

## Research Article

# Archival Libraries and Digital Archiving: A Systematic Review

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## I N F O

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## A B S T R A C T

The present study explored the literature on archives, archival material including digital archiving to review and identify the tenants of researches going in the field of archiving. It also tries to identify the problems facing conservators and archivists in safeguarding the archival material and the intrusion of digital objects including the metadata engineering for archival resources and web archiving and digital archival preservation. A systematic review was conducted for about 40 articles by studying the contents of the related literature gathered from various sources to explore and identify the type of researches conducted on archives, archival libraries & digital archives and preservation, conversation of archival material. We divided the studies into various themes and topics and reviewed them one by one on various facets of archival literature. The study found that archives are mostly holding important and rare documents for their long-term preservation and conservation for future generations and the trend in adopting the digital technologies for taking care of the useful documents in archives is also growing. The study also found that the lack of awareness and the specific training to the library staff is imperative for excelling in the field of archives and archival preservation and conservation in libraries.

**Keywords:** Archival Material, Archives, National Archives of India, Metadata For Archival Material, Digital Archiving and Web Archiving, Preservation and Conservation of Archives

## Introduction

Archives are holdings of collection of documents and records that contain historical information for long-term use and it is being said that 'all records are not archives, all archives are records'.<sup>1</sup> The stuff conserved in archive records has an ongoing value for upcoming reference, are composed of rare and useful documents of specific nature. The archival libraries contain textual material, specific records on computers, software files and data sets and fragmented scrapbooks, etc.<sup>2</sup> Along with a variety

of other artefacts, manuscripts, which are old, unopened lettering from antique kings, plates of copper, stone inscriptions, or other objects, are commonly available in archives. Engenio Casanova, said that archives are, "the orderly accumulation of documents which were created in the course of its activity by an institution or an individual and which are preserved for the accomplishment of its political, legal, or cultural purposes by such an institution or individual."<sup>1</sup> Archives are primary documents that have been obviously and certainly formed by the result of routine

lawful, commercial, social, or administrative operations by professional historians and archivists.<sup>3</sup> The Archives are in diverse forms like the records, which are shaped or established by a human being or organization in a repository where we can access it.<sup>4</sup> On the other hand, Archival libraries have a distinct nature as compared to public libraries and others. In most cases, they contain a very valuable collection of historical books, they are not part of reference libraries. They generally build a separate group within the fonds of archival libraries. Archives are mostly used by researchers or by other consultants.<sup>5</sup> However, libraries and archives, are similar as that of human knowledge and experience which help to understand, analyze, classify, enjoy the visible and unseen world built upon the written and documentary heritage that they protect. By preserving our shared past, libraries and archives are preserving the collective memory for coming generations, having access to the past enables us to comprehend the present, place ourselves in it, direct the future.<sup>6</sup> In archives, the professionals who preserve the records and old documents of any government, organization, or institution, are known as archivists.<sup>7</sup> They make it possible to maintain records accessible to society in diverse research-oriented programmes and activities. Their technical skills and awareness about the new preservation techniques are very important for them and hence the study explored the possibilities of conducting special programmes for orienting their skills on the basis of review of existing literature. It also tries to identify the problems facing conservators and archivists in safeguarding the archival material and the intrusion of digital objects including the metadata engineering for archival resources and web archiving and digital archival preservation. A systematic review was conducted by studying the contents of the related literature gathered from various sources to explore and identify the type of researches conducted on archives, archival libraries & digital archives and preservation, conversation of archival material.

### Statement of the Problem

We have lot of archival libraries at the national and international level which have archival material not only in physical form but also in digital form. In this study, we have discussed about the long-term preservation, conservation and usage of archival libraries and digital archives. Going through the present researches done on the topic, with the advancement of science and technology, the main challenge faced by the archives is the preservation and conservation of records and data. The main lacuna with archivists is the lack of awareness and training of the usage of modern tools and available avenues for the preservation and conservation of archival records. As the researchers and students prefer digital archives, it is necessary to bring into reality the scope of this field with them and determine the existing trend of researches going on in the field of archiving and digital preservation.

### Aim and Objectives of the Study

The present study is aimed at knowing about archives, archival libraries, digital archives in a systematic way. It deals with the preservation and conservation of archival material in libraries present both in physical as well as in digital form to make it available for long-term use. The study is undertaken by the following laid down objectives.

- To review the literature on archives and archival material
- To make a thematic understanding of archival libraries and digital archive collections
- To study the issues facing archives and archivists
- To study the conservation and preservation methods of Archives
- To explore and understand the new avenues and scope of the usage of archival data

### Scope and Limitation

The goal of this research is to learn about the holdings of archives, archival libraries and digital archives in this age of advanced technology in a systematic manner. There are various archives nationally as well as internationally that hold archival material. So, it was not possible to cover all the archives. In this study, we mainly use various online databases to get relevant sources related to archival libraries and digital archives to conduct a systematic review study.

