

## Empowering Education in Challenging Times: Unveiling the Virtual Reading Room Initiative at General Sir John Kotelawala Defence University Library Through Open Access Resources

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### Abstract

*This study explores the successful implementation of Virtual Reading Rooms (VRRs) at Kotelawala Defence University (KDU) Library as a solution to financial constraints in higher education. It focuses on the adoption of Open Access Resources (OAR) to enhance information access. The paper discusses how digital transformation addresses changing user preferences, especially through open science initiatives. The compilation of virtual reading rooms (VRRs) of the KDU are presented as solutions to financial constraints faced by Sri Lankan higher education due pandemic situation. The objectives of the study are to present designing of the VRR and its implementation. The study employs a case study design to explore into KDU Library's experiences in establishing VRRs. The discussion outlines parameters considered, the implementation process, challenges (content selection, technical expertise, OA content longevity), and recommendations for future VRR expansion. In conclusion, this study underscores VRRs' importance in overcoming financial constraints and accommodating diverse information needs. It highlights Open Access as a means to promote knowledge dissemination. The challenges and recommendations provide insights for future library services and information access.*

**Keywords:** *Virtual Reading Rooms, Open Access Resources, higher education, financial constraints, and information access*

## **Introduction**

The economic challenges facing the country have posed significant obstacles to higher education, which include reduced government funding for resources and facilities, affecting libraries, which are essential for teaching, learning, and research. Libraries need help maintaining information access due to budget constraints, aggravated by the digital transformation's impact on user demands and learning modes. The COVID-19 pandemic has led to a shift in teaching and learning behaviours, with students relying more on e-learning platforms, prompting libraries to revert to traditional information delivery methods (Subashini et al., 2022).

Open Science initiatives, such as Open Access Resources (OAR), have gained popularity. OAR aims to remove paywalls and make research and information globally accessible, a concept promoted by IFLA and the Lyon Declaration (<https://www.lyondeclaration.org/>, 2014). This transition to Open Access is influencing the financial commitments of higher educational institutions. Open Access Resources serve as a vital solution for libraries facing financial constraints. They are widely accepted for sustainable development, with a positive global trend toward their adaptation in various forms (Okuonghae & Achugbue, 2022).

## **Objectives**

This paper delves into the analysis of Virtual Reading Rooms, focusing on their role in promoting Open Access concepts within institutional information provision facilities, with a specific emphasis on the KDU (General Sir John Kotelawala Defence University) Library. It explores how the library implemented Virtual Reading Rooms using Open

Access resources to support scholarly research while also aiming to share the experience and concept of these rooms as gateways to global information access. Additionally, the abstract examines how Virtual Reading Rooms can offer practical solutions in the library and information sector, aligning with emerging trends in information access. The KDU Library's approach is poised to serve as a model for the country's library and information sector, presenting a market-oriented and service-oriented solution to enhance information accessibility.

**Objectives of the study are;**

- Relate the significance and necessity of going for an alternative resource access solution through the Open Access initiative.
- Describe the design created and the implementation process adopted in setting up Virtual Reading Rooms at the KDU library website.
- To explore the challenges faced when implementing the Virtual Reading Rooms and,
- To make suggestions for further expansion of the Virtual Reading Room.

**Literary account on OA Initiative**

Emerging technologies have revolutionized information access and sharing, leading to numerous open-access initiatives worldwide (Joshi et al., 2012). The Budapest Open Access Movement began in 2001, with the term "open access" initially not being widely accepted. Two approaches, Green OA (self-archiving) and Gold OA (open-access publishing), were developed. Contributions to OA include the Budapest

Open Access Initiative (BOAI) in December 2001, the Berlin Declaration in 2003, the Organization for Economic Cooperation and Development (OECD) Declaration in 2004, and the Brazil Salvador Declaration in 2005. The International Federation of Library Associations (IFLA) declared open access in 2011, and in 2022, an Open Access Working Party was established to promote open access further. The International Federation of Library Associations (IFLA) and the Lyon Declaration emphasize the importance of libraries as intermediaries in providing access to information (<https://www.lyondeclaration.org/>, 2014). According to the UNESCO Continuum of OA, Open scientific publications, Open research data, Open educational resources, Open source Software, and Open hardware formulate the first pillar, 'Open Scientific Knowledge' of the Open Science Continuum (<https://www.unesco.org/en/open-science/about>; [https://en.wikipedia.org/wiki/Open\\_science#/media/File:UNESCO-Open\\_science-pillars-en.png](https://en.wikipedia.org/wiki/Open_science#/media/File:UNESCO-Open_science-pillars-en.png)). Slowly yet steadily, OA OA-based publishing has been picking up on par with the reputed indexing services. In 2012, almost 200 journals from many countries contributed to the Directory of Open Access Journals (DOAJ). Librarians have found a significant relationship between digital access tools, such as library websites and institutional repositories, and the provision of open educational resources in academic libraries (Nisrim, 2023).

