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WBIMLC 2019

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Freedom, Accuracy and Truth

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CONTENTS

Introduction	7
Keynote and Guest Speakers	9
Melius Weideman	
<i>Digital Library Design: Forget the Technicalities-Serve the Crawler and the User! ...</i>	13
Jagtar Singh	
<i>Media and Information Literacy for Lifelong Learning and Good Governance</i>	21
Dilara Begum	
<i>Menstrual Literacy: Raising Awareness from Girlhood to Womanhood.....</i>	25
Melius Weideman	
<i>Digital Library Design for Visibility: A Case Study on University Digital Libraries....</i>	35
Ane Landøy, Angela Repanovici	
<i>Academic Library Development Projects as Tools in Designing Pedagogical Approach in Information Literacy</i>	47
Mohammad Fakhrul Islam, Tania Akter, Ratko Knezevic	
<i>The Role of MOOCs in Achieving the Sustainable Development Goal Four.....</i>	53
Tolga Medeni, Tunç Medeni, Demet Soylu	
<i>Blockchain: Its Meaning and Value for Information and Library Sciences.....</i>	67
Judith Mavodza	
<i>Truth and Accuracy in Newspaper Archives: Comment on UAE History Sources</i>	71
Merve Yavuzdemir	
<i>Contribution of Information Literacy Education to Public Cohesion of Syrian Immigrant in Public Libraries</i>	77
Erdinç Alaca, Demet Soylu, Tunç Meden	
<i>Citizen-Centered Smart Practices in Public Libraries in Turkey</i>	89
Ane Landøy, Gunnstein Akselberg	
<i>Integrating Information Literacy into the Curriculum.....</i>	107
Pero Šobot, Tatjana Žnidarec, Romana Muhvič Šumandl	
<i>COBISS for all generations – Project of integrating school libraries into COBISS.....</i>	115
Mohammad M. AlHamad	
<i>Utilization of Altmetrics as a Measure of Trust of Archival Data</i>	125
Boško M. Branković	
<i>Information Literacy in the Science of History.....</i>	129

Tunç Medeni, Demet Soylu, Claudia Ferreira, Ratko Knezevic	
<i>Examples from EduCitizens Project SMART Cases and Suggestions of Technological Aspects to Address Gender Equality and non-Discrimination for Development and Engagement of Women</i>	135
Walid Ghali	
<i>Knowledge management in a challenging Middle East publishing setting – The role of Muslim Civilizations Abstracts (MCA) Project</i>	143
Yakup Özsaraç	
<i>Foundation Archive and Endowments</i>	153
Mary Sengati-Zimba	
<i>Information Literacy Needs of Faculty: A Case of One University in the Middle East</i>	161

Introduction

The Western Balkan Information and Media Literacy Conference is supported, inspired by and dedicated to the work and achievements of European Union Capacity Building in the Field of Higher Education (CBHE) project 561987 *Library Network Support Services (LNSS): modernizing libraries in Western Balkan countries through staff development and reforming library services*, as a sustainability of the project. This is a unique, pioneering European Union funded project which aims to reinforce and modernize libraries and improve the level of competencies and skills of library staff in the Western Balkan countries by developing innovative libraries as a support to education and lifelong learning.

CBHE is the European Union's program which aims to support the modernization, accessibility and internationalization of higher education in the Partner Countries in regions such as Eastern Europe, Central Asia, the Western Balkans and the Mediterranean region, mainly through university cooperation projects. The wider objective of the LNSS project is to reinforce and modernize libraries and improve the level of competencies and skills of library staff in the Higher Education Institutions (HEI's) and in Society by developing innovative libraries as a support to education and lifelong learning. The specific objectives of the project are to implement English for Specific Purposes (Libraries & library terminology) training for all target groups; to undertake in depth training needs detection and assessment with competency mapping; to implement an innovative Train the Trainers program as part of an LNSS Curriculum incorporating a suite of quality, relevant and modern library staff development modules addressing the most urgent training needs of 21st century librarians and library staff in the InformationAge.

The project will develop and implement IL and Research Skills training programs in libraries and in HEI's to help learners identify, locate, evaluate, and effectively and ethically use information in their daily lives for lifelong learning and the Knowledge Economy. Other key objectives are to hold Library Training Seminars and Workshops involving all Stakeholders for exchange of experience to improve the competencies and skills of Librarians. Strategic planning issues are also addressed such as the development of a Consortium Strategic Plan for the effective future development of libraries in both Regions and to implement this plan. The project will also develop initiatives to ensure access to and democratization of libraries for people with disabilities. Development of Frameworks for Library Collection Development Policy to meet the needs of academic staff and students in each Institute/University in the project are also a key goal. There were more projects that derived from this action such as *LNSS in Armenia, Moldova and Belarus* <https://lnss-projects.eu/amb/>, as well as *DIREKT-Project* developing trans-regional IL for lifelong learning and the knowledge economy in Europe and Asia <https://direkt-cbhe.com/>.

The Conference takes its inspiration also from previous European Union projects such as Tempus Project 517117 *Developing information literacy for lifelong learning and knowledge economy in Western Balkan countries*. This was a unique, pioneering European Union funded project which developed information literacy for lifelong learning in the Western Balkans during the period 2011-2015. The Western Balkan Information and Media Literacy Conference is now listed among the most important Information Literacy Conferences of the World. At this year WBIMLC has attracted delegates from all over the world. Apart from the representatives coming from Bosnia and Herzegovina there will be delegates for example from Egypt, India, Ireland, South African Republic, Norway, Greece, Slovenia, Croatia, Serbia, Turkey, Saudi Arabia, United Arab Emirates, Bangladesh, Pakistan, Iraq, Finland, United Kingdom, USA etc.

As a result of the involvement of leading international experts in the IL field in WBIMLC, the concept of Information Literacy which prior to WBIMLC was almost completely unknown in the Western Balkan region has firmly taken hold and is now embedded in many universities in the Region.

This conference presents Conference papers in two sections. First presented are those papers by the keynote and guest speakers. Later in the proceedings are the papers of those representatives from many other parts of the world who recognise that the Western Balkans due largely to the

work of this CBHE project and previous projects is now becoming an important centre and champion of information literacy globally.

The conference emphasises the positive influence of European Union funding programmes in regions such as the Western Balkans in accelerating strategic engagement with IL in the region making Information literacy a high priority for both educators and learners in the Western Balkans into the future.

We must be mindful also that Information Literacy is no longer a university or even library centric phenomenon as commentators such as Paul Zurkowski have already proposed. Now a more universal approach is needed across all sectors and affecting all citizens and Society in general. This has recently been highlighted by the Chartered Institute of Library and Information Professionals (CILIP) in the UK and their high level definition of Information Literacy which has recently been launched (April 2018):

Information Literacy is the ability to think critically and make balanced judgments about any information we find and use. It empowers us as citizens to reach and express informed views and to engage fully with Society CILIP 2018, available:
<https://infolit.org.uk/new-il-definition/>

WBIMLC 2019 celebrates the clear enthusiasm and passion of IL enthusiasts not only in the Western Balkans but on the international level. Given the topic of this year's Conference, *Freedom, Accuracy and Truth* WBIMLC 2019 also highlights the relevance of Information Literacy in today's world.

Information Literacy can be a very convincing *antidote* to these complex issues. IL can help us decipher whether information is accurate and trustful, enables us to look at who's behind the information, how they operate, what motives they might have. IL helps us to be free when rejecting or accepting it.

Getting to the truth with Information Literacy.