### Research Methodology

A content analysis approach of 40 research articles was used to conduct the study using various databases like Google Scholar, Emerald insight, Scopus, Elsevier, Web of Science, Science direct, etc., to get relevant resources related to this topic. A systematic review was conducted by reviewing the related literature from various sources for studying and exploring on Archives, Archival Libraries & Digital archives and preservation, conversation of archival material by archivists.

### Literature Review

The literature related to archives, archival libraries and digital archiving has been reviewed in this study. Some of the relevant studies and articles were found from various sources and databases like Emerald insight, Scopus, Google Scholar, Web of Science, Science direct, Elsevier consisting of relevant articles, papers, reports, books etc. which were related to this research. Featherstone (8) conducted a study which deals with archives, the mean and it's holding for future reference, the study reveals with the classifying and legitimating knowledge to users. With the advancement of new tools and techniques, there is an increasing and unstable global repository of recordable archive materials, which have been hugely impacted by online digital content and, more importantly, the internet. Gupta and Khullar<sup>9</sup>

conducted a study on National Archives of India with aim of this study NAI its startup by the studying history, NAI setting up, Indian historical records commission, functions resources and library & its services. The study revealed that lots of services available in NAI like library, Research, reference, Reprographic conservation Laboratory, school of archival studies, publications etc. Dascher<sup>10</sup> conducted a study on data bases and statistical systems with the discussion about archive's history from ancient and begin from 1794. The study analyzed broad organization of archives by publicly, privately and material from charters record to electronic documents, talk about facing problems archivists in archives. Cunningham<sup>11</sup> conducted a study on "Archives" with the aim understand the misleadingly unproblematic conservative static view of archives as being merely dusty old stuff. This article gives an overview and compared examination of the many forms and responsibilities of archive institutions across the world at different times and locations. Bradsher & Evans<sup>12</sup> conducted a study was about the development of an archivist and his/her journey. It describes awareness about the complexities involved in archives administration and the knowledge skills which archivists must possess in order to fulfill their ultimate goal of preserving archives and making them available. Yakei<sup>13</sup> conducted a study on archival representation discussed organizational and descriptive schema, include tools and systems which have been analyzed in the overall process of archival representation. The study revealed that the archival representation is more useful for archival libraries in terms of re ordering interpreting creating files and the overall management of archives and their files for the represent purposes. Lidman<sup>14</sup> conducted a study on archives, argue that archives unique records and focus on a high level of expertise on the part of personnel the study reveals that archivists to complete the evaluation of the exponential expansion of analogue and digital records. Databases with personal records demand high levels of juridical competence among the archive staff and archive legislation is as a consequence getting more and more advanced. Schmidt<sup>15</sup> conducted a study to exposition explaining the roles and processes of archives for both first-time archival consumers and researchers who have recently performed work in archiving. Prajapati<sup>16</sup> conducted a study that explains about the particles of dust accumulate on papers in the National Archives of India (NAI). The report focuses on the chemical makeup of particles of dust that contain gathered in NAI archives or repositories. Huang et al<sup>17</sup> conducted a study in field of personal archiving to discuss the archival knowledge and goal of study to outline a theoretical framework that will demonstrate how archivists use their archival knowledge to their personal archiving. Madden & Seifi<sup>18</sup> conducted a study basic overview and historical background for digitalization and multidisciplinary research

utilizing digital surrogates of historical Persian manuscripts in the National Library and Archives of Iran, international universities, libraries, archives, museums, govt. agencies etc. to improve Iranian, Persian, Islamic cultural heritage study. To explores the merits and challenges of LIS literature in conceptual contexts. Sye<sup>19</sup> conducted a study usage of primary sources among the students, deals with history students. Due to the COVID-19 epidemic, scholars have restricted physical access to archives for historical research during the 2020–2021. The study reveals that students will continue to use digital primary materials in a post-pandemic world. Duranti<sup>20</sup> conducted a study which explores the importance of archives in the entire of its manifestations, value as sources for a wide range of useful purposes, value as a way for businesses to make money. Examining such values, several authors provide an explanation of how archives were amassed and conserved in their respective nations, as well as how these processes affected the value and importance of their archives nowadays. Shein, et.al<sup>21</sup> conducted a study about using ArchivesSpace in UNLV, which deals with the University (UNLV) Libraries are in their third year of using the open-source ArchivesSpace appliance for managing archival collection. it highlights how adopting an open-source programme has made it possible for cross-departmental collaboration. Koscieljew<sup>22</sup> conducted a study on specifically, by thematically analyzing the announcement prepared by national archives, which are debatably the leading archival institutions in their particular countries to shed light on some of the initial responses to the crisis made by the international archival sector and continuing (limited) services and providing remote access. Concern for preserving the health, security of their communities' and welfare is another recurring subject in announcements. Ketelaar<sup>23</sup> conducted a study which discusses the Meanings and identities, people and groups develop archives through repeated activations that help them establish their identities. It reveals that the archives remain accessible well into the future. Additionally, due to technologies of migration and reconstruction archives which are digitally constantly in a state of creation. Huvila<sup>24</sup> conducted a study by expert's responses to a web survey which aims to look into ALM specialists view the common function of archives, libraries, museums (ALMs) in modern society. The findings demonstrate the need to identify and discuss the role that ALMs will play in society going forwards, with a strong focus on their theoretical underpinnings. Manoff<sup>25</sup> conducted a study which aims to discuss that the last ten years have seen the emergence of innovative and exciting theoretical approaches to the archive across a wide range of fields. The study follows, explores and summarizes archive conservation. Jimerson<sup>26</sup> conducted a study and discussed about Archives for all and its importance in a society and all members of society should profit from archivists' use of their authority in

