

***Fundamentals of
Resource Sharing, Library Networks
and e-Resource Consortia***



***Dr. D. D. Lal
Ms. Yogita Talwar
Prof. Manoj Kumar Sinha***



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**Electronic Resource Sharing of Libraries:
A Footprint Toward Green-E Future**

Niranjan Mohapatra

Independent Researcher, Bhubaneswar, Odisha

Email : nmohapatralis@gmail.com

Satyajit Nayak

Technical Assistant

*Knowledge Resource Centre, CSIR- Central Road Research Institute,
New Delhi*

Email : satyajitnayak555@gmail.com

Dillip Kumar Parida

*Senior Library Information Assistant, Indian Institute of Technology,
Bhubaneswar, Odisha*

Email : dillipimnt@gmail.com

Abstract

The term "Green-E" is not new, but introducing the term in libraries may be new. Generally, Green-E indicates green energy, but in the library scenario, the power of 'E' has been changing the future of libraries. Sharing resources in the library is an old idea carried over from traditional libraries to the library services we have today. Evaluating electronic resources has become easier and also helps to make the future greener. The sharing of e-resources reduces duplicate work and geographical barriers for users and libraries. Different benefits of electronic resource sharing have been mentioned and described as a sector, i.e., space, energy, cost, time,

organization, and reliability. In this article, the authors visualized the concept of "Green-E" in the field of libraries and information centers. Through the analysis of electronic resources as a renewable source of energy for libraries, the idea has been explained and supported by showing how electronic resources play an important role as greener energy and help save the earth from global warming and climate change. The future of e-libraries and green libraries may be called the "Green-E Library," and its electronic resources mark the footprint for a green future.

Keywords: *Electronic, E-resource, Resource Sharing, Green-E, Sustainable*

Introduction

In the 21st century, global warming and climate change are recognized as global issues, primarily owing to industrial and other anthropogenic activities that generate greenhouse gas (GHG) emissions. It is imperative to reduce GHG emissions as soon as possible to restore ecological balance (Dada, 2021). Libraries have long served as symbols of sustainability. As part of their mission to pass on knowledge and information from one generation to the next, libraries have worked to promote various human experiences and ways of thinking. Libraries have adopted the library economy as a fundamental functioning element because of their long history as organizations (Connell, 2010). Due to their long-standing traditions, libraries are positioned to support a more recent and urgent appeal for sustainability: ecologically "green" collections.

Computer applications have changed dramatically over the last few decades as computer hardware, and software innovations have revolutionized how information is collected, stored, organised, accessed, retrieved, and utilised. Computers have been incorporated into the library as tools and services for information processing. New modes of scholarly communication are constantly emerging, thanks to the Internet and Web. These enable goods to be delivered to various geographic locations, thereby overcoming the geographic limitations associated with print media (Shenmare, 2018). ICT facilities provide easy access to electronic resources that can be bibliographic guides to possible sources. Cooperation of person librarians, library staff, library users of libraries along with teachers and students from different educational and research institutions and interested people from villages, towns, cities who are dedicated to reducing environmental degradation and trying to green the library are part of the green library movement (Mohapatra, 2020)

Resource Sharing

The term 'Resource Sharing' is simply a combination of two words, 'Resource' and 'Sharing'. Merriam-Webster's Dictionary defines a Resource as "a source of supply or support: an available means". Resource Sharing means distributing available resources among others for everyday use. Library consent refers to libraries sharing their resources, i.e., information resources/documents, human resources/staff, expertise, and infrastructure with others. In other words, when

one library's collections are made available to another library efficiently and effectively, it is known as resource sharing of Libraries. Resource sharing involves the technical capabilities, staff expertise and policies necessary to achieve that objective.

Electronic Resource

E-Resources, or Electronic Resources, are the materials and documents that can be found in digital and electronic formats. Those will only be accessed through electronic devices, i.e., computer desktop/laptop, Mobile, smartphone, Tablet etc. E-resources may be categorized into two major types: Online & Offline. Some Online e-resources may include E-journal (Full text & bibliographic), E-books, online databases, websites; some offline e-resources may include CD-ROMs, diskettes, and Portable computer databases.

Green-E

Generally, Green-E means green energy, which comes from natural sources; however, it is environmentally friendly, also known as clean energy, as these do not release pollutants into the air, and renewable energy comes from sources that are constantly being replenished, such as hydropower, wind power or solar energy. Green-e® has been a program of the non-profit Center for Resource Solutions, San Francisco, CA, since 1997.

The word 'Green-E' sounds like greenly, which means 'slightly green in colour'. For a sustainable world, the contribution of libraries through promoting and sharing electronic resources.