Editorial Board WBIMLC2019

KEYNOTE SPEAKERS

Over the years, WBIMLC has been honored to have some of the foremost authorities in the IL field as Keynote Speakers. This year we will host an elite selected scholars in the field:

Jane Secker



Jane Secker is Senior Lecturer in Educational Development at the City University of London which she is Deputy Director of the MA in Academic Practice. She is module leader for the Technology Enhanced Learning module and launched a new module in October 2018 on Digital Literacies and Open Practice. She was Copyright and Digital Literacy Advisor at London School of Economics and Political Science for over 15 years where she advised staff about copyright issues and the online environment. She is Chair of the CILIP Information Literacy Group and a co-founder of LILAC (Librarians' Information Literacy Annual Conference). She is a co-author of several books including Rethinking Information Literacy (jointly authored with Emma Coonan and published in 2013 by Facet) and copyright and E-learning: a guide for practitioners (co-authored with Chris Morrisson) published by Facet in 2016. Jane is a Fellow of the Higher Education Academy and a Fellow of the Royal Society of Arts. She has a PhD from the Aberystwyth University and has worked on numerous research projects funded by the British Library, JISC and the University of London.

Ismail Serageldin



Dr Ismail Serageldin, Emeritus Librarian of Alexandria and the Founding Director of the Bibliotheca Alexandrina (BA), the new Library of Alexandria in Egypt, which he headed from its inauguration in 2002 to his retirement in 2017. He serves on many boards and advisory committees for various international institutions. A graduate of Cairo and Harvard (PhD) he has held many important international positions, including Vice President of the World Bank (1992-2000), and professor at the Collège de France, Paris,(2010-2011). He has published over 100 books and monographs and over 500 papers on a wide range of topics, and has received over 36 honorary doctorates. He is a member of many academies and has been decorated by Chile, Japan, Azerbaijan and other countries and has received the Legion d'Honneur from France and is a Commander of the order of Arts and Letters of the French Republic.

Tefko Saracevic



Dr Tefko Saracevic, Professor Emeritus at Rutgers School of Communication and Information, USA. Studied electrical engineering at the University of Zagreb, Croatia; completed Master (1962) and PhD. (1970) studies in information science at Case Western Reserve University, Cleveland, Ohio, USA. He stayed at Case till 1985, when moved to Rutgers. He was promoted to Distinguished Professor in 1991, and he is Professor Emeritus since 2010. DR. Saracevic presented papers at international meetings in 48 countries. He was the president of the American Society for Information Science; received the Society's Award of Merit (the highest award given by the Society). Also, he received the Gerard Salton Award for Excellence in Research, by the Special Interest Group on Information Retrieval, Association for Computing Machinery (also the highest award given by the Group). As of December 2018, he has received 4,858 citations in Scopus database (the largest abstract and citation database of scientific journals, books, and conference proceedings; excludes self-citations). In Google Scholar (with a broader coverage of all kinds of documents in addition to journals) he received 13,504 citations.

Melius Weideman



Dr Melius Weideman is the founder and leader of WARC - the Website Attributes Research Centre at CPUT (Cape Peninsula University of Technology) in Cape Town, South African Republic. After working in the electronics and computer industry, he joined the academy in 1984. His research interests were initially focused on computer viruses, but after 1994 the Internet, and specifically search engines started fascinating him. He graduated with a Doctorate in Information Science from the University of Cape Town in 2001 and had managed to find a way to assist students in finding study-related materials easily through the correct application of search engine technology. Numerous of his publications have seen the light since then on topics including website visibility, website usability, search engines, and information retrieval. During 2007 he was chosen from 40 international applicants to become the first Fellow at the Munich University of Applied Sciences. In mid-2008 he spent three months teaching at this university. Campus02, in Graz, Austria invited him to do two workshop series on Internet Marketing through Websites in 2008. He also spent three months at MUNI in Brno, Czech Republic,

(2012/2013) on an Erasmus Mundus Scholarship. He was appointed as an Associate Professor in 2004 and a full Professor at CPUT in 2008. He is an NRF rated researcher.

Jagtar Singh



Dr Jagtar Singh is serving as Professor of Library and Information Science as well as Professor In-charge of Punjabi University Library, Patiala. He has his masters in English Literature and PhD in Library and Information Science. He has 35 years of teaching and research experience and has visited 25 countries on various academic assignments. He has many awards and honours to his credit including the Commonwealth Academic Staff Fellowship in the UK, 1992-93. He has contributed more than 100 papers and 10 authored and edited books. He has served as Lead Editor for the UNESCO's Media and Information Literacy and Intercultural Dialogue - MILID Yearbooks 2015 and 2016, respectively. He has worked jointly with Alton Grizzle, Programme Specialist, UNESCO to develop Five Laws of Media and Information Literacy, now adopted by UNESCO. He has contributed to the development of IFLA-International Federation of Library Associations and Institutions' Empowering 8 Model of Information Literacy, and also developed the HIL-Health Informational Literacy Model. He is content creator and Mentor for the Bill & Melinda Gates Foundation's International Network of Emerging Library Innovators-INELI India Programme being implemented by the M. S. Swaminathan Research Foundation (MSSRF), Chennai. His areas of interest include media and information literacy, knowledge organization, open access, LIS education, research and training, and information ethics and aesthetics. He can be contacted at: jagtardeep@gmail.com

GUEST SPEAKER

Dilara Begum



Dr Dilara Begum is Associate Professor and Chairperson of Information Studies and Library Management department and Librarian (Acting) at East West University. She has completed her B.A (Hons.) and M.A from University of Dhaka and Ph. D. from Punjabi University Patiala, India. She was a former fellow of IFLA, ALP (Victoria University of Wellington, New Zealand). She has more than 18 years of experiences in research, teaching, and information management. Her research interest includes information management, digital library, information literacy etc. She served as a Full-Time Faculty at Maldives National University, Male, Maldives in 2011. She is acting as elected Secretary of Information Literacy Section of International Federation of Library Associations and Institutions (IFLA). She is also acting as General Secretary, Digital Library Network of South Asia (DLNetSA). Beside these, she has served in numerous significant and diversified roles including Country Coordinator of Information Literacy Consortium sponsored by UNESCO, Standing Committee Member of ECIL since 2013 to till now to organize the European Conference of Information literacy, elected Senior Vice President and Women Affairs Secretary of Library Association of Bangladesh (LAB) from 2009-2014, Acting President of Library Association of Bangladesh in 2012. She has more than thirty five (35) national and international publications. She had opportunity to visit more than 26 countries for academic research and professional purposes as well as international conferences. She was invited by the U.S. Department of State's Bureau of Educational and Cultural Affairs' (ECA) premier professional exchange program as foreign leader and scholar to attend the International Visitor Leadership Program (IVLP) for meeting American colleagues and become better acquainted with the United States, its culture, and its people. Recently, she has been awarded the prestigious, "Prof. Indira Parikh 50 Women in Education Leaders" in recognition of her contribution to her own sector nationally and internationally. She is considered one of the pioneers of Digital Library development in Bangladesh as well as an international expert on the mentioned fields.

DIGITAL LIBRARY DESIGN: FORGET THE TECHNICALITIES-SERVE THE CRAWLER AND THE USER!

Plenary Presentation

Melius Weideman

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ABSTRACT

Many universities host a digital library, often storing copies of master's and/or doctoral theses from graduates at that university in it. Sometimes other academic research documents, like published journal articles and conference papers, are also included. Normally, the university wants the contents of this digital library to be easily accessible through search engines, to ensure wide dissemination of these outputs. Also, once a user finds the digital library, the owners want it to be easy to use, to ensure many returning information seekers.

A literature survey was done, and it was found that in some cases, university digital libraries were not visible to search engines, and in others they were not easy to use. A number of university digital libraries were used as a sample, and an inspection was made of these digital libraries.

It was found that often the theses were stored as separate files instead of one (PDF) document, and in others many documents were not accessible to search engine crawlers. In some cases, digital libraries were hidden behind a login, meaning the search engine crawlers cannot get to the documents to index them. Also, some PDF documents were stored as images instead of searchable text, again meaning that a crawler cannot read and interpret the text inside the document. Filenames were non-sensical, and meta-data was often not added to the base documents. Some of these digital libraries were difficult to use, with complex menu structures and a lack of calls-to-action.

In conclusion, there are relatively easy ways to improve the visibility and usability of a digital library. Any designer working on a university digital library should consider the basics of search engine optimisation and usability design in the creation of the digital library.

