Winter 11-25-2020

Open Access Resources as an Opportunity for Academic Libraries during Pandemic: A Study

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Open Access Resources as an Opportunity for Academic Libraries during Pandemic: A Study

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Abstract

The purpose of this study is to identify the benefits of open access resources for academic libraries with a special reference to an emergency like the COVID-19 pandemic. The study has also highlighted the role of libraries and librarians in the provision of services during the COVID-19 pandemic. In the same way, the second purpose was to highlight the efforts of HEC and high ranked university libraries during a pandemic to cater to the needs of their users. The authors used two methods for completing this study, literature review and website analysis. The first two

objectives were studied based on the literature review. The second method was the website's analysis of major academic libraries of Pakistan to identify the steps taken during the pandemic to facilitate the users. The results of the study show that academic libraries used open access resources to support the research activities of their parent institute. The major purpose of using open access includes the fiscal constraints, time involved in getting the fee-based copies of journals and articles, budget cuts by parent institutes, and less involvement of authorities towards libraries. The website's analysis shows that academic institutes were highlighting the open-access resources on their websites to fulfill users' and researchers' information needs with the resources they can access in homes or in isolation during the COVID-19 pandemic. This study helps to view the status of digital services offered by highly ranked university libraries in Pakistan in pandemic when physical services are closed. It also helps library administrations to use open access resources for the provision of services in emergencies when campus-based resources cannot be shared. The study was limited to the benefits of open access resources for academic libraries and in terms, university selection as only the top 5 university libraries were selected for review.

Keywords: Open Access Resources, Open Access-Pakistan, Open resources, the COVID-19, Open access and pandemic, Open access-benefits, Open access-Academic libraries

Introduction

The term Open Access (OA) refers to the free and unrestricted access to scholarly material available on the internet, which can be downloaded, read, copied, or used by the researchers and scholars. This can also be defined as information resources available in an open access domain which gives the rights to users to access the desired material from anywhere, anytime without any charges. Budapest Open Access Initiative identified two strategies for open access; self-archiving where authors will place their refereed articles in an open, freely accessible online archive, and open access journals where authors publish their articles in open-access journals that do not charge subscription/access fees from readers nor apply copyright restrictions (Schmidt, Sennyey,& Carstens, 2005)[1]. The two categories, self-archiving, and open access are also defined as Gold and Green in a study of Lewis (2012)[2]. Willinsky (2003)[3] identified nine flavors of open access, that includes: 1) e-print archive, 2) unqualified (immediate and fully open access publication of a journal), 3) dual-mode, 4) delayed open access, 5) author fee, 6) partial open access, 7) per-capita, 8) abstract, and 9) cooperative-approach (institutional members support open access journals). Open Access comprises several features that support the OA movement. According to Velmurugan (2010)[4], the following are the salient features of OA resources; Scholarly and scientific literature freely available online. Anyone can use it without any discrimination of geographical boundaries.

- It provides the facility of full-text availability. It can be accessed anywhere and anytime.
- It is free form licensing restrictions.
- It gives a range of formats such as scholarly articles and their preprints, texts, images, sound, videos and dataset to software.
- In many cases it is freely available for users but there is a fee for authors or producers.

- Authors invest with the expectation of return in a high research profile rather than payments.

Literature has highlighted the use of open access resources by researchers in different contexts. Nagaraj and Bhandi, (2016)[5] studied the use, awareness, and utilization of open access resources by the researchers from Physics. Vlachaki and Urquhart (2010)[6] highlighted a low awareness with open access resources among the researchers from biomedicine in Greece. Singh (2016)[7] studied the use of electronic resources by the Postgraduate students of Doaba College Jalandhar as they use e-resources for their study, research, and consultancy. Nicholas, Jamali, Huntington, and Rowlands (2005)[8] revealed that out of 3,787 respondents one-third (34%) knew nothing about open access. Kaba and Said (2015)[9] reported that faculty members of Al Ain University of Science and Technology, United Arab Emirates have positive perception of OA. Fullard (2007)[10] reported little interest in publishing by South African faculty members in OA journals.