selecting which Documents will be preserved for future generations and for researchers to use in interpreting this content. It reveals that it is crucial to make this distinction between neutrality and objectivity. Without compromising the ethical, professional principles of fairness, honesty, objectivity, transparency, advocacy and activism can address social challenges. Hannestad<sup>27</sup> conducted a study which discussed about future library applications that perform standard tasks could gradually take on a few of the responsibilities and traits of archives and museums. The author of this article discusses core archive theories and concepts as well as how they have changed recently including fundamental archive operations of arrangement appraisal, reference, publication, description and preservation. Saha<sup>28</sup> conducted a study on digital archiving and preservation to present scenario in which he covers a major portion of the enormous amounts of information created around the world is digital. The current situation, framework, forms, planning, systems and initiatives produced around the world are all covered in this paper. Mulla et al.<sup>29</sup> conducted a study which discuss the Digital archives such as libraries are undergoing a major change in all over the world and forced to alter as a result of societal demands. The administration of libraries' physical and financial resources can be greatly enhanced by the growing technology of Digital Libraries (DL), a byproduct of the information revolution. This paper shows how a library went from traditional print to automate to digital. Ipsita & Maharana<sup>30</sup> conducted a study which discussed about "Latest Trends of Open Access Self-Archiving a Study of E-LIS Repository: with specific Reference to Asian Countries. Libraries and information centers comprise the main benefactors of the latest model of information access and distribution, while people from many walks of life are undoubtedly much benefited by the OA ideology. Material freely accessible to all readers online is the major goal of many OA initiatives. Bansode<sup>31</sup> conducted a study on "creation of Digital Library of Manuscripts at Shivaji University, India." to explain the digitalization of rare resources/ archival material in a university in India and efforts made by Shivaji University Library to conserve rare items. Because manuscripts are difficult to find, digitalization is the best option for their preservation and accessibility. It will benefit all of mankind, not only librarians and other library professionals. Matlala<sup>32</sup> conducted a study at the University of KwaZulu-Natal Archives reveals that long-term preservation of digital documents requires human and financial resources, technology training, preservation tools for staff. Sinn<sup>33</sup> conducted a study deals the use of digital document collections in historical research, examining their frequency, types, purposes. The study also examined

the current status of digital archival collections in historical research. Wu & Heok<sup>34</sup> conducted a study on web archiving initiatives, highlighting the importance of archival principles and the preservation of relative information in collected works. The study suggests that existing and future initiatives can combine Web Sphere investigation to create a true Digital Archives, providing a wealthier source for future research studies. Costa et al.<sup>35</sup> studied web archiving, focusing on the preservation of unique and historically significant information. Surveys revealed patterns and trends in web archives, allowing for strategic planning, resource allocation, technology development. The study highlights the increasing efforts of web archiving individuals to preserve digital material. Maxwell<sup>36</sup> study on digital archives and history research focuses on design choices that enhance or hinder collections' usability. The article offers advice for digital library management, revealing the consumer's thoughts on digital information and providing recommendations for improvement. Becker & Nogue<sup>37</sup> conducted a study of 110 writers' digital archiving practices revealed that most authors disregard digital archival issues, resulting in carelessly managed, dispersed, poorly labeled files. 80% of them would welcome digital preservation training. Professionals in digital curation should contact writers through blogs, Twitter feeds, literature to provide advice on archiving methods to prevent further losses. Giannakopoulos & Koumantakis<sup>38</sup> conducted a study on university students in Greece aimed to understand their perceptions of archives and their understanding of archive science characteristics. The results showed that Greek society views archives differently, with everyone agreeing that archives are a reliable source of knowledge. The study supports the idea that archives are a valuable resource for understanding and preserving cultural heritage. Vassilakaki & Moniarou-Papaconstantinou<sup>39</sup> conducted a study aims to explore the overlaps between archivists and librarians and identify their roles in different archival settings. It found that while new positions like educator, digital archivist, dual archivist/librarian emerged, traditional roles like record-keeper and collection manager remained important. These roles were influenced by technological advancements, educational and social changes, the need for collaboration and communication among archivists, librarians, researchers. Szekely<sup>40</sup> conducted a study found that archives are not directly threatened by the rapid growth of information and communication technologies in the digital age. This is due to institutional traditions, responsibility, the importance of maintaining context, physical copies, social, legal, administrative requirements. Researchers and bureaucrats are no longer the primary audiences for archives.

