

## Virtual Libraries during the COVID-19 Pandemic

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### Abstract

Since March 2020, following the declaration of the COVID-19 pandemic, civilization has had to adapt to a new lifestyle. Restrictions imposed by the authorities have led to a digital approach, including in the field of education. With the advent of the Internet, traditional libraries have begun to lose ground to the online environment, so the new situation has hastened the process of digitizing them, for the most part. This meant, on the one hand, the abolition of many jobs, and on the other hand, access to a large amount of information, from several resources, with a single click and in a short time. On this occasion, social networks played an important role, with public library services in many countries being active on social networks. Using this method, the institutions were involved in making important information available in the online environment. Through this article, we wanted to show the impact of the COVID-19 pandemic on libraries, as well as the reaction of the population to a new system of obtaining information and on the measures taken in the full pandemic process.

By applying a closed-ended questionnaire, we were able to highlight the impact of the pandemic on the functioning of virtual libraries, the benefits of online study, and a forecast of their future use.

The note of originality of this study is given by the news brought by the pandemic in the online environment and the dynamics of internet use in the cultural field.

Digitizing the libraries offers many advantages to information seekers, from accessing data from anywhere and anytime to diversifying the information found. We believe that access to knowledge through virtual libraries can lead to the consolidation of inclusive knowledge societies only when everyone will be able to benefit equally from the content.

### Keywords

COVID-19, libraries, digital, e-libraries, online, information management.

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### Introduction

Since March 2020, following the declaration of the COVID-19 pandemic, civilization has had to adapt to a new lifestyle. Restrictions imposed by the authorities have led to a digital life approach. All fields of activity were affected, which led to measures such as changing the field of activity, and in some cases even to the abolition of certain companies. "An important part of emergency planning is to address public safety and personnel before, during, and immediately after emergencies. All libraries need to develop a comprehensive contingency plan, with clear, consistent and concise policies and procedures for staff" (Fischer, et al, 2019).

The measures imposed by the authorities also affected libraries, most of which had to be banned from physical access. This was done by suspending certain services such as outstanding notifications, any borrowed physical item not being returned at the time, which eliminated the need for a systematic quarantine of returned materials. According to a report by the National Authorities on Public Libraries in Europe (Anon, 2020), libraries have begun to close in many European countries: France (17 March

2020), the Czech Republic (April 16), Denmark (March 13), Finland (March 18), Germany (March 12-17), Greece (March 13), Ireland (March 12), Lithuania (March 16-30), Norway (March 13), The Netherlands, Poland, Portugal (March 9), Scotland (18 ), Slovenia (March 13), Spain (March 10), Switzerland (March 17) and Romania (March 15).

Traditional libraries have begun to lose ground to the online environment since its inception, and the new situation has accelerated the process of digitizing them, becoming vital for e-books, magazines, and high-quality educational content. As a lot of information that appeared in the online environment is fake news, libraries, always known as reliable sources of information, face this problem. Given that libraries are undergoing worldwide digitization processes and providing digital media to their users, it is very likely that they will be modified and offered by libraries around the world. One possible solution would be to develop automated mechanisms that can verify the credibility of digital content broadcast in libraries without manual validation (Mertoğlu, et al, 2020).

According to Mabe and Ashley (2017) in emergencies, librarians and libraries can meet the emergency, several roles, such as:

- safe refuge - libraries are, during emergencies, a safe place for most people due to their well-built buildings and locations;
- providing normal services by employees;
- functioning as an information center: with the location, resources, and centralized position in the community, libraries will provide mass communications during an emergency and will communicate with the public important research or measures;
- is a resource for evacuees - in case of emergencies, libraries will often be a centralized location, where community members can go for protection;
- gathering and storing oral histories of events - libraries and librarians can also collect information about events that take place to make them available to future generations. The information gathered can help manage such situations in the future.

Although online services and digital content take precedence, some libraries have offered reduced or alternative services for borrowing physical library materials until services previously available are resumed. Most of the employees work from home, but there is still a small part that has to work in libraries. Special measures have been created for such employees (as in all areas where physical presence at work was required), such as: providing anti-bacterial gel, introducing shifts to allow physical distancing. Also, the situations in which employees were placed on unpaid and unlimited leave throughout the pandemic period should not be neglected (Muhammad, et al., 2021). Unfortunately, the number of the latter is very large in many areas of activity.