Academic libraries are at the forefront of the open-access revolution and considered to be greatly benefited from open access resources. Bailey (2006)[11] mentioned that open access has significant implications for libraries, especially academic libraries. Okamoto (2013)[12] highlighted libraries as key advocates for Open Access Textbooks (OATs) and Open Access Educational Resources (OERs). Jain (2012)[13] summarizes a list of benefits for researchers, readers, libraries, society, journals, publishers, funding agencies, universities, and even governments. Giarlo (2005)[14] highlighted that due to the less involvement of parent institutes towards libraries, yearly budget cuts and high cost of books and journals affect the library's performance. To cater to the user in such situations, the availability of open-source highly affects the efficiency of libraries and helps them to support the institutional research activities by providing information at the right time in the right format with low cost and minimum time.

Schmidt, Sennyey, and Carstens, (2005)[1] identified the availability of open access as a challenge for libraries. They mentioned that if the material is available online, the patrons will not bother to visit the library as they will find everything on the internet. However, during the health emergency 2020, which has confined the whole world, open access comes as a blessing for developing and under-developed countries who are facing economic issues. Libraries are playing the role of mediator between patrons and open access, library patrons are usually not really aware of the open-access resources available to facilitate them, they keep on contacting the librarians with their queries. In such situations, it is very important for the libraries to keep dealing with the user's queries to engage them in research activities. Ali and Gatiti (2020)[15] highlighted that librarians should maintain their core services provided for users during any kind of pandemic. The study also summarized some of the major resources for medical health professionals and highlighted that librarians should keep providing their services during tough times.

There are now many open access repositories around the world. Open Directory of Open Access Repositories (OpenDOAR – www.opendoar.org/)[16] provides a quality ensured listing of such repositories. By 2020, there are "1500" repositories registered to OpenDOAR that include 4 repositories of Pakistan. Along with these four repositories, almost every academic institute especially higher education institutes and universities, has been managing their institutional repositories. Sheikh (2020)[17] mentioned that almost 20 percent of university libraries of Pakistan have institutional repositories that are neither accessible through the internet nor mentioned in OpenDOAR. By 2017, there were fifty open access journals mentioned in the Directory of Open Access Journals (DOAJ), but till 2020, this ratio has increased to 64. In a local context, studies have identified the status of open access; Qutab (2012)[18] highlighted the efforts undertaken within Pakistan to support open access and identified that the concept was new. Sheikh (2019)[19] analyzed

the awareness, use, and attitudes of Pakistani faculty members towards scholarly open-access resources. Sheikh (2020)[17] highlighted the open access movement in Pakistan. However, no such study has been conducted to identify the importance and usage of open access resources during the pandemic and emergency situations, because no such situation has been faced at such a large level. COVID-19 crisis has sparked greater visibility of freely accessible scholarly books and articles. Students and staff can no longer visit physical libraries, millions of research papers have been released online to support studies and vaccine preparations.

In this context, this study was designed to summarize and analyze the literature available in the form of open access resources and their use and impact on libraries with a special focus on health emergencies (COVID 19). However, the objectives were to;

- Explore the benefits of open access resources especially in developing countries
- Determine the role of libraries to promote the use of open access resources in pandemic
- Examine the website-based services of top-ranked universities libraries and HEC in pandemic

Methodology

This study is based on national and international literature published on open source resources. The search terms include; open access, open access-libraries, open-access resources- Pakistan, open access repositories, institutional repository, open-access resources in Pakistan, institutional resource-Pakistan, open access-librarians, open access, and pandemic, libraries and pandemic, open access-benefits. The Higher Education Commission of Pakistan summoned discovery tools and major available databases have been searched including LISA, LISTA, Science Direct, Jstor, and Google Scholar to access maximum literature relevant to the topic. Articles were selected after

reading the abstracts, selected articles were discussed among researchers to derive the major themes. In order to analyze the current situation, digital services offered by libraries in this pandemic, library websites of top universities of Lahore were also examined.

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Literature Analysis

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The current situation created by a coronavirus (COVID-19) is bringing changes in every field of life around the world. In this pandemic, when everything globally is held and all educational institutions are closed, libraries are providing remote services. The availability of unrestricted access to scholarly and scientific literature, for researchers, students, teachers, and non-academicians is a need of time (Ogungbeni, Obiamalu, Ssemambo, & Bazibu, 2018)[20]. Open Access (OA) resources are a major source of information and the facility of OA is a blessing not only for libraries but for users too. UNESCO (2020)[21] considered OA as an important source of scientific information which provides openly licensed information to citizens. Libraries can take advantage to serve the users by keeping 'social distancing' through online services (Walsh & Rana, 2020)[22]. During the provision of online services, libraries can use OA resources and may guide users about how to remotely access OA resources by themselves to fulfill their needs. For the last two decades, libraries have been lobbying to introduce alternative ways for research dissemination by developing institutional repositories or digital libraries to support OA and facilitate their users. This is the right time for libraries to advocate OA usage and to educate researchers, faculty members, and students to use OA resources free of cost remotely (Cox, 2020)[23].