University libraries are increasingly interested in Open Access (OA) due to its ease of access, searchability, and online assistance (Kaur & Chia, 2009). Collaboration with OA movements can help overcome research visibility constraints (Lrhoul & Ameer, 2022). Sinha (2008) emphasized the significance of scholarly journals available through open-access channels. However, challenges such as costs, author unwillingness to

generate content, unclear coordination systems, lack of institutional support, and copyright issues hinder OA adoption (Chisita & Chiparausha, 2019). Knowledge about licenses, such as Creative Commons' "CC BY-NC-ND" and "CC BY" frameworks, is crucial for libraries. These licenses authorize various uses, including reading, printing, downloading, displaying on repositories, translating, and using for data mining purposes. Understanding these licenses is essential for successful OA adoption ((Open Access Essentials for Librarians, 2023).

## **Materials and Methods**

The study examines the institutional experience of senior staff at KDU Library in compiling Virtual Reading Rooms (VRRs) for all faculties using a case study design.

## **Results and Discussion**

### **Basic parameters considered**

VRR has been implemented by considering different parameters.

User needs - The KDU library faces challenges in providing authenticated resources to facilitate technical advancement in the fast-paced digital environment, as user needs become diverse and access to information resources needs to be improved to meet these needs.

Curriculum-based / tailored information provision – with learning contracts assigned by the faculties, students need instant and deadline-based information. Access to data from different mobile devices by users and for the library staff in mediating the requirements is essential for an alternative solution.

Anytime /Anywhere access - VRRs aim to reduce government funding

and costs for research-based information resources, enabling anytime-anywhere access, particularly for Z-generation, and promoting online digital content.

OAR platform adoptions by libraries globally have also been examined to understand the phenomenon as a pre-requirement of the implementation process.

### Implementation process

**Identifying user Needs:** The library gathered user needs from faculty curricula, reading lists, faculty views, and student queries through surveys, interviews, and occasional user queries.

**Open Access Initiative:** The KDU Library implemented the Open Access model to facilitate knowledge dissemination and collaboration within the academic community, enabling users to access research articles, journals, and other scholarly resources (Joshi et al., 2012).

**Categorizing VRRs:** VRRs are categorized based on institutional structures, with KDU's VRR structured to provide quick access to information related to their field of study.

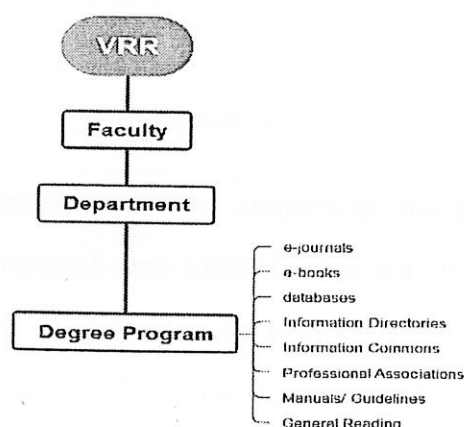


Figure 1: Basic structure of the VRR

**Curating Resources:** Virtual Reading Room (OAR) includes databases, scientific presentations, video material, podcasts, discussion forums, e-journals, e-books, reference materials, media channels, primary evidence, guidelines, procedures, manuals, and learning supportive tools. OA license framework has been considered when selecting the resources.

**Technical Infrastructure:** The university and library have implemented a robust technical infrastructure for seamless VRR access, ensuring device compatibility, regular updates, and proper staff training.

**Training and promotion:** The library provided training and promotion for VRRs, assisting staff and students through demonstrations, coordinating faculty liaison librarians, and promoting VRR content through emails, awareness sessions, and discussions.

### **Challenges in the implementation of VRR**

**Selection of content:** Selecting VRR-linked content requires consideration of authority, accuracy, updating status, relevancy, and license policies. A solid content management system fulfills user information needs with quality OARs.

**Technical Expertise:** The library invests in qualified IT (Information Technology) workers to design and administer VRRs, diagnosing technical difficulties and ensuring smooth system operation through training and specialist hiring.

**Lifetime of the OA contents:** It is observed that the lifetime of the OARs is not stable, and some content may terminate its OA provision. Thus, it is required to monitor the VRR content frequently to ensure the OA provision is still available.

**Continuous usage:** The Library should implement a strategic strategy for continuous VRR usage, integrating it with teaching, learning, and research activities through workshops, training sessions, promotional materials, and social media engagement.

### **Suggestions for future expansion of VRR**

The Virtual Reading Rooms (VRR) are designed for user-centric use, focusing on intuitive design, user-friendly interfaces, and device adaptability. They aim to improve efficiency and productivity by incorporating advanced search functionalities, learning guides, and quality information evaluation. Policy documents should be developed to maintain format and content standards, and a mechanism for user feedback should be implemented to enhance the VRR's quality.

### **Conclusion and Recommendations**

To address the financial restrictions, user needs, and digital transmission through OARs, the Virtual Reading Room was implemented by the Kotelawala Defence University Library. It enabled access to a vast range of OARs through virtual platforms that cater to the information needs of the staff and students at the university. The implementation process carried out by different steps and contents is on par with the curriculums of each degree program. Additionally, it caters for the information needs of the military user community, both officers and other rankers. This initiative also supports SDG Goal No.4 for managing Quality Education. OA license frameworks, the lifetime of the OA content, technical expertise, selection of the content and maintaining continuous usage were identified as the challenges in the implementation of VRR. Developing a policy document, adding learning guides, incorporating



classroom activities, establishing mechanisms to obtain user feedback, and enhancing search options are the suggestions for the future development of the VRR.

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