Key words: digital library, website content, search engine, information retrieval

1. INTRODUCTION

1.1. Background

Most universities the world over have a bricks-and-mortar library, serving staff and students with (mostly) hard-copy books and other materials. Some of these also host a DL (Digital Library) as a supplementary service.

Most users of any one of these library services expect to be served with an answer to their information need – it could be a book, an electronic document or any other form of information.

In the case of a DL, it is often assumed that a user will start using the DL by viewing the DL homepage, then clicking through the menus, in the process “drilling down” until they find the required information. Alternatively, a “Search” box is often presented, where users can shorten the process by typing in a search query, hopefully finding what they need in a different way. This is equivalent to the early versions of Yahoo!, where users could use the drill-down approach, by successively clicking on different category headings, until they satisfy their information need. Or, they could use the “Search” box and type in a query.

While the drill-down approach takes slightly longer, the search method relies heavily on the ability of the searcher to specify an efficient search query. Previous research has proven that the success rate of search-by-query is rather low – figures of around 30% have been noted (Fan *et al* 2018; Wirth *et al* 2016; Weideman 2001).

Regardless of this low figure, it seems that search-by-query has become very popular, and most modern search engines offer only this method of searching.

However, it should be noted that the assumption that users will all start looking for information in a DL starting at the homepage, is seldom correct. With modern search engines, the answers

served on the SERPs (Search Engine Result Pages) are often webpage addresses of pages which are not a website's homepage, but another webpage further down in the website hierarchy. This factor was fundamental in this research project.

1.2. The Perfect Website

Depending on who one asks, there could be many definitions of "a good website", or even "the perfect website". To the financial manager, a website qualifies for this title if it was done cheaply and quickly. To an engineer, it could be if the website was delivered "on spec, on budget and on time", like a civil engineering project (i.e. a new bridge built). To a Web designer, it could be if the website was designed using the latest design technologies and languages.

However, this author would like to postulate that the perfect website is one which serves its two audiences (the human visitor and the search engine crawler) best. That is, a website which has a high degree of website usability and website visibility.

If a website is easy to find through a search engine, and easy to use once the human visits it, nothing else really matters at that point – not the cost, not the time it took to design, not the platform used to design it, etc.

In a sense, using a website could be "an emotional experience" – one often experiences satisfaction if information is easily found, or a transaction is completed quickly. Or the human user can experience frustration if unclear error messages prevent him/her from completing a task, or if navigation systems make it difficult to know where to go next. In contrast, driving over a newly built bridge is unlikely to evoke the same kind of emotions in a human.

1.3. Research Questions

1.3.1 How visible are academic documents, stored in a university DL, to search engine crawlers?

1.3.2 How easy are university DLs to use?

1.4. Research Problem

DLs are often designed in such a way that they are unfriendly to the human user and/or the documents stored in it are difficult to find through a search engine (Arlitsch *et al* 2013; Onaifoet *et al* 2013; Weideman 2010a; Weideman 2010b).

2. LITERATURE REVIEW

2.1. University Digital Libraries

The DL of a typical university could be used to store not only post-graduate theses awarded by that university, but often also any other research publications emanating from that university: journal articles, conference papers, book chapters, conference posters, etc.

Numerous case studies have been done on the DL of a specific university or country, often relating the way it was designed, how successful it was, and other factors (Zhou *et al* 2019; Finley 2018; Wang *et al* 2016; Johnston 2004).

In many cases, DLs sat behind a login, expecting users to have a university username and password before being allowed to view the contents of the DL (Weideman 2019a). This presents a problem to search engine crawlers, since they cannot type in this information, preventing them from viewing and indexing the information inside the DL. It is debatable whether it is a wise decision to require a login for a DL, since it reduces the visibility of the documents stored in the DL to zero.

Designing a DL is similar to designing any other large, database-based website – it has to be done after careful planning. Again, there are numerous academic studies done on this process for DLs (Raza 2019; Van Do *et al* 2019; Chaputula *et al* 2018; Khan *et al* 2018; Rahrovaniet *et al* 2018). However, none of these studies refer to the value of designing a DL to be usable and visible at the same time.

It is this author's opinion that this is a serious deviation from "best practice", which stipulates that a website should be designed to satisfy its two audiences, as noted above.

2.2. Information Retrieval

IR (Information Retrieval) is a topic much older than the Internet itself, since humans have been trying to find ways to effectively retrieve stored information for centuries.

In fact, the Sumerians of the third millennium are credited with some of the first work on IR, where they tried to find efficient ways of extracting information stored on clay tablets (Weideman 2001). Looking at more recent developments, finding information stored in some form of electronic media was a challenge even before the birth of the Internet. The use of search engines to extract information stored in an unknown location actually predates the Internet itself – the first search engine (Archie) was released around 1990 – four years before the Internet's birth (Vanberg 2012; Seymour *et al* 2011).

Many earlier studies investigated some aspects of IR:

- An early study was done on semantic searching in DLs as a D-Space case study (Koutsomitropoulos 2015)
- Another study investigated the relationship between research into classification science and IR (Miksa 2017).
- A more recent study considered some models for information interaction in the IR context (Savolainen 2018).
- And, more recently, a study was done on digital preservation practice (Anyaokuet *al* 2019).

It is clear that mankind is still learning more about IR in general, and IR remains an important issue in the study of DLs.

2.3. Search Engines

2.3.1. Leaders

It is generally accepted that Google, Bing and Yahoo! are the three leaders in search in the Western world (Anonymous 2019; Weideman 2009). However, if a global picture is required, one must include the Chinese (Baidu) and Russian offerings (Yandex). And a latecomer is Duckduckgo, with the claim that no private information of searchers is collected (Weideman 2019b).

If any website owner wants his/her website to be indexed and shown on a SERP, they should consider the six big search engines mentioned above, and their requirements for SEO.

2.3.2 Prior Research - General

Again, research papers on search engines and related matters abound:

- A recent study was done on the wisdom of choosing different search engines, based on relevance judgements (Sünkleret *al* 2017).
- Work has been done on efficient search queries to be used when searching for electronic theses and dissertations (Coates 2014).
- A study was done on the value of academic content on the Web and making it more visible to crawlers (Weideman 2012).
- An early study considered the use of search engines in Information Science research (Bar-Ilan 2004).

2.3.3 Prior Research – SEO (Search Engine Optimization)

Many studies have been done on SEO in general, and as applicable to DLs (Weideman 2019a; Weideman 2018; Marks *et al* 2016; Marsh 2015; Scott 2015; Arlitsch et al 2013; Onaifo et al

2013; Weideman 2010a, Weideman 2010b). All of them highlight the importance of doing basic SEO on any website where high rankings on SERPs is important.

3. DL DESIGN

3.1. Identifying University DLs

A list of DLs from the worlds' top universities was selected, and each one's DL was identified and used for the IR of Ph.D. theses in PDF format (Weideman 2019a; Weideman 2010a; Weideman 2010b).

A number of tests were done on these DLs, in an attempt to determine their levels of website visibility and usability.

3.2 DL Visibility

It was found that:

- 3.2.1 Different query generation methods delivered different results. Using the first five non-keywords from the title of the thesis seemed to consistently deliver better results (higher rankings).
- 3.2.2 In 61% of the tests, the Ph.D. thesis being searched for, was not listed in the top 10 results.
- 3.2.3 In other similar tests, it was found that the PDF documents were stored as separate chapters, which would dilute the SEO value and the chances of finding these documents.
- 3.2.4 Those DLs sitting behind a login, are completely isolated from search engine crawlers, and their content will not be indexed.
- 3.2.5 Some PDF thesis documents were also stored as images instead of searchable files, which again make sit impossible for the crawler to index these files, even if they are found in the DL.
- 3.2.6 Basic SEO guidelines were not followed in many cases, further leading to problems with indexing (non-sensical HTML filenames, missing basic meta-data).

These results indicate that the DLs in question has a low visibility of the PDF documents stored in them.

One must consider the fact that the typical research publication is ideal for SEO – it normally contains a large number of very specific, meaningful phrases, and difficult to spell words, which should make it easy to find that document through a search engine. This is especially true for papers on medical, engineering and scientific topics.