Objective 1. Benefits of Open Access Resources

Literature has highlighted many benefits as well as the challenges of OA resources. Umar, Kabir, Dahiru, and Amishe (2017)[24] highlighted the benefits of open access resources including access to information resources at no cost, getting informed to stay current in the field, and satisfying the

urge to contribute to knowledge. They also highlighted the properties of open access resources such as increased citation rate, visibility, and speed in communicating research ideas. Frandsen (2009)[25] concluded that open access has straitened the way for the researchers who belong to developing countries and have limited access to scholarly material because of the high costs of journals. Open Access resources provide numerous benefits to different segments of society such as;

a) Access Benefits for Library Users

Jain (2012)[13] mentioned the benefits of OA particularly for developing countries, such as; it solves the issues of permission and payment subscription of scholarly journals for libraries. In this pandemic period, when libraries are facing access issues due to non-payment, the adoption of alternative ways as OA is the best way to provide the services to users. It provides scholarly material without any discrimination. Students and teachers can use these OA resources for teaching and learning while accessing from home. OA facilitates the researchers to access freely available literature without any restrictions. It also provides the opportunity to publish and have wider visibility, discoverability, and usage of research findings. Access to scholarly and scientific literature is a common problem of all developing countries due to limited resources. OA resources increase the availability of open resources for students, teachers, researchers, and common people. Libraries can also provide their services by creating awareness of OA resources and their associated benefits.

b) Financial Benefits

Corrado (2005)[26] summarized that lower cost, greater accessibility, and better prospects for long-term preservation of scholarly works as three major benefits of open access. The author elaborated that open access ensures long-term access as compared to licensed journals because open access

allows libraries to create local copies and repositories of these resources. He further explained that libraries of economically disadvantaged areas can get a greater benefit from material available through open access. Open and unrestricted access to scholarly material helps researchers from developing and financially challenged countries (Christian, 2008; Canada, 2009). [27, 28]

c) Benefits for University's Research Visibility

The open-access model provides great opportunities not only for libraries, students, teachers, and researchers but also for universities to use and support the OA movement and have wider visibility of their research and researchers' profiles. Universities can invest in this model by supporting financially their researchers to publish through the OA model and creation library research repositories based on OA research. The growth of OA worldwide is exponential as illustrated in (Figure 1).
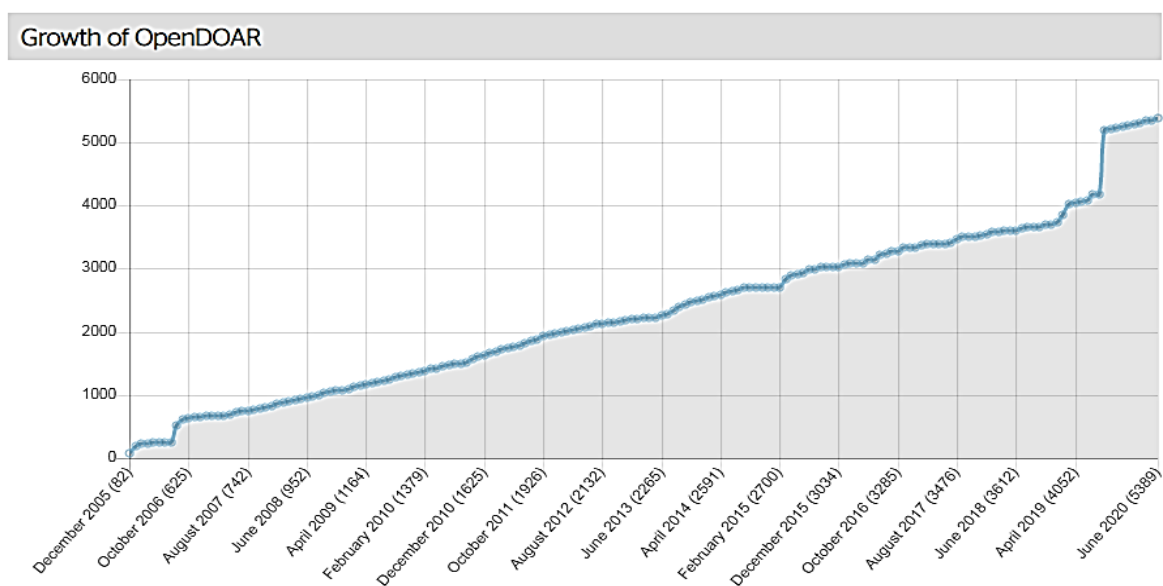