Where e-resource is a part of initiating a greener world, Green-E in the Library perspective refers to Green E-Resources.

Review of Literature

Yuvaraj (2013) mentioned that with the advent of the internet and computer networks, the concept of 'resource sharing' has emerged, and the term has entered library services. Abubaker (2007) described resource sharing activities among libraries and stated that they are about cooperative efforts and ensure that materials not available in a library are obtained or requested from another library through this process. Arua et al. (2020) said that Resource sharing allows libraries and users to access various resources and other services unavailable in libraries. Libraries share resources to reduce costs and improve efficiency. Dada (2021) observed that libraries should look at the need to select green collections to educate librarians and information professionals with toolkits to acquire basic knowledge of green libraries. On the Opportunities and challenges in e-resource sharing, Onyam and Benson (2020) described that libraries are expected to share various information resources to meet the library's users, and one such is e-resources.

Future of Sharing E-Resources

The future is electronic resources; their use will increase as printed materials decrease. Most electronic resources were used in 2020 because of the global COVID-19 pandemic (Mitra, 2020). All users of e-resources have realized the challenges and

outstanding future opportunities available in this sector. Sharing e-resources helps build up an e-library and supports a green library. However, a green library is a contributor to a green-e world. Sharing e-resources will also lead to a green-e future.

Green-E World

The 'Green-E World' is becoming Greeny and going green through the power of 'E'. The evolution of the electronic age has attached human beings to the term 'E' from e-mail to e-vehicle and e-office to e-governance. All official paperwork goes electronically i.e., e-file, e-tender, e-procurement, e-despatch, e-grievance, e-certificate, e-payment etc. The 'E' saves paper and saves trees, a contribution toward a green environment. Secondly, the electronic version of all services or products does not require transportation. Generally, it is accessible from the fingertips. As we know, a significant part of air pollution is sourced from burning diesel, petrol, gas, and coal, mainly used in transportation, i.e. Motorcycle, Car, Bus, Truck, Coal Engine-Train, Aeroplane, Ship etc.

In the Library, different e-documents and e-services are well-known as e-resources, which are paperless and have no transportation work that helps a sustainable and greener world. The people involved as users or promoters of the usage of e-resources are the participants of the green movement. The contribution of libraries toward the green movement is not only through e-resources but also from other sources where there is

the possibility of consuming natural and renewable energy and trying to reduce the sources, which are non-eco-friendly.

Green-E Library

Green-E Library refers to an e-library, which contributes to the green library. If we split the term ‘Green-E library’, it comes with two concepts, i.e., green library and e-library. An E-library is full of electronic resources, either online or offline, i.e., e-books, e-journals, e-database, etc.; Alternatively, a Green library is a library designed to minimise negative impact and maximize positive impact on the environment.

Generally, electronic resources use less space than print resources. Thousands of e-books and e-journals are available through an electronic device and can carry in a bag or pocket, but on the other hand, building a house, bookshelves, electric lights, fans etc., for storing some print books. All these construction of buildings and fractures may cause pollution of the environment and utilize energy which harms the environment. However, the e-resources help to minimize environmental pollution and are part of a green library goal. Secondly, trees/wood are the raw materials for making paper. Hence less use of paper means saving a tree. One tree created around 8,000 pieces of paper. Every piece of paper has been cut down approximately 1/500th of a tree (DeAngelis, 2022). Where e-resource saves many trees, which is a good sign for the environment. However, electronic resources and sharing e-resources are becoming part of the green revolution in libraries. These statements will never be incorrect: "An e-library signs

towards a green library," which may be called a "Green-E Library."

Benefits of E-Resource Sharing (SECTOR)

Electronic resources provide many benefits to the user community, library professionals, and administrators. Some benefits have been categorized as "SECTOR": Space, Energy, Cost, Time, Organization and Reliability.

Space:

The barriers of physical storage space inherent in traditional libraries are not an issue in e-libraries; the e-resources are not limited to one place but are also accessible worldwide. In most cases, the E-resources reduce the procurement of print resources for these space issues. The collections of libraries increased day to day as per the requirements of the users. In the case of most demanded books/documents, the library purchases multiple copies for the same. As more is procured, more space is required in the library building for shelving/storing the print resources, but electronic resources do not require extra space for online documents. In the case of offline e-resources, the memory disk of the electronic device may require more space for more resources, but it will be fixed within the device. Since the development of cloud computing, the cloud space has become the storehouse of electronic resources. Lakhs of e-resources, i.e. e-books, e-journals etc., are available in a single electronic device. E-resource does not require enough space to store, carry and transfer for the library users and

staff/administrator. A memory drive such as a Pendrive, CD drive, HD drive, and SSD drive can archive thousands of e-resources and fit into the user's pocket.