Table 1: Digital Library Usability test results

NO.	UNIVERSITY	DL Landing page	Why was a thesis not downloaded?	Ease of use (0=Very easy and clear, 9=very difficult to find and use)
1	Stanford	https://searchworks.stanford.edu/catalog	Seems that user can only access copies of thesis after login	8
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3	MIT	https://dspace.mit.edu/handle/1721.1/5582		7
4	Oxford	https://www.bodleian.ox.ac.uk/bodley	Seems that user can only access copies of thesis after login	8
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6	CoffTech	https://thesis.library.caltech.edu/		7
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8	Princeton	https://dataspace.princeton.edu/jspui/handle/8843/5d9019c072w8fbm	Only possible once registered and requested user to send user an copy of thesis, or by logging in	5
9	Vale	http://discover.vale.vt.edu/vale/		8
10	Chicago	https://shibboleth2.uschicago.edu/ida/profiles/LAME_2_PORTAL?GSessionId=14nch7z7k7v54y84s4st&authn_expiration=151	Seems that user can only access copies of thesis after login	6
11	Calgary			
20	UW Washington			
21	Nanyang Technical University, Singapore	https://www.ntu.edu.sg/Pages/home.aspx	Could not find a DL	5
22	Univ. of Tokyo, Japan			
23	Un. Washington, Seattle			
24	The Australian National University	https://openresearch.anu.edu.au/handle/1885/2	Seems that user can only access copies of thesis after login	5

3.3 DL Usability

Usability is an old research topic, and the publications of especially Nielsen and Krug cover all the basics. Lately, many studies have been done on usability in general, and as applicable specifically to DLs (Guayet *et al* 2019; Inal 2018; Kautonenet *et al* 2018; Sheikh 2017).

In some recent experiments on top university DLs (Weideman 2019a), it was found that many of these DLs were difficult to navigate – see Table 1.

4 CONCLUSION AND RECOMMENDATIONS

In summary, the following conclusions and recommendations can be made:

- 4.1 All DLs (in fact, all websites) should be easy to find and easy to use.
- 4.2 For website visibility, apply the basic guidelines for SEO to all webpages (Weideman 2009).

Figure 1: Example of a bare-bones HTML page

Keyword stuffing and the big three search engines

Zuze, H. & Weideman, M.

Online Information Review, Vol. 37 Iss: 2, pp.268 - 286.

Zuze, H. & Weideman, M. 2013. Keyword stuffing and the big three search engines, Online Information Review, Vol. 37 Iss: 2, pp.268 - 286.

ABSTRACT

Purpose The purpose of this research project was to determine how the three biggest search engines interpret keyword stuffing as a negative interpretation of keyword stuffing. Five websites with varying keyword densities were designed and submitted to Google, Yahoo! and Bing. **Tv** keyword density measurements in the body text of a webpage. During both phases, almost all the test webpages, including the one with a 97.3% high keyword densities will lead to blacklisting have been refuted. **Originality/value** Websites should be designed with high quality, well-written

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- 4.3 Consider creating a single text-only webpage (a “bare-bones HTML” webpage), containing all the titles and author names of each thesis in the DL. Also provide a link to each full-text PDF file in the DL (see Figure 1).
- 4.4 Also provide SEO friendly: filenames, meta-data, text, ALT tags and body text.
- 4.5 For website usability, apply the basics as provided by Nielsen and Krug.

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MEDIA AND INFORMATION LITERACY FOR LIFELONG LEARNING AND GOOD GOVERNANCE

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ABSTRACT

Education is a one time process but learning is a lifelong process. But all is not well with education and learning in India. Students are not allowed to exercise choice, hence their inbuilt potential remains suppressed in majority of the cases. Value-based practice-oriented education here is a myth and not a reality. Since education is highly theoretical; knowledge, practice, personality development and positive thinking like learning outcomes of education remain a distant dream. Media and information literacy, being promoted by UNESCO as composite concept, can go a long way to develop critical thinking and independent lifelong learning among information seekers to enable them to ensure good governance based on transparency, accountability and rule of law. Hence, an effort is made in this paper to build a case for promoting MIL across frontiers to ensure good governance, rule of law, intercultural dialogue and peaceful co-existence.

Key words: Media and Information Literacy; Lifelong Learning; Good Governance; Sustainable Development; Social media; Peaceful Co-existence.

1. INTRODUCTION

If we look around today, we find the world is surrounded by many gaps and divides. There is a gap between and within the nations and institutions, between tacit knowledge and explicit knowledge, between theory and practice, between the competent and the incompetent. Similarly, there are many divides, such as the divide between the rich and the poor, the rural and the urban residents, and the elite and non-elite. All these gaps and divides are potential perils for the sustainable development of nations worldwide. But among these, the capacity gap is the biggest gap. In information economy, it can be bridged only by equipping the information seekers with media and information literacy skills. The art of accessing and processing information has seen many vicissitudes. In the library users' context, it started with library orientation and moved to media and information literacy through library instruction, bibliographic instruction, user education and information literacy. Nowadays, media and information literacy (MIL) is being promoted as a composite concept by UNESCO through its Global Alliance for Partnerships on media and Information Literacy (GAPMIL), and the Media and Information Literacy and Intercultural Dialogue- MILID UNITWIN. In fact, media and information literacy can go a long way to enhance awareness and understanding of people about motive of the corporate sector that is programming human minds in the name of globalization. In this hegemonic environment, at stake is the culture of local communities and freedom and independence of the marginalized sections of the society. It is a well known fact that media is controlled by corporate sector, politicians and the respective governments. Hence media is overloading the masses with fake news most of the time because of their hidden motive. In this context, MIL can play a pivotal role to develop critical thinking and independent learning among people at the grass root level. This paper presents the author's perspective as to how MIL can empower people to ensure lifelong learning, good governance and sustainable development.

2. MIL AS A HUMAN RIGHT

After food, clothing and shelter, information has become fourth human need. Hence the concept and practice of media and information literacy must be promoted as a basic human right to serve human needs of information seekers. It is firm belief of UNESCO that MIL empowers citizens, including children and youth, with competencies related to media, information, ITC and other

aspects of literacy which are needed for 21st century. In India, the Right to Information (RTI) Act has enhanced information seekers' assertiveness, and the government officials, bureaucrats and politicians are also scared making wrong decisions by using their discretion. Discrimination and discretion always promote corruption and MIL and RTI Act have the capacity to work as an antidote to corruption and discretion.. Hence MIL must be promoted as a human right to empower people across frontiers. Moreover, MIL is necessary to build capacity of people for efficient and effective use of social media. Sometimes social media is being used to spread false news and manipulate public opinion. Though social media is emerging as a counter narrative to the commercial media, yet MIL instruction is needed to lead its promises and perils into the socially desirable direction.

3. EDUCATION AND LEARNING

The basic purpose of education is to realize the inbuilt potential of students to make them wealth of society at large. Listening, reading, writing and observation are basic modes of learning. The ultimate purpose of education is to put one's learning to practice. But unfortunately, value-based education is missing. Hence, there is a lot of conflict in a pluralistic country like India. We must look beyond literacy and focus on learning outcome-based education. Value based education can lead to a conflict free society and peaceful co-existence. In fact, instead of logic, arguments and discretion; good feelings should fire our imagination for harmonious living. People must have positive thinking, noble feelings, and enduring ethics and aesthetics. MIL can build such capacity among people. Hence sustainable MIL policies and strategies must be adopted by all governments and other bodies at all levels and across frontiers. Education must lead people and governments into the right direction, and learning must focus peoples' attention on putting knowledge to work.

4. KNOWLEDGE AND WISDOM

Addressing the lack of direction, T.S.Eliot has very rightly said in his poem The Rock:

Where is the Life we have lost in living?

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?

