

## Challenges and Opportunities of E-resources during COVID-19

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### Abstract:

During the pandemic of COVID-19, the importance of e-resources is phenomenal. Lot of e-resources has been made freely available and the educational institutions have shifted from physical to virtual sessions. User's preferences are more for e-resources and virtual libraries in this critical situation. In spite of innumerable advantages of e-resources, there are certain problems also relating to their usage, maintenance, management, etc. which need collaborative efforts of professionals and all other bodies associated with creation, distribution and use of these resources to establish the sound practices. The paper highlights different challenges faced by the user of e-resources and also several edutech opportunities available locally as well as globally in a universal library.

**Key words:** electronic resources, collection development, EDUTECH, pricing.

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### I. INTRODUCTION

During this unprecedented covid-19 pandemic situation information technology has made an important impact on availability and accessibility of e-resources. Multiple resources have been shared with people at large for quick and comprehensive access using user friendly interface. Among all academic e-resources, freely accessible e-journals has called the greatest revolution in the capture and dissemination of emerging academic knowledge<sup>1</sup>. Accessibility to limited resources which used to be satisfying during 1990s and 2000s is too inadequate in the present environment to cope up with the exponential growth of literature. Today, e-resources are in abundance, available individually or through package deals from the various publishers. It is the contribution of ICT that enabled knowledge processing, searching, storing, dissemination and expeditiously usage very friendly and easy. In recent bad time, digital technology is used to the fullest and was made available at our doorstep, capable of effectively creating and capturing information in various formats, making these available to others<sup>2</sup>. E-resources are available with increased accessibility beyond time and space restrictions, restricting information users to visit physical libraries. This technology has fulfilled the long dream of Charles Jewett who had conceived the idea of *universal library* more than a century ago.

#### Impact on User Behaviour

The impact of communication technology on user behavior and attitude has been tremendous. Communication pattern in local research environment significantly influenced e-resources use<sup>3</sup>

Use of e-resources is more dependent on technology than printed material. Therefore, usability of e-resources has been increasing with the improved Internet facilities. There is a sea change in the users' behavior and attitude in information searching and use. In present pandemic situation when people, who are mostly impatient and time conscious, cannot go out freely, wants knowledge and information at finger tips and e-resources are satisfying those needs. So, libraries are forced to change from physical to virtual environment and make available tools and techniques so that flow and use of information is simple as well as effective. Publication of e-books is increasing but their acquisition represents only a small proportion of acquisition of the academic libraries<sup>4</sup>. If users' behavior and attitude towards e-resources are taken into account at present time, libraries are bound to shift from print resources to e-resources to meet their preferred approach towards e-resources. The users' information seeking behavior can be summed up as under:

- Least reliance on physical structure of libraries
- More dependence on online world.
- Convenience and instant availability and accessibility are dominant consideration.
- Highly impatient 'just now or never' is the common behavior. They like to have libraries on their desktop computers or laptops, palmtops, even on mobile and iPod<sup>5</sup>.
- Get satisfied with whatever is easily available even at the cost of standard and quality.

Therefore, digital collection should respond to the user's needs and provide an appropriate balance between quality and demand<sup>6</sup>. Quality assessment of e-resources is more difficult than printed materials. Reading of e-books is still not as convenient as printed books. Packages of e-books are costly. In the present scenario-books and printed books are complementary and supplementary to each other having their own advantages.

### Collection Development

Collection development of e-resources is essentially development of e-resources is essentially more complex than the printed resources. The cost of e-resources are not fixed as of printed resources which varies depending upon various variables like number of concurrent users, level of access, nature of the institution. Different renewal policies, etc. Limited access to resources have been given at present but may be withdrawn after the pandemic. Generally e-resources are made available till the time it is subscribed and denied after the expiry of the subscription period unless perpetual access is agreed upon.

Some specialists dealing with e-resources have worked out following parameters for evaluation of e-resources:

Content	Convenience of use
Conditions of access	Statistics of use
Updatability	Technical characteristics and quality of service
Convenience of cataloguing	Factors of value added Structure of price formation <sup>7</sup>
Longevity	

Today, accessibility is the target not the ownership which has its own problems. Which are even under subscription, such as you may not be allowed to download whole issue of the journal, may not send article through e-mail, may not store articles for future use, etc. There are five important elements of collection development: Budgeting type of material, selection acquisition and evaluation<sup>8</sup> to be taken into account by all libraries. The whole process of e-resources is comparatively more challenging. It is important to consider the range of purchase, pricing models available and determine which one meets the needs of the library in terms of access and archival and value for money<sup>9</sup>. Every library today has to add e-resources along with printed material which requires knowledge of pricing policies and models of different publishers as well as scope, coverage and usefulness of data resource so that right choice in selection of resources is made<sup>10</sup>.

### Free E-resources

In the present era, only collaborative efforts can be sustainable. Lots of tools are used nowadays while imparting the lessons. These teaching tools are collectively known as EDUTECH, use of technology in education. As per Mitra A<sup>15</sup>, Teaching pedagogy now a days is experiencing a movement from teacher centric approach to learner centric approaches. It also suggests for innovative pedagogies for equitable education using technologies, as the recent generation is much more tech savvy. Mitra A<sup>16</sup>, has highlighted that teaching pedagogy nowadays is experiencing a multi-dimensional aspect and it is shifting from the stereotype classroom lecture to learner centric online classes.