Table I. Systematic Review of the selected articles

S. No.	Author(s) Name	Aim & objectives of the research	Research findings	Important take away points about the theme of the study
1.	Feather stone (2006)	The purpose of this paper is to know mean of archive and its holding for long-term use.	The study reveals that Classifying and legitimating knowledge provides unique challenges in an increasing and unstable globalizing repository through digital recording and storage technology.	Archives hold information and memories for future reference, providing a globalizing repository of information and memories. They are increasing and unstable, with recordable material providing classifying and legitimating knowledge.
2.	Gupta and Khullar (1984)	The aim of this study to know about NAI, its startup by the studying history, NAI setting up, functions resources and library & its services.	This study reveals NAI library and the services provided to the users & patrons. Here, lots of services available in NAI.	Startup and establishment of National Archives of India, Indian historical records commission, library resources.
3.	Dascher (2015)	This study on data bases and statistical systems in which discussed about archive's history from ancient to present day.	The overall study explore that appraisal is serious problem in present days for archivists.	Studying archive databases, history, organization, appraisal is crucial for archivists, both publicly and privately.
4.	Cunningham (2005)	The aim of this article to look at this interesting terrain – to dig base the misleadingly trouble-free conservative static view of archives as being merely dusty old stuff.	This article gives an overview and compared examination of the many forms and responsibilities of archive institutions across the world at different times and locations.	Archive history in Australia, conservative static view, dusty old stuff, institutions' responsibilities from Australian context.
5.	Bradsher & Evans (1988)	This paper tells us that the development of an archivist which never ends, neither do the work nor rewards.	It outlines and reveals that the knowledge and skills that archivists must possess and exercise in order to manage effectively their archives and institutions.	Archivist development involves understanding archives' complexity, preserving them, enhancing knowledge through education, training, professional development.

6.	Yakel (2003)	Conducted a study on archival representation in which organizational and descriptive schema, tools and systems have been analyzed in the overall process of archival representation.	The study revealed that the archival representation is more useful for archival libraries in terms of re-ordering interpreting creating files and the overall management of archives and their files for the represent purposes.	Archival representation involves organizing and analyzing archives using specific tools and systems. Techniques involve representing creators, archivists, systems, re-ordering files, managing archives effectively.
7.	Lidman (2012)	Paper deals with Archive holdings, in contrast to information in libraries, consist of unique records.	One of the most crucial duties for archivists to complete nowadays is the evaluation of the exponential expansion of analogue and digital records.	Archival libraries showcase unique records, organic progression, archivist duties, evaluating analogue and digital expansion. High skills and advanced legislation are required for staff advancement.
8.	Morris (2009)	The purpose of this paper is to know the problem facing Archives and archivists in the Archival libraries whereas many librarians have worked with collections of Archives at some points in their careers.	Most archives are thus hidden from researchers. By all these aspects there are listed ten steps in this article would then make it possible for library staff to continue focusing with documents and proceed meeting the demands of their clients.	Archives face challenges in education and instruction, with archives often hidden from researchers. Preparing meetings and storing rare historical documents can reduce operating costs, save space, save staff time.
9.	Schmidt (2011)	The aim of this paper to exposition explaining the roles and processes of archives for both first-time archival consumers and researchers, who have recently performed work in archiving.	This guide should assist in achieving your study objectives anywhere at archival repository by covering and an archive work, somewhere to locate acceptable records for your study.	Overview of archives' roles, processes, services for first-time users, researchers, acquiring historical resources.
10.	Prajapati (2003)	The report focuses on the chemical makeup of particles of dust that contain gathered in NAI archives or repositories.	The overall dust buildup in the NAI repositories ranged from 6.07 to 7.14mg/m (2) year in various stack locations. Analyses of the dust accumulation rate and recommendations to slow the accumulation have also been covered	Dust particles in NAI archives accumulate in tropical and subtropical climates, with chemical makeup focusing on heavy and light particles, with a range of 6.07-7.14mg/m per year.
11	Huang et al. (2020)	This paper's goal is to outline a theoretical framework that will demonstrate how archivists use their archival knowledge.	The application of archival knowledge by archivists in the area of PA behavior is influenced by three interactive factors: awareness, knowledge, action. The study emphasized the necessity of raising public archive literacy.	Personal archiving involves understanding archival knowledge, applying it in a theoretical framework, utilizing it to create awareness and action in PA.

