Digital Libraries:
Their Role in Building Communities

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I. Introduction

The dynamics of libraries called to reinvent themselves can only be weighed by the success recorded by the institutions in the strict area of their professionals and, broadly, by their popularity in the community whose members appreciate the quality of the services they provide. The examples of innovative library activities and services going to be presented speak about a change of mentality and responsibility in such institutions becoming more and more visible in the life of the community they serve.

Innovation is accomplished through various solutions: 1) either *integrative*, by the "democratization" of the librarians' contribution to specific activities, deeply influencing information access, or 2) *collaborative* or relational, aiming at getting various user target groups involved in their activities through careful study of their needs, or 3) *by direct participation* in all possible ways in building communities, with general, educational or research purposes directed towards all the categories of users.

David Lankes' much used citation, "Bad libraries only build collections. Good libraries build services (and a collection is only one of many). Great libraries build communities"[2] was never more actual than today. This is because libraries can no longer afford being static and stick to their traditional services. On the contrary, in order not to lose their users they have to strive for them by getting involved in the life of the community to which they belong by means of innovation and creativity.

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[1] Romanian Library Association (Bucharest Branch), Romania.
[2] David R. Lankes https://www.goodreads.com/work/quotes/21374385-expect-more-demanding-better-libraries-for-today-s-complex-world (accessed 1.11.2019).

II. Innovation in libraries via democratization and interaction

Communities are built either inside the libraries, involving stronger connections between library professionals and library end-users or as a consequence of new services and activities devoted to particular user target groups. We shall see in the following examples of such resilient relationships between librarians and user communities.

A. The Library of Congress meets the Cataloging Lab

Innovation is also visible in the way information access in libraries gets rid of constraints through their agreement with the search expressions proposed by the library users. The case in point is provided by the *Cataloging Lab*[3], a project of the Library of Congress. It brings together the official representatives of those who maintain the Library of Congress Subject Headings (LCSH) and the Library of Congress catalogers, through a wiki platform built in WordPress, a website enabling the users to update and/or add content to existing subject headings (Fox, 2018). Cataloging Lab mediates the direct participation of librarians and users to the improvement of the LCSH vocabulary by evaluating the user suggestions to construct subject headings.

The declared aim of the Cataloging Lab, according to Fox, is to mediate the direct participation of librarians to an improved vocabulary of LCSH after analyzing the proposals coming from the library users. It brings forward solutions for the vocabulary to reflect the words used by them in information search, allowing for the thorough knowledge of the subject catalogers on the decision making rules of LCSH.

In order to make a subject heading proposal or just to update an existing one, the contributor has to present the literary warrant for any suggestion made and motivate its necessity according to the Subject Authority Cooperative (SACO)[4] program.

The example below shows the field structure of a record for an accepted subject heading. Mention should be made on field 670, which is repeatable and has as many occurrences as the source data found.

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3   https://www.libraryjournal.com/?detailStory=creating-change-in-the-cataloging-lab-peer-to-peer-review (accessed 1.11.2019).
4 http://cataloginglab.org/kb/gender-nonconforming-people/ (accessed 10.11.2019).

150 __ Gender-nonconforming people
450 __ Genderqueer people
450 __ Non-binary people
450 __ Gender-variant people
450 __ Gender-creative people
550 __ $w g $a Sexual minorities
550 __ Transgender people
670 __ 2008034081: Social work practice with transgender and gender variant youth, 2008 [source data found: field repeated 10 more times]

Once the proposed subject access points are brought to a closer level of accessibility for the average user of the library, it is expected that both librarians and users are more confident that the vocabulary of LCSH "accurately reflects the words users are searching for", while the control over those words is maintained.

B. From transactional library to relational library

Today's libraries search for answers regarding information accessibility in their collections. They quantify the ways the information provided is used in the context of globalization and take social responsibilities. By innovating their services and activities according to the demands of the community they serve, libraries respond to the challenges of inclusiveness required by the unprecedented migration of huge human groups. They go therefore, from transactional to relational libraries.

The example of relational libraries emerging from the out-of-date transactional libraries is offered by Vestergaard (2018), a researcher from the Library and Citizen Service at Roskilde Libraries in Denmark[5]. Whereas traditional libraries mostly had transactional functions like lending out books and getting them back from readers, modern libraries have more complex user-oriented functions, dedicating their space and capacities to other needs in addition to education. One of the reasons is that library materials are no longer restricted to books and journals, but far more diversified, covering: music, various kinds of periodicals plus multimedia and electronic materials.