The details of few freely available resources are as follows:

- **Kahoot for quiz:** Allows trainers to create and manage 'Kahoots' in the form of quizzes, surveys or polls; either asking quick questions 'on the go' to get feedback or opinion, or more in depth questions for formative assessment. Content can be shared with learners and colleagues. Usable on PC, smartphone or tablet.
- **Quizlet for quiz:** Allows trainers to create and manage quizzes related to the topics they're teaching. The questions can be posed in a number of formats. Usable on PC, smartphone or tablet.
- **Socrative for quiz:** Allows trainers to create and manage question sets that students complete using tablet devices or smartphones. Quizzes created using PC or Teachers App, students answer questions using Student App.
- **Mentimeter for quiz:** Pose mentimeter to pose multiple choice questions for students. Each question set has a unique code. Students use //govote.at to give their answers. Trainer uses mentimeter to display responses in class.
- **Sticky moose for sharing ideas:** Allows trainers to create polls, where a question is posed, and possible responses are presented and users vote on their preferred option. Users can also add further options if they prefer. Could be used in class to collect views of students on scenario presented.
- **Popplet for sharing ideas:** Simple mind-mapping tool, often used as iOS app
- **Pearltrees for sharing ideas:** Peartrees is a tool that allows users to create an online collection of web-based resource links, in graphic form, and allows the collection to be shared with 'friends' through social networks.
- **Thinglink for resources:** Can be used to annotate images, with tags. Tags can include text or hyperlinks.

- **Photostory for resources:** Create slideshows using your digital photos. You can touch-up, crop, or rotate pictures. Adding special effects, record, and your own voice to photo stories. Then, personalize them with titles and captions.
- **Edmodo for collaboration:** Trainers can post information for their students' just like on Facebook. Learners can be organized into groups. Trainers can give feedback and badges to their learners. The trainers and learners can be linked using Google drive account
- **TeamUp for collaboration:** Team building based on interest area and skill set. Trainers can record progress of teams. Can store teams, randomly generate and have picture for each learner
- **EDpuzzle for video assignment:** Edit, add questions, comments to YouTube videos. Allows you to make videos more appropriate for learning as you can take out only that which you need, making videos shorter, and make additions that require learners to pay attention to the video.

### Pricing of e-resources

The greatest enigma of e-resources is pricing which are not fixed as in case of printed material. In subscribing printed journals and purchase of printed books, there are hardly any such problems. For example, Oxford journals policy for 2010 onwards included price of online journals as 'base' rather than print-plus-online or combined price. In these instances, the print only price will be 110% and combined price 120% of the online only price. Some publishers and vendors may deal with e-journals only, some may give offer for both e-journals and e-books together with additional benefits of accessing open sources. There are different subscription rates depending upon various factors like number of users, availing of inter-library loan, duration of subscription, level of use, on standalone system, on Local Area Network, with IP address on Proxy Server etc. Ables<sup>11</sup> described the early stage of pricing which included 'connect time, flat fee per search, computer resources, subscription or flat fee-pricing per year, differential by time of day, *free with print version.*' 'Free with print version' was to promote the use of e-resources in the beginning. Number of concurrent users/FTE(Institutional fulltime equivalents), nature of institution (some concession is given to smaller institution), more subscription to specialized institutions being less in number, perpetual access/subscription for specific period, different renewal policy; long term/short term subscription, access to back files, access through IP addresses/Proxy server, archival license, site restriction, pay-per-view, offer of open access sources with subscribed package, length of time of access(five years access may be concessional) are some of the models. Pay-per-view policy of some publishers like OVID Science Direct allow users to purchase as many articles as required using their credit card by opening an account. Science Directs charges \$31.50 per view. Pay-per-view or pay-per-use creates barrier that affects the frequency of online access and download, observes Tenopir<sup>12</sup>

## II. CONCLUSION

E-resources represent many challenges at every level of their selection, acquisition, preservation, maintenance and management as discussed. At the same time, these resources have also come with many advantages giving solutions to many professional problems like solution to space problem, providing remote access, convenience in use, increased readership with improved services, leading to more opportunities for productive research output and academic excellence within shortest possible time. Recent studies have also proved that in researchers' opinion, improved access to e-journals has positively influenced their research activities by helping them to keep up-to-date and by saving time. Use of e-resources is increasing leaps and bound as shown by many user surveys<sup>9</sup>. Technology has been behind the evolution and development of e-resources, and the same technology may be able to provide better solutions and more opportunities to have complete bibliographical control over world literature which is impossible in case of printed resources. Future belongs to e- resources, their use would go on increasing with decline in use of printed material. E-resources mostly used in 2020 due to COVID-19 pandemic worldwide. All stakeholders of e-resources has understood the challenges and bright future opportunities available in this field. In such situation and future trend, users shall have to cope up with new emerging digital environment and devise best possible techniques and methods of managing these resources efficiently and effectively for their improved availability and accessibility ensuring convenient and comfortable use overcoming all the barriers coming on the way.

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