Actually, there is an immediate need to clear the confusion between knowledge and information. Information is highly temporal and varies from person to person, place to place and time to time. Information is useful only in decision making and eliminating uncertainty, whereas knowledge resides in the heads of people and is used in problem solving. For both decision making and problem solving, one needs accurate information and trustworthy competence. MIL can be very useful here as well to ensure freedom of people from provoking boundaries and misconceptions. In fact, reality is temporary and truth is ultimate. People must realize this truth that media has its motive and many a time misinforms the people. But MIL equips people with evaluative skills to find out truth behind the stories being promoted by the media to please their masters.

5. INFORMATION AND DECISION MAKING

Quality of decision making depends on quality of information. MIL can equip people with evaluative skills to judge quality of information and make sustainable decisions. As has been said in the beginning of this paper that there are many gaps and divides. The divide between the 'information-rich' and the 'information-poor' is increasing day by day. Similarly the capacity gap is also a potential danger to information democracy. MIL can enable people with searching, browsing and evaluative skills, and also sensitize them to make ethical and legal use of information in decision making. It can also empower people to force governments at different level to adopt MIL policies and strategies.

6. COMMONSENSE AND PRACTICE

Commonsense is the basic faculty needed by one and all for remaining in bliss and rhythm. But commonsense is not so common as it is inbuilt among people. But MIL can make people aware of the value of commonsense in smooth functioning and harmonious living. Practice is another essential condition to realize the Sustainable

Development Goals and ensuring a level playing field for one and all. In fact, commonsense-based practice can make nations independent, free, sustainable.

7. GOOD GOVERNANCE

Governance means decision making and decision implementation. But the quality of decisions is directly related to the motive and the quality of information available for decision making. Good governance is based on eight major parameters. These are: participation, rule of law, transparency, responsiveness, consensus, equity and inclusion, efficiency and effectiveness, and accountability. But accountability can be enforced only by transparency and rule of law. MIL can be a fruitful mechanism to make people aware of their rights and duties and enable them to keep a strict watch on governments that have tendency to use discretion and discrimination and allow corruption.

8. CONCLUSION

Media is controlled by corporate sector, politicians and governments, hence mostly misinforming the masses with fake news. In India, media is to get license from the government, therefore, has a motive to dance to the tunes of the governments in power as well as the politicians. Ordinary people are indeed framed by the purse-holders and the employers. Hence, the employees feel helpless and are always worried about their job security. This system needs be changed. For this, we need to unite and promote MIL across frontiers to facilitate lifelong learning and ensure good governance. This conference can pass a resolution or a declaration to this effect.

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MENSTRUAL LITERACY: RAISING AWARENESS FROM GIRLHOOD TO WOMANHOOD

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ABSTRACT

BACKGROUND: Although Bangladesh has produced substantial advancement in bringing down poverty and improving food security, however, the overall nutritional status is not satisfactory. Malnutrition among young children, adolescent girls and women are still prevalent. It is an eternal truth that the female is acting as a foremost impactor for the progress of any nations. They are considered as a half backbone of the nation. In this case, able-bodied female lead to make a healthy family or society and obviously the country as well. Adolescence is a point of rapid passage from girlhood to womanhood. The onset of menstruation is one of the most significant changes that occur in girls during the teenage. Most of the teenage girls in Bangladesh feel hesitant to talk about this issue with their parents. The primary purpose of this paper is to elucidate how health information professionals can make juvenile girls aware about this topic with the collaboration of community health workers.

METHOD: A systematic literature review has been conducted through giving a special focus on the actions taken by the Non-Government Organization (NGO) as well as Government Organization (GO) for the awareness of menstrual literacy. Also, the author's experiences have been incorporated into this paper.

VALUE: This paper illustrated the possibilities for the collaboration between the Health Information Professionals (HIPs) and Community Health Workers (CHWs) for promoting menstrual literacy among adolescent girls. Lastly, the article made an effort to come up with recommendations for the implication of this collaboration.

1. INTRODUCTION

From the very outset of the human creation male and female have been taking share in the process of increasing their successor/generations. Only male or only female cannot do it alone, rather, it is a collaborative effort. Nevertheless, from the ancient time to even now the discriminating attitude towards female is not fully abolished, rather, it exists in all places, socioeconomic, socio-political and social-ethnic settings.

Because of their vital role in the GDP, recently, women are not thought to be working at home merely as housewife rather, house-holder/house-keeper/house manager, etc. So, directly or indirectly, the female is acting as a foremost impactor for the progress of any nation. As a result, able-bodied female lead to make a healthy family or society and obviously country as well.

The world population is 7.5 billion now and it will hit 9.8 billion and the youth population will hit 1.4 billion by 2050 (PRB, 2017). Agreeing to the ICRW, there are currently an estimated 600 million girls in the world between the ages of 10 and 19 and adolescents as people between the ages of 10 and 24 years. It is mentionable here that adolescence is marked in girls with the onset of menstruation and is one of the most significant changes that occur in girls during the teenage. The huge bulk of these girls around 90 per cent – live in developing nations. Across the world, adolescent girls face extremely limited access to sexual and reproductive health services, which leads to an estimated 20,000 births to teen girls each day, and more than three million unsafe abortions by adolescent girls each year. Also, more than 3000 teenagers die every day, totalling 1.2 million deaths a year, from largely preventable causes (WHO, 2017) such as good health

services, training, and social reinforcement. But how many adolescent people know about preventable causes?

According to UNICEF, Bangladesh – belonging in developing countries – has seen impressive progress in health and nutrition in the last few decades. Nevertheless, most of the teen-age girls in Bangladesh feel hesitant to speak around the menstrual issue with their parents or other protectors. Even many girls are not aware of menstruation before their menarche. A substantial number of adolescent girls, especially in the rural areas, are still using unhygienic rags as they recycle them without washing and drying properly, which causes infections and eventually harms not just reproductive health but also creates different deadly diseases. Adolescent girls need a variety of information about the physiology of menstruation and its management for different situations. Though Bangladesh has been making considerable developments in reproductive health issues, the provision and promotion of menstrual literacy are in a dormant stage. Under this circumstance, Health Information Professionals (HIPs) can contribute in the promotion of national and community menstrual literacy that will assist adolescent girls for being healthy women in the future and this is very significant with regard to the Sustainable Development Goals (SDGs) as well as country reputation and achievement. Community health workers (CHWs) play a vital and unique role in linking diverse and underserved populations to health and social service system ((Spencer, Gunter & Palmisano, 2010). CHWs are Front-line public health workers who have a clear concerned about the community they serve. The collaboration between HIPs and CHWs are needed to promote menstrual literacy in Bangladesh.

2. LITERATURE REVIEW

Information literacy is essential for overall development of a country. People who want to cope with information world, online service, for obtaining relevant information quickly and effectively from different sources. It also encompasses digital literacy, media literacy, health literacy, agricultural literacy, etc. (Rani, 2014)

Health Literacy is defined in the Institute of Medicine report as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions." "Health literacy is the use of a wide range of skills that improve the ability of people to act on information in order to live healthier lives. These skills include reading, composition, listening, speaking, numeracy, and critical analysis, as well as communication and interaction skills" (the Government of Canada's Office of Literacy and Essential Skills, 2011). The Medical Library Association's (MLA's) definition is more elaborated and further defines health information literacy as "the set of powers needed to: recognize a health information need; identify potential information sources and employ them to retrieve relevant data; evaluate the quality of the information and its applicability to a specific state of affairs; and analyze, understand, and utilize the info to build sound health decisions". Thus, health information should be reliable, understandable, accessible whenever people need as well as culturally sensitive. We are living in an ocean of information. It is rather hard to find out trustworthy information from scores of junk information. Quality based information is inevitable to provide better health care to the community. Health information professionals are playing a vital role in providing accurate and reliable information to support patient care and overall country's healths performance. They are also working to provide the absolute high-quality clinical information and ensuring the availability of this information among their community. Health professionals in Bangladesh had taken into consideration the relationships between health, cognition and environmental support to reach a more advanced understanding of how to change lifestyles in recent years. This concept relates to health literacy and simple dissemination of the message, enhance people's ability to think about health behaviours, to seek and use the information and motivates people to take action to improve health (Jahan, 2000).