On this occasion, social networks had an important place, public library services in many countries being active on social networks. Through this method, institutions are involved in making important information available in the online environment. (Grigorescu, 2006)

In the “Manifesto for Digital Libraries”, UNESCO and the International Federation of Library Associations and Institutions (2018) emphasized that “the mission of the digital library is to provide direct access to information resources [...] in a structured and authoritative way and to thus linking information technology, education and culture to contemporary library services”. In the same context, UNESCO provided free access to the World Digital Library, which can be accessed at <https://www.wdl.org/en/>.

#### *Advantages and disadvantages of a virtual library*

As **advantages** can include:

- *immediate access to resources* - information is available at any time, being very useful especially for people who have an extended work schedule. Also, the time to search for information can be much faster. By entering a keyword, a lot of information can be found in an extremely short time (time may vary depending on the Internet connection);
- *fast and real-time* updating of information;

- *non-existence of physical limits* - information can be accessed by several people at the same time, even remotely. An internet connection can help anyone access information that is physically thousands of miles away;
- *variation of learning styles* - the wide variety of formats of materials adapted to the needs of applicants provides a wide range of resources to meet information needs and can be customized according to needs;
- *access for people with disabilities* - the virtual library is an alternative for people who have difficulty accessing information in a regular library. For example, the provision of audio and video materials can be very helpful for people with visual and hearing impairments;
- *information storage* - in the online environment the amount of information stored can be much higher than that available in physical libraries;
- *information retrieval* - information storage can help to reuse it at any time and in a fast time;
- *developing information skills and accumulating multiple knowledge* - a user can develop certain IT skills to a small extent, by using different search tools, as well as how to use an online database. Also, access to written, audio, video materials can help any user in assimilating new knowledge, such as language (Kobayashi, 2020).
- *multiple connections* - a digital library can provide a link to any other libraries or other information sites in all areas.

The category of **disadvantages** includes:

- *restrictions imposed by copyright law* - compared to traditional libraries, if a study has copyright they must be requested;
- *addiction to the internet connection* - although we live in an internet age, there is a not inconsiderable number of people who do not have access to the internet, which means that they cannot have access to information, the only way being the traditional one.
- *the need for experts in the construction and maintenance of the site* - like any content that has an Internet connection, is subject to certain risks such as cyber-attacks, poor internet connection. That is why it is necessary to hire IT professionals to prevent any inconvenience and to maintain both the software and the hardware.

According to Gunn (2002), virtual libraries can provide a powerful learning environment, with the support of qualified information professionals and careful design.

As a result of the restrictions imposed, the educational institutes changed the physical courses with the online ones, the students were forced to use electronic materials and to adapt to the e-learning model; and researchers rely primarily on electronic journals. Digital libraries and publishers have increasingly provided free content and organized custom collections. The human capital should remain the top priority of the administration and its development and access to information (Lopez Ruiz, 2014; Lincaru, 2018)

In Romania, universities have, to a large extent, eLearning platforms based on the most popular Moodle-LMS platform or on the most popular collaborative educational platforms designed by Microsoft and Google, which contain modules of correspondence groups, virtual classes, video conferences, presentation and testing (Edelhauser, 2020).

### **Research methodology**

The need to develop a better understanding of the impact of digitalization, including the creation of digital collections and resources, on stock exchanges and society, in general, was also addressed by Hughes (2012). Thus, there is a great opportunity for cultural heritage organizations: to demonstrate that the digitization of collections has a positive impact on society, health, well-being, and its progress. Web libraries have become more competent and confident in terms of resource management and digitization. The library plays a vital role in the acquisition, storage, analysis, interpretation, and dissemination of information among library users (Asif, et al., 2020).