12.	Madden & Seifi (2011)	Presented a basic overview and historical background for digitalization and multidisciplinary research utilizing digital surrogates of historical Persian manuscripts in the National Library and Archives of Iran and other institutions.	The digitalization of manuscripts reveals contemporary parallels to the interdisciplinary nature of sciences and ancient Persian arts as well as the goal of digitalization as suitable to a historical range of and traditional Islamic cultural heritage and Persian written literacy.	It explores digitalization and multidisciplinary research using Persian manuscripts in universities, libraries, archives, museums, government agencies. It discusses the merits and challenges of LIS literature, highlights efforts in Islamic heritage, investigates the improvement of Iranian, Persian, Islamic cultural heritage in archives.
13.	Sye (2022)	Due to the COVID-19 epidemic, scholars have restricted physical access to archives for historical research during the 2020–2021 academic years.	The Study reveals that the students will continue to use digital primary materials in a post-pandemic world. Archivists and librarians can utilize this information to progress, improve their own methods.	COVID-19 has restricted physical access to archives, leading to increased usage and dependence on primary source documents. Digitally preserved archives are restricted to personal access, digital primary materials continue to be used post-pandemic.
14.	Duranti (2020)	This study explores the importance of archives in the entire of its manifestations, including value as sources for a wide range of useful purposes and, most intriguingly, value as a way for businesses to make money.	In the course of examining such values, several authors provide an explanation of how archives were amassed and conserved in their respective nations, as well as how these processes affected the value and importance of their archives nowadays.	Archives hold significant importance in various settings, including Australia, Malawi, UK, India, Hong Kong, Japan, highlighting their value and useful purposes.
15.	Shein et al (2017)	Study in which discussed that the University of Nevada, Las Vegas (UNLV) Libraries are in their third year of using the open-source ArchivesSpace appliance for managing archival collection.	Revealing all of Special Collections' archival materials for its community of researchers, it highlights how adopting an open-source programme has made it possible for cross-departmental collaboration.	UNLV Libraries utilize Open-source ArchivesSpace appliance for managing archival collection, expanding features, providing community researchers with archive materials.
16.	Kosciejew (2021)	This paper aims to shed light on some of the initial responses to the crisis made by the international archival sector at its inception.	The entire statements share a common theme: they all talk about closing down physical sites and spaces while nevertheless continuing (limited) services and providing remote access. Concern for preserving the health, security of their communities' and welfare is another recurring subject in announcements	Analyzing national archives' COVID-19 announcements, examining international archival sector crises, understanding Australian Library, Archives of Canada positions, comparing public-facing announcements in Canada and New Zealand.

17.	Ketelaar (2012)	The study aims to know the meaning and identities. People and groups develop archives through repeated activations that help them establish their identities.	As a result, archives remain accessible well into the future. Additionally, due to technologies of migration and reconstruction archives which are digitally constantly in a state of creation.	Archives shape meaning and identities through repeated activations, involving stakeholders and remaining accessible in the future.
18.	Huvila (2014)	This paper aim to look into ALM specialists views the common function of archives, libraries, museums (ALMs) in modern society. Just a small amount of older empirical study exists on the subject.	The study demonstrates that the respondents' opinions best represent varying and incompatible perspectives on the function of institutions. The findings demonstrate the need to identify and discuss the role that ALMs.	ALM specialists play a common function in modern society, with respondents' opinions representing varying perspectives. Discussing their roles and fit into modern society.
19.	Manoff (2004)	This paper aim to discuss that the last ten years have seen the emergence of innovative and exciting theoretical approaches to the archive across a wide range of fields.	There is a convergence of research interests among academics, archivists, librarians. The essay that follows explores and summarizes this archive conservation.	Emerging innovative archive approaches across various fields, influenced by humanists and social scientists, influencing academics, archivists, librarians, focusing on purpose and future of historical and scholarly records.
20.	Jimerson (2008)	The aim of this paper is that all members of society should profit from archivists' use of their authority in selecting which documents will be preserved for future generations and for researchers.	Without compromising the ethical, professional principles of fairness, honesty, objectivity, transparency, advocacy and activism can address social challenges.	Archivists play a crucial role in preserving archives for future generations, promoting social justice, diversity, open government neutrality, while also fostering public sphere participation and social conscience.
21.	Jaswal (2016)	The paper provides a thorough argument of the digitization process, its problems, difficulties, and limitations by highlighting in Pakistan.	The article provides practical advice and numerous provocative thoughts for local librarians to save the deteriorating archives and rare items stored in their libraries through collaborative collective and digitization initiatives	Archive digitization library in Pakistan faces challenges, including political, economic, environmental, human threats, as well as operational and practical challenges. Digitization offers practical tactics and obstacles.
22.	Hannestad (1991)	Discussed about future library applications that perform standard tasks could gradually take on a few of the responsibilities and traits of archives and museums.	The article provides a clear overview of archival operations, which serves as both a foundation for comprehending the differences between existing archival and library practices and a source of information about potential role and function convergence.	Future library applications in archives and museums involve performing standard tasks, understanding core archive theories, implementing automation tools like SPINDEX, NARS5, NARSA1, MARC PHOTO, AMC, CTRACK, DIARY.