Community Health Workers (CHWs) are a potent force for promoting health behaviours and drawing out the scope of the health system around the globe. CHWs are a diverse category of health workers who commonly work in communities outside of fixed health facilities, have some formal, but limited, training for the tasks they are expected to perform (HB, R, & Rogers MM., 2014)

The Government of Bangladesh is constitutionally committed to supplying the basic medical requirements to all segments of people in the society and the ‘improvement of the nutritional and the public health status of the people’ (“Constitution of the People’s Republic of Bangladesh,” 1972). In the former period of Bangladesh, health care infrastructure was poor with primary care in curative service, with maternal, child and new-born health. After the 1990s with several advantages and facilities, the Bangladesh health system changed to health promotion and prevention services. Bangladesh has a well-structured health system with three tiers of Primary Health Care - Upazila Health Complex, Union Health and Family Welfare Centers and Community Clinics, these are backed by District Hospitals, Large Urban Centers for further Secondary and tertiary level care. (Islam & Biswas, 2014). The government of Bangladesh establishes Community Clinic (CC) (1 CC for about 6000 population) in 1996 to extend Primary Health Care (PHC) at the doorsteps of the villagers all over the country. Health Assistants (HA) and Family Welfare Assistants (FWA) are service providers and they trained on ESP (Essential Service Package) under the Health and Population Sector Program (HPSP). Since 2011, CCs have been performing their roles as the name of Community-Based Health Care (CBHC). According to Community Based Health Care (CBHC), at present more than 13,000 CCs are on board. Thousands of villagers, particularly poor, women & children are receiving services from the nearby CCs. Effective community engagement prevails with CC through CG, CSG & local Government representatives. The community owns CC and plays an active role in its betterment in all regards. People are satisfied with the services of CC as it is the single stop service outlet in respect of Health, Family Planning & Nutrition. In many cases, Medical Officers and Sub-Assistant Community Medical Officers (SACMO) in the Family Planning sector are visiting CCs periodically and providing services for complicated cases. All the CCs have been provided with a laptop and internet connection and have been reporting online. E-health from CC to UHC has been brought out in some spots.

3. IS MENSTRUATION CURSE OR BENISON?

“There are approximately 350 million adolescents comprising about 22% of the population in the rural areas of the South-East Asia Region (SEAR). Adolescents are not a homogenous population. They exist in a variety of circumstances and have diverse needs. The passage from childhood to adulthood involves dramatic physical, sexual, psychological and social developmental changes, all taking space at the same time. In addition to opportunities for development, this transition poses risks to their wellness and welfare” (SEAR, n.d.). Menstruation is a normal biological process and a key sign of reproductive health, yet in many cultures, it is treated as something negative, shameful or dirty.

Many researchers have drawn attention to menstruation. Cakir et al (2007) defined that the enormous physical and hormonal change for a young girl happens during adolescence. And the age of menarche is determined by general health, genetic factors, socioeconomic and nutritional status. It is typically between 12 and 13 age, but with the betterments, in the nutritional status and general health, it has worsened in many populations during the last decades (Bullough, 1981; Chowdhury et al., 2000). Rees (1995) stated that menarche occurs between the ages of 10 and 16 years in most young women in developed nations.

Most girls do not know about menstruation before their menarche. Before starting menstruation, every girl is not cognizant about it and whenever they are inserting into their puberty period, they feel that they are riding into an ocean. Even women in developing countries have misconceptions about menstrual issues and its management as well.

Menstrual problems are mostly perceived as only minor health concerns and therefore irrelevant to the public health agenda, especially for women in developing nations who may face severe conditions (Harlow and Campbell, 2000). They are sharing with several problems such as premenstrual syndrome, dysmenorrhea, menorrhagia, amenorrhea and so along. Thither is a lack of up-to-date information regarding the knowledge and attitudes of teenage young women during menstruation. Even when adolescents first face this period, they imagined that they are in big trouble or they have been bearing a serious disease as easily as they are starting to go. In this circumstance, adolescents are feeling hesitant to talk about subjects related to biology and hygiene practices with their parents.

According to WHO, globally, there are 44 births per 1,000 to girls aged 15 to 19 per year and half of all mental health disorders in adulthood start by age 14, but most cases are undetected and untreated. They too claimed that adolescents who suffer from mental health disorders that impact health later in life. (WHO, 2018).

4. SOCIAL BELIEFS ON MENSTRUATION

The continued silence around menstruation combined with limited access to information at home and in schools results in millions of women and girls having very little knowledge about what is happening to their bodies when they menstruate and how to deal with it. Besides those, social beliefs that are evident from different phenomena such as a study from UNICEF revealed that 1 out of 3 female children in South Asia knew nothing about menstruation prior to getting it while 48% of girls in Iran and 10% of girls in India think that menstruation is a disease (WaterAid 2013, Menstrual Hygiene Matters). Even, most cultures strongly believe that during menstruation, women are being impure. In Tanzania, some conceive that if a menstrual cloth is seen by others, the possessor of the fabric may be damned. In Nigeria, people who follow the religion of the Celestial Church believe a woman or girl should not touch any gauge (charm) during menstruation or it will become ineffective. In Surinam, menstrual blood is thought to be serious, and a malevolent person can do harm to a menstruating woman or girl by using black magic ('wise'). It is too thought that a woman can use her menstrual blood to impose her will on a man. In India, menstruating women are prevented from cooking, as it is thought that it poisons the food. Predominant among the Hindu communities in western Nepal and in certain parts of India is the practice of keeping menstrual women/girls in seclusion in small 'menstrual sheds.' The sheds lack access to basic amenities forcing women and girls on their cycles to reside in unhygienic conditions. In Japan due to the monthly cycle, women are prevented from becoming sushi chefs. In Sierra Leone, it is believed that used sanitary napkins can be applied to make someone sterile. In the rural areas of Kenya, many women use twigs, leaves, chicken feathers, which make the monthly cycle a difficult time for girls to attend schools. In central Ghana, menstruating women and young ladies are not left to cut across a river due to a belief that the river god does not approve of that.

5. OBJECTIVE OF THIS PAPER

The primary aim of this report is to elucidate how health information professionals can instill awareness among juvenile girls about this menstruation in collaboration with community health workers who are also designated by different names like community Health Care Provider (CHCP), Health Assistant (HA), Family Welfare Assistant (FWA), Shasta Sebika (SS).

6. NEED FOR COMMENCING MENSTRUAL LITERACY IN BANGLADESH

The population of Bangladesh is 164.7 million and population aged 0-14 is 28 per cent (UNFPA, 2017). According to UNICEF, Bangladesh is belonging in developing countries and has seen impressive progress in health and nutrition in the last few decades. As, the greater part of the high school young ladies in Bangladesh feel reluctant to discuss menstrual issues with their

folks. A noteworthy number of juvenile young girls, particularly in the rustic regions, are as yet utilizing unhygienic clothes as they reuse them without washing and drying appropriately, which causes contaminations and inevitably hurts regenerative wellbeing as well as makes diverse lethal sicknesses

Nevertheless, most of the teen-age girls in Bangladesh feel hesitant to talk about menstrual issues with their parents or other protectors. A significant number of adolescent girls, especially in the rural areas, are still using unhygienic rags as they reuse them without washing and drying properly, which causes infections and eventually harms not only reproductive health but also creates different deadly diseases.

In Bangladesh, People commonly believe that:

- The menstruating woman should not sleep with her married man as this would harm him.
- Must not touch a holy book or say her prayers.
- Must not go near cows. If she executes, it is considered that the cattle will make less milk and get sick.
- Must not visit ill people or female parents with newborn children. This would bring harm or induce illness.
- Must not touch the container where rice is stored. This would destroy rice production and bring bad luck to the household.
- Should not leave her home because she may be attacked by evil spirits which can make her infertile.