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[5] https://princh.com/modern-libraries-from-a-transactional-to-a-relational-library/ (accessed 10.11.2019)

Lending, visibly decreasing as the study results show, is far less an option for library users, who come to the library for other purposes such as: finding a safe place to interact with people having similar interests or getting information on whatever subject of interest, finding computers to connect with people, accessing online resources, participating in training courses or in debates on different topics. To keep their users, libraries need to get involved in the life of the community and customize their activities accordingly (organizing reading clubs, "makerspaces", foreign language courses and orientation services for immigrants etc.).

Apart from the diversification of services and activities, libraries need to redesign their spaces and adjust them in keeping with their new functions. Librarians, too, need to acquire new competencies demanded by the new technologies used in the library. According to the author of this research "It is the library's obligation to be at the edge of different uses of culture and uses of technologies".

C. Prerequisites demanding change

Some of the ideas emerging from the IFLA WLIC of Athens, in August 2019, deserve special attention. There's a highly demanded need for advocacy for libraries throughout the world. Libraries are in competition and represent essential partners for social development. They rely on: funders, citizens and law makers. Above all, the digital libraries in particular need new laws.

The conclusions recently brought about by a study of Lynn Connaway[6] from OCLC Research, Dublin, Ohio, entitled "Proactively positioning the library in the life of the user", state that 66% of the respondents cannot live without internet; students talk about "Saint Google"; internet is no longer age-related; printed books, however, go on being more popular than e-books or audio books.

However, libraries do play a crucial role for and have an active presence in the public space. They boost communication and interaction among people belonging to heterogeneous communities. Librarians are called to check and evaluate information but also advocate for its accuracy by means of systematic information literacy programs. In order

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[6] www.oclc.org/research/publications/2015/oclcresearch-library-in-life-of-user.html (accessed 11.11.2019).

to respond to these challenges, librarians need to go out of the library building in quest for answers and solutions to the community problems.

In addition to these, the availability of free access to information resources, commonly granted by libraries is encouraging the research in wide academic communities.

III. Open access – how far it goes?

Scholars, students, but also the public at large benefit from open access to information. Having free access to open sources is helpful not only to academia. Local administrative bodies can improve their activity or make better decisions by accessing studies devoted to good governing. Other categories of users are found in the public health system. They can freely access the latest research results and thus provide more up-to-date medical advice and treatments in a particular domain.

Whenever we talk about open access, open data, open science, open social networks, or open educational resources, we talk about data that is freely available for everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. Consequently, open access can arise suspicions and therefore, additional caution is needed at any time such resources are accessed.

Paradoxically, the growth of the open data movement is paralleled by an intensified caution in the area of intellectual property rights (Kitchin, 2014). We can then conclude that open access is controlled by the copyright laws in order to avoid misconduct, or for ethical reasons.

IV. Digital libraries and institutional repositories

According to Wikipedia[7], the institutional repositories are archives designed for collecting, preserving, and disseminating digital copies of the intellectual output of an institution, particularly a research institution. The university libraries hold a leading role in promoting their research production, cultural heritage items and whole collections by harvesting, housing, processing, preserving and providing access to digital content.

Digital libraries are an essential asset for any library whose users trust in their capacity to bring faster, secure and reliable information to them, either from local resources or remotely, via computer networks. We shall

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[7] https://en.wikipedia.org/wiki/Institutional_repository (accessed 11.11.2019).

now look at the digital collections of several Romanian public and university libraries, and consider both their own holdings and the online resources and digital services they provide.

One of the fundamental functions of the National Library of Romania is to coordinate the National Digital Library, as part of the European Digital Library. The National Digital Library has definitely the most significant digital collections nationwide; it is organized by content and events and includes the library's special collections of incunabula, old and rare books and periodicals, photos, thus enriching the Europeana with 187 contributed items.

The National Digital Library also includes an important historical archive, plus manuscripts, musical scores, maps and Japanese engravings. A substantial support to its creation was carried out by two remarkable branches, the Batthyaneum Library and Omnia Library, whose holdings are considered as outstanding parts of the national cultural heritage.

The library's website provides links to open access platforms, one of which is the Directory of Open Access Scholarly Resources (ROAD). This is augmented by the indexing and abstracting databases and directories, such as: Directory of Open Access Journals (DOAJ), The Keepers registry, Latindex and SCOPUS, the largest abstract and citation database of peer-reviewed literature.

The Metropolitan Library of Bucharest has also developed a notable digital collection. It provides access to its own digital collections of texts, images and audio-visual objects and fosters digital objects from other important institutions like the Romanian Academy Library, "Nicolae Iorga" History Institute and the Museum of Romanian Literature.

The Bucharest Digital Library, whose front page is shown in Figure 1, is going to integrate its collections in Europeana, both in terms of content and of data interoperability.