Schools are increasingly using digital tools, from those for managing the learning process to open online courses (e.g. MIT, Open-CourseWare, edX, Coursera), which is accentuated during the pandemic. As any emergency has a great social impact on people, libraries can outweigh their responsibilities and provide emotional and psychological support to the community towards social distancing, such as videos, online social gatherings, live video workshops. Digital library services need to explore how they provide digital services and how they respond to COVID-19 (Temiz, et al., 2020). More and more libraries have offered their digital services by organizing virtual exhibitions, increasing access to library resources, for example by increasing the number of electronic books and journals, CD-DVDs, etc. Among the services provided, we find educational materials, internet archives, free access to manuscripts, rare books, maps, photographs, and other important cultural documents from all countries (e.g. World Digital Library).

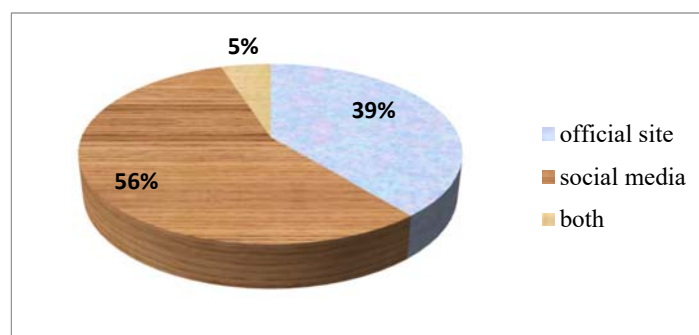
The research aimed to identify the implications of COVID-19 on libraries, as well as the reaction of the population to the measures taken by the authorities. The study was conducted in February, based on online questionnaires, on a sample of 230 respondents from urban areas, internet users, aged between 19 and 58 years. 28% of respondents are men and 72% women, respectively. Of the users of online cultural services, 23% said they often use this type of service, 49% use it only when they need to create certain projects and 28% analyzed the possibility of using online libraries more often.

### Results and discussions

As the online environment has a very large number of users, from all age categories, we wanted to find out the frequency of accessing online libraries by age category. Thus, respondents aged between 19 and 30 often use the service, those in category 31-45 use it only when they need it, and those in category 46-58 rarely access such sites, preferring to use the Internet for other sites (e.g. social networks, news sites, multimedia).

We also wanted to find out the purpose for which online library materials are accessed. Most of the respondents stated that they use it for studies (73%), the rest stating that to get information (27%)

As mentioned earlier, the role of social media increased considerably during the pandemic. 56% were informed about the necessary materials on the pages of social media libraries, 39% consulted the materials mainly on official websites, and 5% used both options (fig. 1).



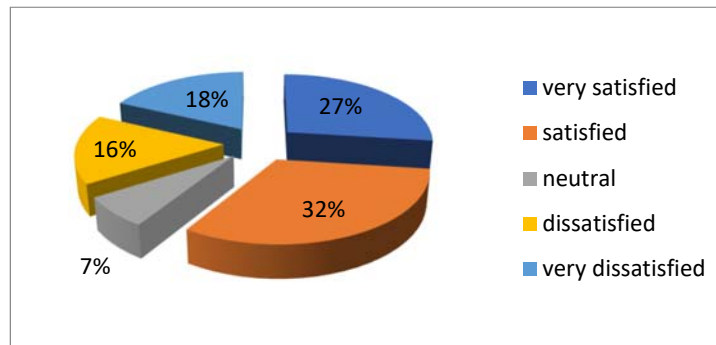
**Figure no. 1. Accessing information from official sites or from social media**

*Source: authors*

Regarding the quality of services and access to materials, we requested the opinion of the respondents regarding:

- the quality of the internet connection - 27% stated that they were very satisfied, 32% satisfied, 7% neutral, 16% dissatisfied and 18% very dissatisfied with the service of internet operators, and 93% did not have such problems (fig. 2);