Although Bangladesh achieved success in public health, some portions remain poor because of the low utilization of primary and community health service. Grounds for not practising (or low using) community health services include cultural and social belief systems, discrimination against poor, distance of the facilities, lack of information or sources of attention, lack of awareness of the value of services etc. ('Improving primary health care using community clinics in rural Bangladesh', n.d.). A research conducted in Bangladesh, by the International Centre for Research on Women (ICRW) found adolescents lack access to health facilities, particularly to meet their sexual and reproductive health needs (ICRW, 2014). In another study, ICDDR, B found that teens face many health troubles and often do not have access to adequate information to address health problems or even don't know who to approach. This study also revealed that most girls do not have any knowledge about menstruation before they experience it given the taboos around menstruation.

In community health care, the community health workers play an active role like a doctor or semi doctor for the people in remote areas. They are the pillar or building block of the community-based health care system. They provide a lot of basic and primary health care and services from desk to door for adolescent girls of the community. Researchers agreed that CHWs are selected because they are community residents, who may not be indigenes of the community or they are indigenous members residing in the community; they are also expected to have a close understanding or share the ethnicity, language, socioeconomic status and life experiences of the community. Therefore, these characteristics proved that CHWs can better mobilize and increase community members' acceptance of the health services provided.

Bangladesh is looking forward to achieving the SDGs through meeting its various indicators where horizontal development is the prime focus rather than a vertical one. To achieve the SDGs in the health sector, empowerment of both health care providers and receivers in terms of gaining their health information literacy skills (HIL) are must ensure the horizontal development and eventually the SDGs. In schools, girls do not get actual education on menstrual health. Misconceptions, lack of information, lack of proper education may cause deterioration of maternal health situation, which in turn will hamper the fulfillment of the SDGs, particularly SDG 3 (Good Health and Well-Being), SDG-4 (Quality Education) and SDG-5 (Gender Equality)

In Bangladesh, CHWs provide a range of services to the adolescent girls. But adolescent girls from rural community are not aware of their Menstrual Cycle Literacy and its management. In addition, awareness of hygiene practices during menstruation is limited in Bangladesh. They get services but not properly educated or self-empowered to lead a healthy life. Besides, CHWs has also some lacking like lack of training, lack of Menstrual Cycle Literacy education, lack of health literacy, media literacy etc.

7. INITIATIVES TAKEN BY GOVERNMENT ORGANIZATIONS (GOs) AND NON-GOVERNMENT ORGANIZATIONS (NGOs)

Specially, the Government of Bangladesh has taken different types of initiatives to provide health information not only in urban areas but also in rural and remote areas. In this circumstance, the government has formed various types of the institution including Upazilla Health Complex, Union Health Complex, Family Welfare Center and Community Clinics. In Bangladesh, Community Clinics (CCs) are the focal point for the achievement of Millennium Development Goals as well as acting as a medium for the fulfilment of 2015-2030 Sustainable Development Goals (SDGs). The Government of Bangladesh has invested heavily for the betterment of these CCs. According to Bangladesh National Hygiene Baseline Survey, 2014, over 90% of women and girls surveyed across households get menstrual and reproduction information from female relatives which indicate that formal information and the initiatives of mass media are the barriers to provide quality information to the adolescent girls. According to the above research, it has been delineated clearly that CCs are playing the main central peak for human resources development as well as swelling the health services around every corner of Bangladesh for every kind of people. Primarily, CCs are the vivid paradigm of Public-Private Partnership for the Government of Bangladesh.

CCs are providing various types of services such as reproductive and maternal health issues, Health services of new-born baby, health services regarding family planning, nutrition-related issues and so on. CCs can transform the progression of the entire health services system in Bangladesh. In the modern society, a significant number of efforts have been making, especially in the developing countries, from different GO-NGOs and other private organizations in terms of girls 'education, women empowerment, reproductive and maternal health care, etc. Government has already developed the National Adolescent Health Strategy 2017-2030 to be able to get a healthy and productive life according to a socially secure and supportive environment. The Ministry of Health and Family Welfare has been taking various types of initiatives on the basis of PPP to ensure the effective implementation of this strategy and to disseminate these initiatives to all adolescent boys and girls. The government has already moved to improve health services for adolescents, especially girls, through the setting up of health corners which is called Adolescent Friendly Health Corners (AFHCs). DGFP, the Population Council has evaluated AFHCs to assess their performance and quality of services to extend this corner around the world as these corners has built at selected areas.

Sexual Reproductive Health (SRH), Adolescent Sexual and Reproduction Health (ASRH) programs are workable step by the government. It should be mentionable here that Bangladesh is new for providing AFHS and only a few NGOs provide services for adolescents but the services are limited specially school-based menstrual education. Though unmarried adolescent girls are going to AFHCs to enjoy their services but more programs need to implement to spread the awareness of menstrual education such as arranging weekly-based menstrual education session for those adolescent girls who feel hesitate to go to AFHCs. A research report conducted by The Population Council, Inc. (2017) found that school-going adolescent girls preferred to get special service hours and their preferable time is afternoon service hours once a week or opening for weekend service hours. Therefore, introducing the program of weekly-based menstrual

education session in school will be effective for school-going adolescent. This program can be organized with the collaboration of HIPs and CHWs.

However, many NGOs have been taking initiatives for promoting awareness of menstrual issues and Essential Health Care (EHC) in one of them. EHC initiated in 1991, Shashyashebikas and Shasthyakormis are mainly part of EHC. It is the foundation of BRAC's health program, combining promotive, preventive and basic curative services. It has revolutionized the primary healthcare approach in Bangladesh, reaching millions with low-cost basic health services through BRAC's frontline community health workers.

BRAC's water, sanitation and hygiene (WASH) programme has been conducting two separated program such as Hygiene and WASH in Schools featuring on menstruation hygiene and its significance but complete guidelines need to be incorporated in this program about menstrual education for adolescent girls. BRAC's sanitary napkin production programme has been supplying affordable, biodegradable napkins since 1999, to meet the public health needs of poor women and girls in rural areas.

Share-net Bangladesh is another NGOs initiative in this regard. It is the country hub of Share-Net International which is acting as a knowledge platform focusing on Sexual and Reproductive Health and Rights (SRHR). The platform aims to contribute significantly to policy and program development in the field of SRHR in developing countries. The Share-Net Bangladesh is the first of its global node, drawing on the years of experiences and interventions by practitioners, researchers, and policymakers in the field of sexual reproductive health, especially placing at the centre of human rights.

Shornokishore Network Foundation (named as Shornokishoree) is a registered non-profit and social change maker development organization in Bangladesh which started its journey in 2012. Initially, it has focused to work with adolescent girls -Shornokishoree (Golden Girl). Later on, it also worked with adolescent boys organization - SurjoKishor (Empowered Sunny Boy).

SKNF gradually expanded its strategic priorities and coverage throughout the country. Its creative strategies are to establish secondary school-based clubs, health education and classroom-based training, peer education at community for non-school going adolescents, community mobilization for addressing barriers, advocacy for supporting policy, programs and utilization of ICT and TV media for reaching the millions of targets population for achieving the national plan and the SDGs. SKNF has started with few districts in 8 divisions and gradually expanded its coverage to 491 upazila of all 64 districts of Bangladesh. However, most of the services – coming from GO-NGOs and private organizations – in this regard sound like the effort for vertical development rather than horizontal one as the aspect of gaining menstrual literacy skills among adolescent girls are absent or somehow partial not complete services which effect not to reach this literacy to adolescent girls. Again, the initiatives taken by GOs and NGOs do not outspread around the country.

8. BUILDING AWARENESS WITH THE HELP OF HIPs

Menstrual Cycle and Menstrual Hygiene Education are the prime services of primary health care mainly provided by community health workers to teenage girls. Menstrual Hygiene Management (MHM) directly affect women's reproductive health, education and labour participation as well as closely associated with gender equity and women empowerment in any parts of the world. Even though, it leads to the achievement of Sustainable Development Goals. According to BMJ, 41 % of schoolgirls in Bangladesh cannot attend classes during their menstrual cycle. Women in rural Bangladesh use home-based or unsanitary methods of menstrual protection such as old fabric, rags, sand, ash, and hay to manage menstruation. Sanitary Napkin cost is not cheap in Bangladesh because good quality sanitary napkin requires 12 to 15 types of raw materials from outside of the country. This is one of the significant issues to use unhygienic material during menstruation. Therefore, HIPs and CHWs can be worked together for the awareness of menstrual education.