The University libraries are situated at the cutting edge of the digital solutions to improve their services and satisfy their user needs. It should not be otherwise when the target users of this particular type of libraries address the academic and research community. However, they can hardly be considered as fully digitized, most of them being "hybrid" libraries, which integrate traditional and digital collections.

RESTITUTIO is an open access institutional repository, built in DSpace and is also the digital platform of "Carol I" Central University Library of Bucharest. It includes: old and rare books, manuscripts,

journals and serial publications, current Romanian and foreign books, iconographic, cartographic and audio-visual resources. Searching is done simply by typing a term into the search box and the results are given in the order of their relevance. The advanced search is using combined search criteria (title, author, subject, publication date) or the list of authors, subjects and date of publication. The digital collections are grouped into seven categories (communities), according to the types of documents they incorporate.
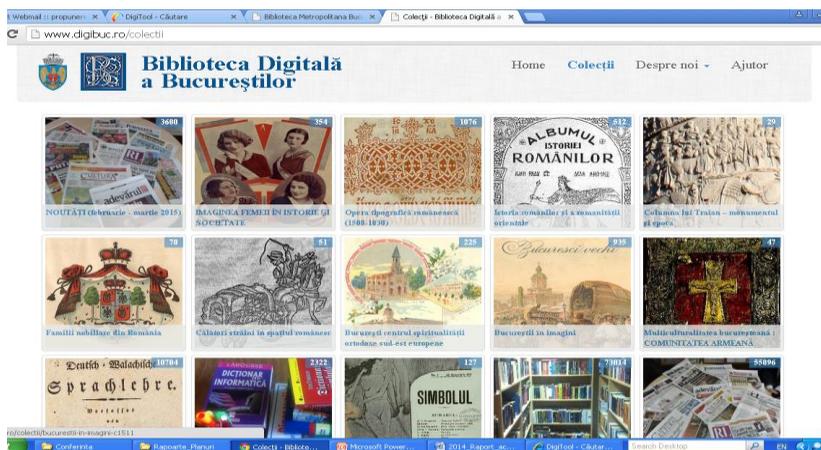

Fig. 1. Home page of the Bucharest Digital Library

The distinction of "Lucian Blaga" Central University Library of Cluj among the university libraries was marked by the moment when they became the first Romanian library with a catalogue included in EBSCO. The EBSCO Discovery Service (EDS) supports integrated searching of content from full-text databases, citation databases, and local content collections, such as library catalogs and other locally managed digital collections. Successive conversion operations enriched the library catalogue with Dublin Core Metadata Initiative (DCMI) descriptions in DSpace Xml for electronic documents.

Moreover, a number of 29 different interfaced scientific databases were integrated and then unified, while their menus were translated for an easier access. Soon after that, this became the first Romanian academic library with its catalogue integrated in WorldCat. The digital

library containing three communities – publications relevant for the history of Cluj and Transylvania, publications in high demand and others requested by and digitized for library users – was included in Europeana. A relevant detail is that all the menus are translated in four languages.

The institutional repository at "Mihai Eminescu" Central University Library of Iasi has recently been created and includes the digitized version of physical items, such as: iconographic materials, full text documents and also digital-born materials, allowing free worldwide access to the library's cultural heritage and research collections.

The categories or communities of digital objects are well defined to include special collections, books, reprints and serial publications. The information access is facilitated by several types of searches. All the new added objects are visibly indicated, so that the library users can have a clear view on what was added to the collection. Like in all the other university library front pages, the customary full text research databases like Elsevier, SCOPUS, ProQuest, Emerald etc. have a distinct place on the library's website.

"Dunarea de Jos" University of Galati is offering its library users a new digital service. It is an open source software solution called UGAL Index[8] and enables the users to search and browse beyond the resources of a traditional online public access catalog, by means of VUFind. Developed by Villanova University, the latest VUFind 6.0 version used by the Romanian library filters the search results by facets, provides the "live" location of the searched bibliographic material and recommends similar resources. VUFind is used as standalone server and finds bibliographic data originating from three external sources: 1) Arthra Digital Repository, using DSpace open source software, 2) the online catalogue of the library via Koha open source integrated library system and 3) UGAL Journals, a scholarly journal platform, built by means of Open Journal Systems (OJS), a journal management and publishing system developed by the Public Knowledge Project (PKP), through its federally funded efforts to expand and improve access to research[9]. The UGAL Index enables simple/advanced searching and browsing and also filters the retrieved results.

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[8] Lenuța Ursachi, Liviu Petcu, Mioara Voncilă, *Portalul UGAL Index, o nouă solutie software open source dezvoltată la Universitatea „Dunărea de Jos" Galati.* (https://kosson.ro/prezentari/31-proiecte/1228-portalul-ugal-index-open-source accessed 12.11. 2019).
[9] https://pkp.sfu.ca/ojs/ (accessed 20.11. 2019).