23.	Skinner (2014)	This paper aims to explore existing metadata schemas, detail current practices, ideas, models, identify theoretical frameworks that can be used to develop metadata schemas in this situation.	The paper gives recommendations for future study on metadata in archives and cultural heritage institutions. It also examines best practices, finds gaps in the literature, investigates best practices.	Explore metadata in archives and museums, explore existing schemas, models, theoretical frameworks, conduct surveys, identify gaps and best practices.
24.	Chen (2010)	The purpose of the study is to observe the benefits and traits of via using digital archives to assist PBL and to provide advice on how to use them to support e-learning.	When using PBL process supported by digital archival assets, experimental group learners performed better academically and reported higher levels of fulfillment than learners in the control groups who used search engine resources.	Taiwan Libraries' History Digital Library utilizes Google search engine for learning outcomes and student satisfaction, while problem-based learning (PBL) benefits from digital archives. Digital resources enhance presentation and learner fulfillment during PBL processes, with digital archival assets outperforming search engine resources.
25.	Parrish (2021)	The purpose of this study was to offer a quantitative evaluation of Mississippi's public, 4-year universities' online archival collections that have been digitally preserved.	The 492 collections from these institutions that found to exist at least somewhat digitized made up just 14% of the entire collections identified online and probably made up a substantially lesser percentage of all the contents in the universities' archival holdings.	Mississippi's public universities have digitalized archival collections, preserved online, available through the Mississippi Digital Library. These institutions hold 14% of the university's entire collections.
26	Saha (2006)	Aim of this study to present a scenario in which he covers a major portion of the enormous amounts of information created around the world is digital.	Its reveals with Digital archiving and preservation and its challenges to get spread information in the world. The current situation, framework, forms, planning, and systems and initiatives produced around the world are all covered in this paper.	Digital archiving and preservation face increasing challenges due to the digital nature of information and evolving technologies, covering the entire life cycle of vast amounts of information.
27	Mulla et al (2005)	The aims of this paper to know about Digital archives such as libraries are undergoing a major change in all over the world. Libraries are being forced to alter as a result of societal demands.	This paper shows how a library went from traditional print to automate to digital. It also outlines a few of the problems that arise during this process. The DL eventually becomes a reality for anyone, anytime, wherever when it is combined with digital technology.	Digital archives are changing globally, impacting libraries' societal demands, physical and financial resources, enhancing technology. Librarians, technologists, managers are aware of the benefits of digital libraries.

28.	Ipsita& Maharana (2020)	The study aim to making the record scholarly production freely accessible to all readers online is the major goal of many OA initiatives.	Asia as a valuable contributor to the E-LIS library. According to the survey, with a total of 658 submissions, India ranks first among the 42 Asian nations in terms of contributions to the repository.	Study on OA self-archiving in Asian countries' E-LIS repository, discussing publishing industry, scientific community, LIS benefits, highlighting freely accessible scholarship production and Asia's valuable contribution to the library.
29.	Bansode (2008)	This paper aims to explain the digitalization of rare resources/ archival material in a university in India. The digitalization efforts made by Shivaji University Library to conserve rare items are highlighted in this study	The study concludes that digitalization is the answer to the problem of preserving and providing access to the rare collection. It reveals that the digitization is a difficult and rewarding work, but it must be done. It will benefit all of mankind, not only librarians and other library professionals.	Digitalization of rare resources, conservation at Shivaji University Library, estimating archives expenses, providing access to rare collections.
30.	Matlala (2019)	The study aims to discuss about the methods utilized to preserve records digitally at the "University of KwaZulu-Natal Archives and explains the various courses of action in university archives.	It is advised that these challenges be resolved by putting in place an ICT infrastructure and developing policies and procedures to assist assure the long-term preservation of digital documents	The University of KwaZulu-Natal Archives utilizes digital records preservation to preserve various collections. The initiative involves addressing human and financial resources, training staff in technology, developing policies and procedures to ensure archival materials' safety.
31.	Sinn (2012)	This study surveyed research articles in the field of history to learn how frequently and widely digital collections were used current status of digital archival collections among other resources is in historical research.	The analysis used ten years' worth of citations and data from the American Historical Review, which focused on cutting-edge archives on reliable research. The analysis highlighted the types, uses, and limitations of digital archives in real research.	Digital collections are used regularly and broadly for reliable research, with American Historical Review focusing on types, uses, limitations of digital archives.
32.	Wu &Heok (2006)	This study examines two national web archiving initiatives, makes the case for the importance of archival principles, demonstrates, relative information can be preserved in a collected works.	Provide a outline within which existing and future web archives initiatives can combine Web Sphere investigation to change their collection into a true Digital Archives and develop into a wealthier source for future research studies.	Digital archives encompass more than just referenced objects; national web archiving initiatives preserve relative information on Tsunami Online. Web Sphere analysis and future initiatives in web archives research.

