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Integrating Gold and Green path in Library and Information Science: a review of literature

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Abstract

This study analyses the transformation of the web from a static HTML-based entity to an AJAX-driven dynamic and participatory platform, referred to as Open Access. It classifies web 2.0 into four overarching categories and delineates tools within each category illustratively. It examines that the potential uses of interactive, collaborative, and participatory tools in improving current library services and the viability of implementing next-generation library services. The study aims to address the problem under discussion from a practical perspective.

Keywords: *Gold path, Green path, Open access, Library and Information Science.*

In recent years, the Internet has emerged as a prevalent instrument for information retrieval. Information and Communication Technology has transformed the process of academic communication. Advancements in communication and information technologies have transformed human interaction with computer systems and have introduced a new array of requisite activities (Abdulrahaman et al., 2020). Currently, users are ready to utilise a web-enabled search interface to access information resources designed for a networked environment. As the number of digital repositories on the web increases, consumers find it challenging to visit each site for information retrieval strategies due to the varying software employed by these systems (Duckworth & Tong, 1976).

The Internet, and the web specifically, significantly influence computer-mediated scholarly communication. The web serves as the essential backbone of networking infrastructure, characterised by its technological, social, and legal openness. Due to the emergence of the Web, the entire process of digital scholarship. Communication is evolving from a conventional subscription-based knowledge access system. An open knowledge system is founded on a framework of ideas and practices concerning the creation and dissemination of knowledge

items transparently (Junghee Lee & Hyunjoo Lee, 2010). Knowledge objects encompass data (scientific, historical), content (books, papers, etc.), and general information (including information services). According to the definition provided by Wikipedia, an open knowledge asset is freely available for use, reuse, and redistribution without legal, societal, or technological constraints. The Open Knowledge System encompasses open data, open content, open access publication, and open learning resources. It operates on open-source software and adheres to open standards. Open access publishing refers to the dissemination of content that is accessible to all potential readers without financial or other impediments. An open access publisher produces such stuff (Berners-Lee et al., 2023).

A variety of materials can be disseminated in this manner. Scholarly journals (referred to as open access journals), publications, and artistic works, or any outcome of intellectual endeavour. In this context, non-open access distribution may be referred to as "toll access" or "subscription-based access"(Antelman, 2004). The open access knowledge system may be categorised into two main groups: open access publishing, referred to as "gold OA," and open access self-archiving by authors of non-open-access publications, known as "green OA" (Young & Brandes, 2020).

Interoperability is the technological mechanism that enables the virtual connection of repositories and other systems, facilitating the flow of information, metadata, and digital objects among them (A. M. Kaplan & Haenlein, 2010). The repository architecture is very nascent, resulting in a developing interoperability landscape that may initially appear chaotic, perplexing, and intricate (A. Kaplan & Haenlein, 2020).

The purpose of a literature review is to contextualise findings appropriately. It identifies the deficiencies and redundancies in a certain domain of study. This study is not an anomaly (Mosikyan et al., 2024). This portion of the study seeks to uncover deficiencies in the area of harvesting specifically and open access broadly through a literature review (Chigbu et al., 2023). The literature review encompasses theses, dissertations, journal articles, reports, and other relevant materials to provide comprehensive coverage of the subject matter (Ebidor & Ikhide, 2024)which entails an in-depth analysis and synthesis of the existing literature and studies related to the research topic. The literature review process thoroughly searches various databases and sources to ensure the review is comprehensive and up to date. The primary objective of this article is to provide an overview of the literature review process in scientific research, its importance in research methodology, and its different types. It also aims to discuss the purpose of conducting a literature review in research, the methods involved, and the significance of having access to relevant literature. Additionally, it provides guidelines for early career researchers on how to conduct a comprehensive literature search. A literature search was conducted in major databases and supplemented by browsing journals and citations with relevant keywords. There are four main types of literature reviews: traditional or narrative, systematic, meta-analysis, and meta-synthesis. By conducting a literature review, researchers gain a deep understanding of the research landscape, identify potential biases and limitations, and contribute to developing knowledge in their field of study. Executing a literature search is fruitless unless researchers possess fundamental knowledge about it. Hence, collecting literature for the literature review

is an indispensable step that requires a comprehensive search of various databases and sources, such as academic journals, books, conference proceedings, and other relevant publications. The present article provides vital information and literature search guidelines for early career researchers",”container-title”:”East African Journal of Education Studies”,”DOI”:”10.37284/eajes.7.2.1909”,”ISSN”:”2707-3947, 2707-3939”,”issue”:”2”,”journalAbbreviation”:”East Afr. j. educ. stud.”,”license”:”http://creativecommons.org/licenses/by/4.0”,”page”:”179-186”,”source”:”DOI.org (Crossref. The efficacy of these tools is in their capacity to provide several avenues for individuals to interact over the Internet. This chapter references many online and offline articles on metadata harvesting (Leite et al., 2019; Paltridge, 2002).