V. Digital libraries – an advantage for disabled people

A topic of concern connected with libraries is that 15% of the world population suffer from some kind of disability. Access to digital libraries for disabled people holds the attention of The Accessible Books Consortium (ABC) [10] , a public-private partnership that includes organizations representing people with print disabilities: the World Blind Union (WBU), libraries for the blind, standards bodies and organizations representing authors, publishers and collective management organizations. The main aim of ABC is to increase the number of books worldwide in accessible formats – such as braille, audio, e-text, large print – and make them available to people who are blind, have low vision or are otherwise print disabled. The inclusiveness policy is part of the objectives of libraries in quest for diversification of their services and a great concern of the European Union (Art. 26 of the European Union Charter of Fundamental Rights).

"The Sound of Pages"[11] is the largest digital library for the blind in Romania. Adriana Borună (2015), Head of the Institutional Development Department at the National Library of Romania said: "Library users with vision deficiencies are granted access to the digital library both off-line, from the library building and online, from whatever place in the country, based on ID and password, so that the copyright protection law is observed."

The project needs special software, such as screen magnifiers, special scanners and readers, Braille printers and Digital Talking Books (DTB). It is about interaction, communication, inclusiveness and co-working. At the same time it is an exceptional opportunity for people with vision deficiencies to fully take part in the social life of the community.

VI. Digital librarians

It is understandable that, under the circumstances of newly emerged library services, new qualifications and competences, but also new responsibilities are demanded from librarians. A large amount of

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[10] https://www.accessiblebooksconsortium.org/portal/en/index.html (accessed 11.11 .2019)

[11] https://www.prostemcell.ro/social/sunetul-paginilor-biblioteca-digitala-pentru-neva zatori.html (accessed 11.11.2019).

literature dealing with this subject is available. On the average, as Ohaji (2010) states, "the generic responsibility of a digital librarian is to create and maintain the digital collections and services". He cites Sreenivasulu (2000), who identifies the digital librarian's responsibilities:

- Manage the digital libraries;
- Organize digital knowledge and information;
- Disseminate digital information from the computer-held information;
- Provide digital reference services and electronic information services;
- Provide knowledge mining from the emerging knowledge warehouses;
- Handle the tasks of massive digitization, digital storage process, and digital preservation;
- Provide universal access and retrieval of digital knowledge, ultimately access to all;
- Catalogue and classify digital documents and digital knowledge.

The high professional skills demanded from digital librarians require also a set of personal competencies and qualifications as mentioned by Ohaji: flexibility, ability to multitask, oral and written communication skills, membership to professional library organizations, experience using web 2.0 technologies, a permanent aspiration to update and develop their professional knowledge.

VII. Conclusions

As it clearly results from this paper, librarians are agents of change in modern libraries through: innovation, creativity, re-thinking the library's functions and re-defining their spaces according to community needs. But it takes initiatives, strategies and best practice to start projects and integrate them in larger, sustainable structures. Librarians, particularly those from public libraries, need to find resources and start their new activities based on community needs and interests.

Digital libraries offer a strong and valuable support to education and research from a variety of fields, governing and health services being

included. In order to make them work properly, new skills, competencies and qualifications are demanded from librarians.

Not only individual libraries and librarians, but library associations too, are called to give appropriate responses to the challenges of the community information needs. They add value to the new library services by advocating for them at a higher integrated institutional level. Therefore, professional partnerships and cooperation programs among libraries act more effectively for joint local or international projects.

Digital libraries have a crucial contribution to building user communities by providing relevant information in multiple forms. But, in order to reach that objective, they inevitably need highly qualified human resources. Graduating librarianship or any related discipline is no longer a grant, nor is it the final step to a lifetime career, but "a beginning – a foundation upon which someone builds over the long course of a career with constant learning and retooling" (Tennant, 2009).

As Sreenivasulu (2000) points out, the digital librarian has his/her own interface functions, roles, skills and competencies for the management of digital information systems in the important areas of imaging technologies, optical character recognition, markup languages, cataloguing, metadata, multimedia indexing and database technology, user interface design, programming, and Web technology. These are areas of competence that can only be acquired through lifelong learning and steady personal upgrading.

The undeniable advantages of digital libraries, of their rapid growth in number, size and diversity, of the facilities granted by the holders of such collections, allowing easy, if not open, access to the information in them, are shaded by certain drawbacks that can hardly be overcome. One of such drawback is *overlapping* situation, which entails double expenses and human resources used in digital documents' processing and dissemination. This can only be avoided by a well-articulated and efficient institutional collaboration. The result can be shaped up in a national portal of libraries holding institutional repositories.

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