Figure 1. The Growth of Open Access According to OpenDOAR Global Directory of Open Access as of June 2020 (Sources: https://v2.sherpa.ac.uk/view/repository_visualisations/1.html)

Figure 1 shows that the growth of OA is rapid as countries are adopting this phenomenon. Pakistan, being a developing country, can get several benefits from OA, however, it is lacking behind as compared to developed countries. As Sheikh (2019)[19] reported that though OA provides several benefits, third world countries are lacking behind as compared to a developed one. Likewise, Qutab (2009)[18] mentioned that the OA movement in Pakistan is lacking, people at a personal level or institutional level are not aware of the benefits of OA. There is a need government must take some steps to support this movement through that they can bridge the digital divide gap.

Objective 2. Librarians and Libraries Role in Pandemic

Academic libraries are playing an immense role by supporting OA initiatives because the mission of all libraries is to connect people with information. In this pandemic, the responsibilities of libraries and librarians have been changed this can be called a paradigm shift in the history of libraries. Rafiq et al. (2020)[31] discussed that due to this paradigm shift, new roles of librarians have emerged for the provision of online services, globally libraries are struggling to provide online services to their users because of libraries' closure. In the context of Pakistan, OA provides immense advantages to empower the research and researchers with limited resources. Librarians can support their users and fulfill their information needs, especially in this pandemic crisis when libraries are also facing a financial crisis due to budget cuts. Librarians can take it as an opportunity to tackle it with their skills. As the use of OPAC by the library users is a common need through that library can add OA related resources link within their OPAC's (Cyer, 2011)[29]. Similarly, institutional repositories of organizations are much-needed librarians can perform their role in this regard too. Engeszer and Sarli (2014)[30] pointed out that institutional repositories are core for institutions because they provide seamless access to institutional author's research. It is important

for university libraries to develop their ETD's repositories for the provision and long-term preservation of institutions' research. Libraries can play the role of publishing by creating institutional repositories of their institutions and OA resources that are much needed. Open access is important for economic and technological developments in developing countries. Shiekh (2020)[17] discussed that as developing countries are taking interest in the OA model, some initiatives of OA have also been taken in Pakistan. The author reported that fifty OA journals published in Pakistan are available in DOAJ. Similarly, two hundred and fifty-nine journals are recognized by the Higher Education Commission (HEC) published by different universities from which two hundred and one are based on the OA model. HEC has also developed 'Pakistan Research Repository' http://prr.hec.gov.pk/jspui/ of the thesis with the aim to provide remote access to research material.

Objective 3. Website's Analysis

Higher Education Commission Role in COVID-19

In Pakistan, HEC works as a governing body that regulates the universities in Pakistan. The role of HEC in COVID-19 is also crucial because it's the only governing body that issues instructions to higher education institutes. In this pandemic, HEC has addressed this issue seriously or issued step by step guidelines to universities for the implementation or monitoring of online education. Through these step by step guidelines, HEC enforced universities to provide the list of available and potential resources of libraries that can be helpful for the provision of online education. (Figure 2)

Figure 2 Higher Education Commission in Pandemic COVID-19

During the emergency time, urgent need of information arises which needs an immediate response to cater to the need. To analyze the current situation created by the COVID-19 and libraries remote services, libraries websites of top five universities of Lahore, Pakistan (Table 1.) were browsed.