33.	Costa et al (2017)	The purpose of this paper is to study the development and cooperation of web archiving initiatives is hampered by the absence of information regarding their global state.	Indicate that the number of efforts, nations hosting these initiatives, volumes of data, preserved contents have all increased significantly during the past few years. While this shows that the web archiving group of people is putting more attempts into preserving digital material.	Web archiving preserves information from printed sources, but lacks global information. Trends and patterns highlight potential and challenges, offering direction for creating superior technologies and preserving digital material.
34.	Maxwell (2010)	This paper's goal is to analyze digital libraries' goals and methods from a historical viewpoint. This study examines numerous digital archives both quantitatively and qualitatively emphasizing design choices that either enhance or hinder the usability of the collections.	This paper offers advice to digital library management. It offers library scientists the frank thoughts of a voracious consumer of digital information, including a number of useful recommendations, explains the thinking behind those recommendations.	Analyze historical digital libraries, emphasizing design, usability, preservation, preservation, management using Google Books as a benchmark and digital library management.
35.	Becker & Nogue (2012)	This research aims to show that most authors disregard digital archival issues, as a result, their digital archives are made up of shoddily managed, widely dispersed, haphazardly labelled files	It shows that writers are not solely to blame for their negligence because they create archival practices on their own, with little to no assistance from information specialists, because 80% of them say they would welcome training in digital preservation.	Personal digital archiving practices, digital issues, poorly managed files are common issues faced by archives. Archivists strive for straightforward arrangements to prevent further losses.
36.	Giannakopoulos & Koumantakis (2014)	Aim to study on a group of university students in Greece, including those studying archival science and library) with the goal of mapping and elucidating the students' perceptions of archives and their comprehension of the characteristics of archive science.	The results support how Greek society views archives. Despite the fact that the students who made up the sample for this study don't seem to have a common definition of the archive, it is obvious from the questionnaires that everyone agrees that the archive is a reliable source of knowledge.	Explore students' perceptions of archives, understanding their characteristics, attitudes, potential for archival research, their common definitions of archives as reliable knowledge sources.
37.	Kuzma & Moscicka (2018)	Its objectives were to identify the variables impacting the usefulness of access to historic maps and to assess whether Polish libraries offer resources in a way that gives patrons the highest chance of discovering the materials required for their study.	The study's findings showed that one-third of the examined libraries merited a favorable assessment. The Jagiellonian Digital Library and the Warsaw University. Digital Library both won top marks for their descriptions of archival documents.	Historical maps in online archives, identifying usefulness variables in Polish libraries, providing access to university materials, developing evaluation criteria for data-driven archival records.

38.	Winton & Tang (2022)	The study aim of assessing existing practices and issues related archival access controls within the field, Confidentiality Steering Committee and the Society of American Archivists.	Results of the survey show how important these choices are. To aid archivists in making these complex judgments with greater assurance, the authors advise the creation of more comprehensive profession-wide advice and decision-making tools.	Archival access issues and guidelines are discussed by the Steering Committee and the Society of American Archivists. They address collection management, tracking expired limitations, managing unique personal circumstances, legal ambiguities, emotional minefields.
39.	Vassilakaki & Moniarou-Papaconstantinou (2017)	The purpose of this study/paper is to demonstrate any overlaps between the activities of archivists and librarians as well as to identify the role that archivists assume in varying archival scenery through a thorough review.	It reveals that while new positions, such as archivist as educator, digital archivist, dual archivist/librarian, beginning to take hold, the conventional ones of record-keeper and collection manager were remained important.	Explore overlaps between archivists and librarians' activities, highlighting their roles in varying archival settings. Explore peer-reviewed literature, archivist roles as educator, digital archivist, record-keeper/collection manager, emphasize collaboration and communication in archival libraries.
40.	Dougherty et al (2010)	It raises the bar for the depth and use of web archiving techniques and technologies. This is accomplished by going beyond the condition of web archives today and the purposes for which they are used.	It shows that the web archive community and its users face a variety of difficulties. However, these difficulties also present funding organizations with chances to encourage a much extra forceful and ambitious programme of gathering and using web (and more generally, Internet) content	Web archiving utilizes techniques and technologies to store and share web resources. Researchers and users engage in small archives, improving tools and resources quality. Challenges include funding organizations and internet access.

