). Green libraries: Going eco-friendly for Earth Day 2024. *Pressreader*. Retrieved September 23, 2024, from <https://blog.pressreader.com/libraries-institutions/green-libraries-going-eco-friendly-for-earth-day-2024>
- Silliman University Library System. (2023, January 18). Transforming Libraries for the Digital Age: Navigating the Challenges. Retrieved September 23, 2024, from <https://www.sulibraryph.com/blog/transforming-libraries-for-the-digitalage/transforming-libraries-for-the-digital-age>
- Subramaniam, M., & Jaeger, P. T. (2011). Enhancing Diversity through Community Engagement. *Library Quarterly*, 81(1), 99-126.
- Weston, L. (2017). Green Practices in Libraries: Overcoming Barriers. *Journal of Library Administration*, 57(2), 145-158.