Table 1. List of Public and Private Top 5 Universities of Lahore

Sr. No	University Names
1.	University of the Punjab, Lahore
2.	University of Engineering and Technology, Lahore
3.	University of Management and Technology
4.	Lahore University of Management Sciences
5.	The University of Lahore

In order to fulfill the third objective of the study, library websites of the top five universities were browsed extensively with the focus of OA resources availability on library websites, remote services delivery, COVID-19 related special material, and digital services guidelines. While browsing the library websites it was found that during COVID-19, only two libraries have modified their websites and added OA resources along available physical resources to cater to the needs of users. Figure 3 shows that the first library (University of the Punjab Library- PU) has provided pop-up guidelines to access and use library services and resources remotely in a pandemic. They have also updated a specific list of open access resources according to the type of sources (articles, eBooks, and videos) and according to the subject (medical, social sciences, etc.).
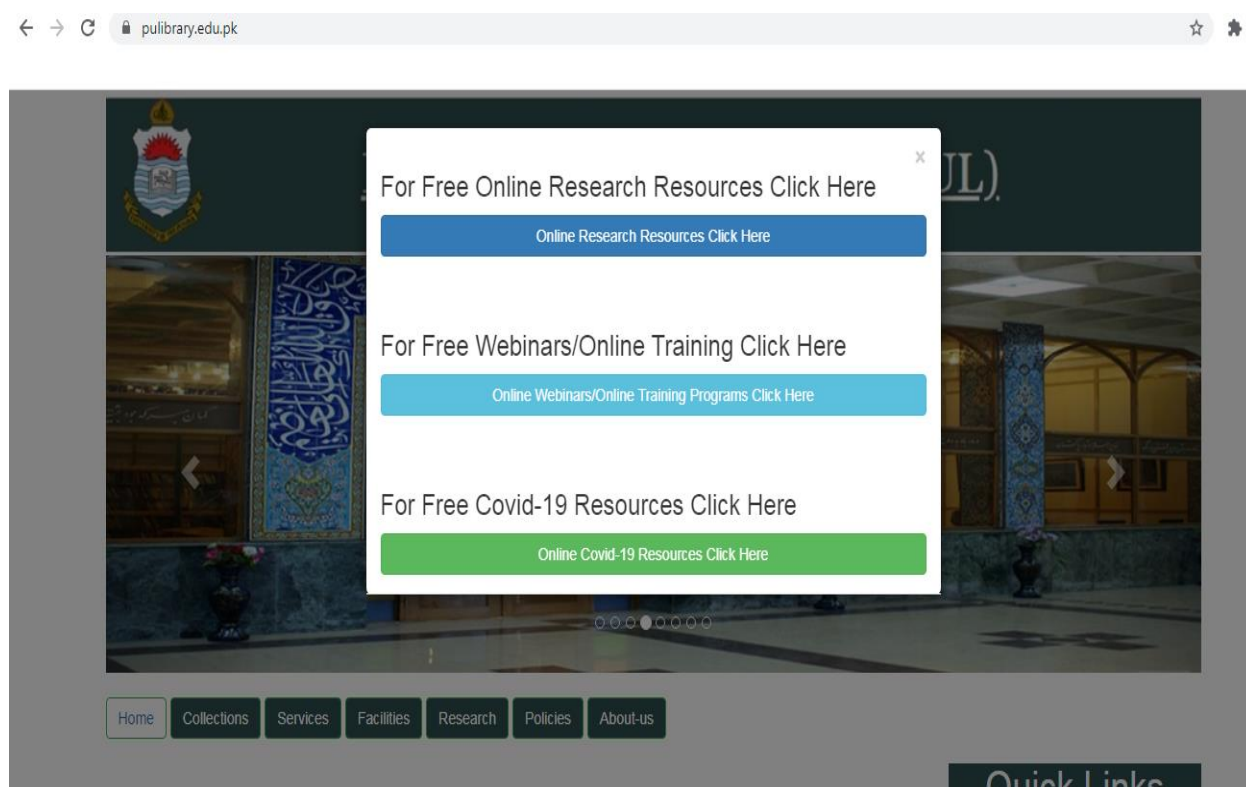