Arunachalam, S. asserts that the open access movement emerged for numerous reasons. This encompasses scholars' and researchers' readiness to disseminate knowledge, together with technological advancements that facilitated the provision of free access to information (Arunachalam, 2008). Journal publishers who raised the subscription rates exorbitantly forced researchers to look for alternative ways of sharing knowledge into the whole world. The total quality of archiving is compact of integration of gold & green path in library and information science by harvesting in electronic nature. It involved navigating the modern information environment where the relevance of cloud computing is unavoidable issue. Since Open Access has grown to be such a global issue, it is imperative that everyone involved in scholarly publishing including governments, learnt societies, publishers, policymakers, research funders, librarians, and academic communities be knowledgeable about the background, advantages, and disadvantages of Open Access (Tennant et al., 2016).

Numerous academics and intellectuals welcome this engagement in green and gold harvesting. This multi-platform web-based program extracts data and shows it coherently. It utilises an intuitive user interface to structure data. Open Access Publishing (Gold) and Open Access Archiving (Green) enhance the accessibility and exposure of published research from poor nations, such as India. However, there are a wide variety of OA strategies, and their impacts on market players are intricate. This article examines the effects of various open access models on researchers, publishers, libraries, and funding agencies. It also attempts to elucidate the reasons for the present developments in the scientific publishing industry.

Kumar et al. (2009) demonstrate that the majority of the software was in the developmental phase while delivering satisfactory service. Between Dspace, Eprints, and Greenstone. Dspace evolved as the optimal solution when expensive membership fees compelled scholars to seek new methods for global information exchange. Open access (OA) journals produced in India under the green, gold, and hybrid models provide completely free documentation archiving (Tramboo et al., 2012). In 2010, Mukhopadhyay, Parthasarathi, and colleagues introduced a methodology for metadata harvesting from various OAI/PMH compliant institutional digital repositories housing electronic theses and dissertations, which are critical requirements for open access repositories in research endeavours (UNESCO, 2015). The phenomena for designing and developing a central metadata harvesting repository from selected Indian Institutional Digital Repositories (Teli, 2015).

Numerous authors, including researchers such as Jackson Amy S. (2008), have noted that the Open Archives Initiative Protocol for Metadata Harvesting (OAI/PMH) constitutes a collaborative endeavour that offers an application-independent interoperability framework grounded in metadata harvesting. Despite being a new creation, the OAI PMH is considered a significant advancement in content finding within the digital library domain.

In essence, the developing world is asked to contribute to global research with little to no consideration for the establishment of independent scientific capabilities. A manuscript submitted for publication in a journal that happens to be open access instantly becomes open access. Like their traditional counterparts, Open Access Journals conduct peer review before making the accepted work publicly accessible (Willinsky & Moorhead, 2014).
Open Access (OA), akin to every other paradigm or technique for information distribution, has distinct advantages alongside associated costs and drawbacks. about the growth of an independent scientific capability. Open Access (OA), in this context, is widely endorsed by researchers as a novel method of disseminating scientific material (author, year; author, year; author, year).

In 2009, Bernius, S et al. claimed that academic communication, the dissemination of innovation, and open access publications constitute significant independent research in the field of library and information science.

In 2010, Creaser et al. reported research on scholarly writers' knowledge of open access repositories. This research, encompassing over 3000 respondents and augmented by four focus groups conducted across Europe in the summer of 2009, identified significant factors influencing the utilisation and popularity of open access repositories, as well as the motivations behind their use. The paper presents data derived from a mixed methods approach that included a questionnaire completed by researchers.

Many researchers reported that OA initiatives have important effects on grass-roots LIS practice. OA and library services share a complementary relationship throughout the LIS repositories.

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