## Systematic Review

The different aspects of the articles including the name of the author, aims and objectives, implications, research findings and important points have been systematically reviewed and discussed below in the Table 1:

## Discussion and Major Findings of the study

The findings of the present study are based on archives, archival libraries, digital archives and the contents of the 40 studies have been analyzed and the following major points/findings have been derived:

- Archives are collections of primary sources of unique and unpublished records that were created over the course of a person's or an organization's existence and are preserved to illustrate the role played by that person or institution
- Archives are documents that have clearly and unmistakably been formed as a result of professional historians and archivists routine legal, commercial, social, or administrative operations and archives are essentially all records, but all records are not archives
- Archival libraries house archival material, the majority of which is related to manuscripts, preserving existing collections that will need to be preserved for future use. Some of the researchers said archives are basically a collection of materials, especially historical records, which have been preserved and conserved for future generations
- Regarding the nature of archives, many humanists and scientists discussed the convergence of research interests among academics, archivists, librarians that is motivated by a concern for the purpose and future of the historical and scholarly record
- In India, we have National Archives in India (NAI) which provides lots of services like library, Research and reference, reference media, Reprographic conservation Laboratory, school of archival studies, publications and many other
- Some of the researchers talk about the problem in between Archives and archivists in the archives libraries whereas many librarians have worked with collections of Archives at some points in their careers and explore appraisal is serious problem in present days for archivists by the changing and advancement of technology
- For archival libraries, we have archival representation that is more useful in terms of re-ordering interpreting creating files and the overall management of archives and their files for the represent purposes
- Regarding the archival material, researchers viewed that the archives as being merely dusty old stuff that might first meet the eye but some of the researchers said that archives are thus hidden from users

- Regarding the metadata in relation to archives and museums, some of the researchers recommended for future study on metadata in archives and cultural heritage institutions. It also examines best practices, finds gaps in the literature, investigates best practices
- Regarding the archival science and library many of users from university of Greece agrees that the archive is a reliable source of knowledge
- After analyzing survey studies on archival libraries and digital libraries mostly respondents prefer digital archive collections. We have some early applications to archives of automation (such as SPINDEX, NARSS, NARSA1, MARC PHOTO, AMC, CTRACK, present and DIARY). However, students will continue to use digital primary materials in a post-pandemic world
- On the basis of personal archiving, researchers found four main kinds of PA-related work are preservation documentation, appraisal and arrangement
- After a comparative thematic analysis by some national archives, users respond by focusing on closing down physical sites and spaces while nevertheless continuing (limited) services and providing remote access
- Digital archives are made up of carelessly managed, widely dispersed, haphazardly labeled files. However, digitalization is the answer to the problem of preserving and providing access to rare collection in archives
- Regarding the digital archival issues, professionals stated that archivists actively approach writers to provide advice on the finest and most straightforward ways to arrange and archive their data in order to prevent further losses. So, when new positions occur like archivist as educator, digital archivist, dual archivist/librarian, beginning to take hold, the conventional ones of record-keeper and collection manager
- Regarding the development of web archiving. Researcher indicate number of efforts, nations hosting these initiatives, volumes of data and shows that web archiving group of people is putting more attempts into preserving digital material by trends and patterns
- After analyzing the issues related to funding bodies, many of archivists, web archivists and web scientists identified that funding could help by improving the quality of tools and techniques for scholars to utilize web archive resources

## Conclusion

In this study, we discussed archives, archival libraries, which hold unpublished material that are preserved and conserved for future generations, mainly for research purposes. We found that archives are held for long-term preservation for future generations. We explored archives and the problems facing archivists. Archivists are responsible for making and keeping records available in society, particularly for various research-oriented programmes and activities, new ideas,

information transmission. There is a need for training and education of archivists to meet the needs of the users and to protect the precious archival material. Due to advanced technology, archival libraries are facing issues providing the collection to their users, so in that case, most libraries started the digitalization process to provide archives and rare collections to their users. For example, Khuda Baksh Oriental Library and many others provide online rare collections on their websites. The study focused on the digitalization of archives in archival libraries. Essentially, users have primarily focused on online archives, prefer open access facilities at home and need easy access to save time. Due to the advancement of technology, various databases and digital libraries provided archival material to their users, many libraries are in process. Libraries should improve the quality of tools and techniques for scholars to utilize web archive resources and need to digitize the archival material online on digital library websites, like we have an internet archive from where we can easily access all the archival old collections and also users prefer the digital archives.

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