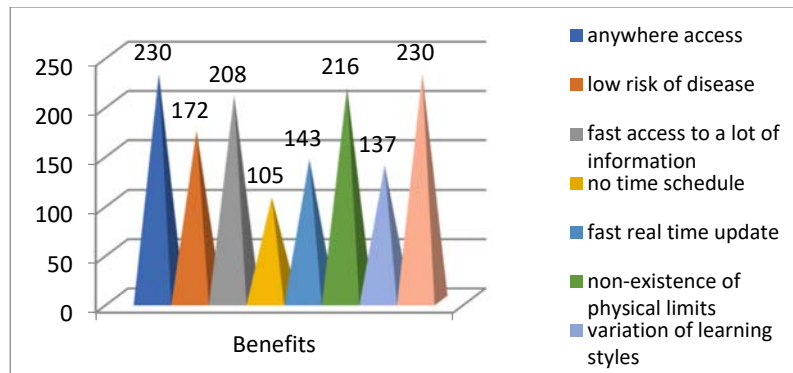
- difficulties in using online library sites - 11% found the sites very difficult to use, 23% found them difficult to use, 38% found them easy to use, and 28% said the pages were very easy to use;
- the number of materials available online - 9% considers that there are many, 22% enough, 30% enough, 25% insufficient, and 14% considered that there is a total lack of materials.



**Figure no. 2. Quality of internet connection**

Source: authors

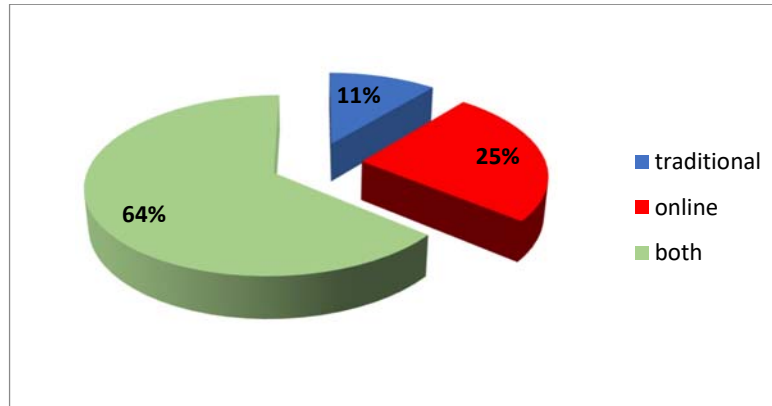
To see what benefits were appreciated by respondents, we asked a multiple-choice question. Thus, all respondents (230) considered, regarding the benefits of using online libraries, that it is a great advantage that they can have access from anywhere, 172 consider that the risk of illness is low. 105 of the respondents consider it important that they no longer depend on a specific program to be able to access information, 208 are satisfied that they have access to a large amount of information in a short time, 143 that the information is updated quickly and in time real. 216 respondents appreciated the non-existence of physical limits, 149 the variation of learning styles, and 230 the fast connections to other sites (fig. 3). Regarding the measures taken by the authorities to support libraries during this period, 94% of respondents stated that they were not informed of the type of measures taken and 6% stated that insufficient measures had been taken (e.g. additional funding, reorientation of employees, use of buildings even at minimum capacity).



**Figure no. 3. Benefits of using online libraries**

Source: authors

We have considered that library managers can keep their services online even after the measures have been relaxed. Thus, we wanted to find out how many of the respondents will use these services in the future. 82% are thinking of using this type of service (for an indefinite period) and 18% want this service to be available but do not think they will use it as often. However, the majority of respondents (64%) want to use both traditional and online libraries, 25% prefer to use the library service exclusively online, and 11% said they prefer the traditional library (Fig. 4).



**Figure no. 4. Future use of libraries**

Source: authors

### Conclusions

As the world of libraries has begun to change since the advent of the Internet, the need for information has spoken. Digitized libraries offer many advantages to information seekers, from accessing data from anywhere and anytime to diversifying the information found. The COVID-19 crisis has acted as a turning point, highlighting the many benefits of digital libraries that have demonstrated their potential. Thus, we can say that human development is promoted.

We believe that access to knowledge through virtual libraries can lead to the consolidation of inclusive knowledge societies only when everyone will be able to benefit equally from the content.

For libraries to create a more equitable higher education experience, they need stable sources of funding, either from the authorities or from institutions that can support existing services, while identifying new and relevant ways to meet the needs of the communities they serve. This help is important in unstable times, such as now, and by offering help to libraries, the winners will be all the people who want and need their services.

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