Energy:

From the construction to the operation of a library building, energy, i.e., water, air, and electric power, is required. The use of electric lights, fans, air-conditioners, lift/automatic elevators, etc., is widespread for operating a library building that consumes so much energy. As no building requires to store e-resources, energy is automatically saved. Although electronic devices used for accessing e-resources are operated through electric power, they save much more energy than access to print resources in a library building. After all, the human energy of the library users required to walk into the library also saved in case of accessing the e-resource

Cost:

The price of the e-resources is mostly less than the print resources as it has reduced expenses in printing, publishing, transporting and procurement. Libraries may save money by discontinuing print-independent subscriptions and discounting one-only subscriptions (Parida et al., 2022). Several simultaneous users can access the same networked product at multiple points simultaneously with a single purchase, which reduces the cost of purchasing multiple copies. Along with these, the cost of building library houses, bookshelves, infrastructure energy consumption, human resources,

housekeeping, cleaning service, security services etc., which are required for storing print resources, can be saved if the libraries go through using and sharing e-resources. As the print resources get torn, weak and require binding after many uses, it also requires costs for binding and maintenance work which may not be required for e-resources. Overly, e-resources are more cost-effective for the library than print resources.

Time:

Electronic resources not only save the time of users but also save the time of library staff. E-resources strictly follow the fourth law of the five laws of library science. "Save the time of the user. If the access facility permits the library users to access them from their homes, there is no need to go to the library building; their travel time may be used in the study. Secondly, the searching process and finding the actual document along with relevant resources makes it easier and more time-consuming in the case of electronic resources. Procurement of e-resources also needs significantly less time than print resources. After procurement, physical works, i.e. stamping, pasting, accession numbering etc., need not be required for the e-resources, which saves much time for the library staff.

Along with this, the users can search e-resources them self, followed by the search instructions, FAQs and search tutorials available with the e-resources. In contrast, in the case of print resources, maximum library users need the help of the library staff to achieve their required documents. Such cases like the reservation of a library book for borrowing, which has not been

available for the last few days due to all copies issued to other users. The needy user waits till the book is returned and available in the library; after that, he/she will be able to use it. However, if the same book is available in e-books, he/she need not wait and be able to use it immediately. Here, e-resources also help to save time. The users can access round the clock 24/7 to the library's e-resources.

Organization:

As per the fifth law of the Five Laws of Library Science, “the Library is a growing organism” The library as an institution operates in a constantly changing environment. As a result, the organization must change and adapt new technologies to serve library users better. The library cooperation resource sharing could not be proved successful due to limitations like geographical distance. However, after the development of Information Technology, libraries have changed from standalone to network-based, Document bases to information-based, Physical existent to electronic Libraries (Mohapatra & Vandana, 2018). Electronic resource changes the organizational structure of a Library; the organization becomes worldwide without limit within the walls of a building. The e-resource changes the activities of a physical organization to a virtual organization. E-resources can be shared and accessed by anyone, at any time, from anywhere.

Reliability:

Electronic resources are not only quality matters but also reliability. The term 'Reliability' shows "how quality changes over time" e-resources can maintain the reliability of where a product, system, or service successfully performs its intended function for a specified period or operates without failure in a specific environment. In some cases, e-resources allow interaction between the author/publisher and users. E-resources can be updated more quickly and easily merge with other library services. It also provides value additions, i.e., search ability, supplements, formats etc. which are unavailable in print resources. An e-resource never is mutilated, stolen or lost in the future. Users efficiently manage and reassess it by adding bookmarks and personal notes to a webpage or by downloading and archiving it for future use. It provides the users to read, summarize and cite. Any user can form their own 'bookshelves' on the webpage and manage the e-resources of their particular interest. Overly said, electronic resource provides authoritative, reliable, accurate, and timely access to information.

Conclusion

Electronic resources are environmentally friendly; sharing and using e-resources saves trees and the earth from global warming. The maximum use of e-resources and minimum use of print resources will reduce the number of printing products whose primary source is paper. As less paper is used, fewer trees will be cut for the raw material of paper. "Save paper means save a tree" and "Save tree means save the

environment”; overall, e-resources play an excellent role in saving the environment. For a sustainable and green environment, it is necessary to reduce paper, energy, and transport use; which are possible by using e-resources. Both the library staff and the library users should be aware of the benefits of e-resources and know how e-resource is a part of the green revolution in libraries. Sharing e-resources by libraries will mark the footprint toward a sustainable environment and green-E future.

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