Figure 3. PU Library Website in Pandemic COVID-19

Similarly, another library (Lahore University of Management Sciences LUMS) also introduced remote services for library users to access library and librarians from anywhere during pandemic remotely. They also put pop-up message "Stay *Home Go Digital*" with special reference to COVID-19 situation (Figure 4).
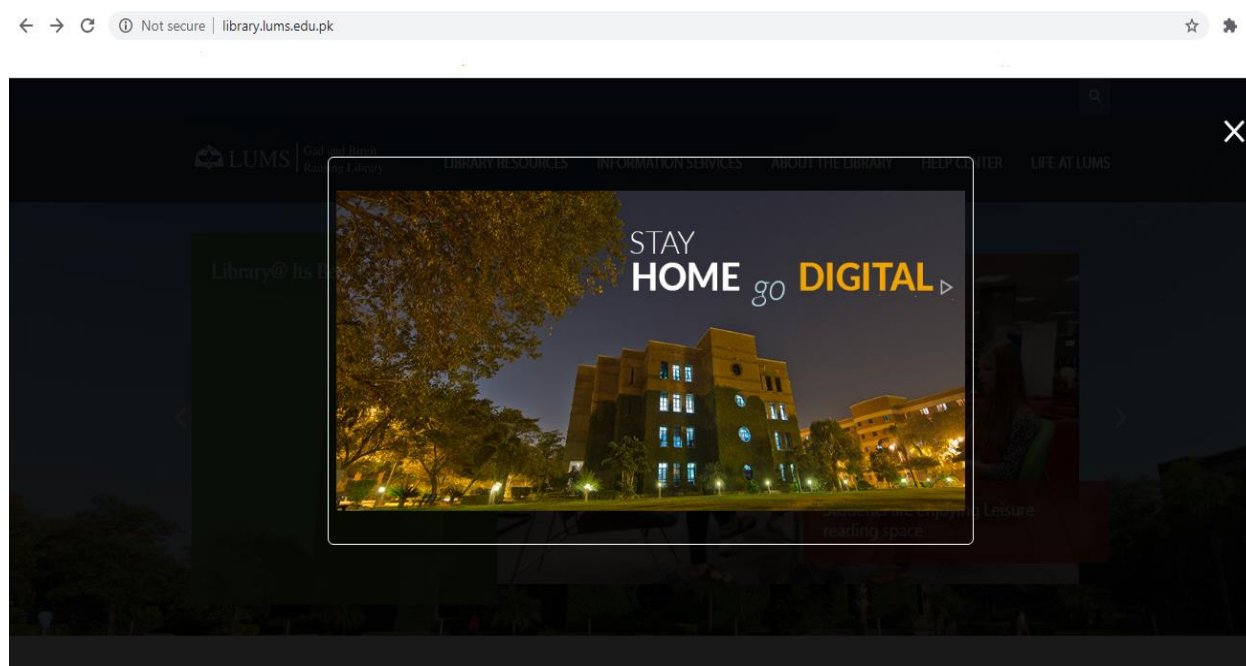

Figure 4. LUMS Library Website in Pandemic COVID-19

On the other hand, the rest of the three libraries neither modified nor added any OA resources or COVID-19 related special guidelines for library services. As two libraries have fully updated their websites according to the current needs, it shows an optimistic picture of Pakistani university libraries preparedness to tackle emergency situations. Around the globe, libraries are closed but are providing services remotely to fulfill the needs of the users. Publishers are also playing their own role by providing free access to their resources during a pandemic. Libraries are referring

their users towards these available resources during a pandemic. Both universities have also listed these freely available resources with special messages from publishers.

Recommendations

Based on the above literature review the following recommendations have been formulated to tackle any kind of emergency like the COVID-19;

- Academic libraries can play their role by referring library users towards OA resources to fulfill their information needs. Therefore, academic librarians should create awareness and encourage faculty members and researchers to publish their research in OA scholarly journals for wider visibility of research.

- University administration must financially support their faculty and researchers to publish their research in OA journals and submit it in institutional repositories.

- Institutional repositories must be initiated by the academic libraries to promote the research culture and compilation of the institution's researcher's data.

- The Higher Education Commission (HEC) must take steps to enhance the material and visibility of 'Pakistan Research Repository' by providing access to MPhil thesis and other research projects.

Conclusion

Open access material is free to read, use, copy, and distribute. Open access has many benefits for financially disadvantaged countries like Pakistan including the cost-effective access for users which will help them to enhance their abilities. The study summarized the benefits of open access resources for countries like Pakistan during a pandemic faced by the whole world due to the

COVID-19. The study also highlighted that the open-access resources situation of Pakistan is not very encouraging. The Higher Education Commission needs to develop a policy for higher education institutes to develop their institutional repository to enable the users to access the material on their own. The authors are further interested to investigate the institutional repositions of Pakistani higher education instructions and their role during the pandemic.

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