9. RECOMMENDATION FOR JOINT COLLABORATION OF HIPs AND CHWs

A joint collaboration of HIPs and CHWs may be built at two stages

- To make self-empowered and skilled and fully health literate CHWs
- To make the community people health educated (Begum, Hasan and Aziz, 2017)

Based on the above recommendation, the following proposals can consider promoting menstrual literacy in Bangladesh:

First, collaboration to make CHWs skilled and fully literate on menstrual literacy can be considered:

To start joint collaboration, the following steps should explore to observe the lacking of menstrual literacy concept among CHWs:

- HIPs can take initiatives to identify the activities of CHWs and explore what types of information CHWs are providing to adolescent girls about menstrual literacy. These initiatives can be arranged by the project of public-private partnership.
- Prepare extensive and comprehensive training and manual or literature for providing menstrual education and how to promote it.
- Arrange training for CHWs to teach about advance menstrual education and further treatment so that they can give advice at the critical movement.
- Explore which sources they often use to gather menstrual information, make these sources available to them, and instruct them how they will search or seek authentic information. After knowing their usual channel make them aware of further channel and media of gathering knowledge and how can they utilize existing channels. Make CHWs habituated with breaking the taboos and superstition of this concept and building awareness among the community.
- Teach CHWs with advanced technology like internet, mobile phone, computer so that they can be self-dependent and self-empowered.
- Create the attitude of collaborative learning and work with other professions like health information professionals.

The second collaborative fields to promote menstrual literacy can be built to make the adolescent girls educated are:

- Measuring the awareness level and literacy level of adolescent girls
- Identifying what type of information, they need and expect and how they express their needs and lackings
- Categorize information according to general and special need, primary, secondary and tertiary need and address the needs on a priority basis
- Identify what teenage girls frequently do when they are in the menstrual cycle
- Create relation with seeking information, topics of their search and amount of result and the sources, the efficiency of that sources
- Create reliable sources of menstrual literacy
- Recognize what kinds of media habituated with juvenile young girls
- Explore the level of understanding of teenage girls and take initiatives to make process and object easier to understand.

10. CONCLUDING REMARKS

The Government of Bangladesh has been striving to ensure right to healthcare and medical treatment for all citizens. Menstrual literacy is a national as well as an international issue and it is related to development, national growth, Sustainable Development Goals (SDGs) and so on. Health information professionals can play a pivotal role in Menstrual literacy for adolescent girls. Joint Collaboration with CHWs and HIPs provide ultimate results in this literacy which

helps to reach SDGs. Policy makers, developers and interested authorities should take proper action to promote this issue for the progression of the nation for ensuring better health service to adolescent girls.

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DIGITAL LIBRARY DESIGN FOR VISIBILITY: A CASE STUDY ON UNIVERSITY DIGITAL LIBRARIES

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ABSTRACT:

The designers of digital libraries often assume that a user will enter the digital library at the homepage, and then work their way through the system in a top-down fashion. This might be true if the user knows the URL of the homepage or clicks through to it from the host universities' website.

However, as a result of the use of search engines to find academic documents, users often enter a website through any one of the many webpages which are hierarchically spread out below the homepage, i.e. "from the side". The search engine they have been using could very easily present as one of the many answers, a webpage containing an abstract of, or the full text of the academic document at stake. The purpose of this research project was to determine what the general visibility to search engines was of a collection of doctoral theses stored in the digital libraries of some of the top universities in the world.

The highest ranked universities globally were determined by aggregating the scores of a number of ranking institutions, then inspecting the websites of a selection of these top institutions. Where a digital library with PDF theses documents (not behind a login) was found, one document from each of the sample digital libraries was identified. A proven query generation method was used to then search for these documents, knowing that they do exist on a website which is open access. A number of top search engines were used in the process.

The results of these searches were recorded, and it was found that many DLs were hidden behind a login or were simply impossible to find on the university website. Only four DLs met all the conditions, and four Ph.D. theses in PDF format were downloaded.

The results of the 36 searches (360 websites investigated) has proven that in 22 of the 36 cases (61%), the required thesis was not listed. In nine of the 36 cases (25%), the thesis was listed in the first position on the result page.

It is recommended that the visibility of academic documents stored in university digital libraries be improved by providing rich text (abstracts, for example) in a plain text format on an indexable webpage, linking to the actual documents. This will provide ample food for crawlers to index, thereby increasing global exposure to the works of academic scholars.

Key words: digital library design, search engines, pdf thesis document, website visibility

1. INTRODUCTION

1.1 Background

Many websites which are designed to be used in a drill-down fashion (commercial online shopping websites, find-it-under-the-category-heading, digital libraries, the early Yahoo! type indices, etc), assume that all users will start at the homepage. They will then make consecutive selections from menus, and drill down into the hierarchy of webpages until they find what they want.

However, since the advent of modern search engines, this assumption is seldom correct. Currently many Internet users, when looking for information, are faced with a SERP (Search Engine Result Page), from which they have to make a choice by clicking on a website summary listed. They will then be taken to the website address linked to the result, and this webpage is not necessarily a traditional homepage.

When looking for academic full-text documents, for example, a SERP might lead them to the actual full-text PDF (Portable Document Format) document, which is found far down in the hierarchy of a DL (Digital Library) website, and many clicks removed from the homepage.

1.2 Research Problem

The research problem identified in this research project was that some academic documents in digital libraries were difficult to find, leading to reduced exposure to these works, resulting in a reduction of the quality of other research outputs, due to the latest published research not being findable (Beelet *et al* 2010; Weideman 2010b; Marks *et al* 2016; Mixteret *et al* 2014).

1.3 Aim and Objectives

The aim of this research project was to determine the visibility of these PDF documents. It was achieved through each one of these objectives:

- 1.3.1 To identify the top universities in the world, according to global rankings.
- 1.3.2 To identify those universities from this list, which had an open access DL, with some Ph.D. theses stored in PDF format.
- 1.3.3 To make a selection from the list of a relevant sample of DLs.
- 1.3.4 To identify one Ph.D. thesis document from each one of the chosen DLs.
- 1.3.5 To search for these documents, using top search engines, knowing that these documents are stored on the Internet, freely accessible to crawlers.
- 1.3.6 To summarize the actual visibility of the chosen sample set of documents.

2 LITERATURE REVIEW

2.1 PDF Documents

One of the most commonly used document storage formats during the last two decades (apart from a raw format like Microsoft Word's .DOCX, or Windows' Notepad .TXT), is the ubiquitous PDF format. Adobe Systems introduced the PDF format in the early 1990s, to allow document exchange across platforms. After this event, the PDF format has been widely accepted. This success was due to, amongst other reasons, the fact that a PDF document could not be opened or edited with Microsoft Word or ASCII text editor programs.

Shortly afterwards, many similar third-party offerings became available, offering the same alternative file creation format: PDF Converter Professional 4, DeskPDF Professional and BullZip PDF Printer (Mendelson 2007) to name but a few.

Currently, a search on popular search engines using a query like “PDF program” produces over-populated SERPs offering taglines like “create PDF files, PDF Converter, Adobe Reader, PDF Software”, etc. To enable users to protect their data files from being edited by others, various commercial enterprises actually started up (McClure 2009).

The PDF format has also been dubbed as being the best, most focused method for academics to ensure that their published works would easy to access and freely available (Donovan 2009). Although early research showed that Google does not index PDF files (Weideman 2010a), that has subsequently changed and most search engines index PDF files with ease now. So, the PDF file format has become the standard format for academics to publish their works in, to ensure protection of the content. Hence the decision to, for this project, focus on PDF -formatted documents only.

The format of stored documents was researched a decade ago, and PDF, RTF, HTML and text formats were noted as being prevalent (Skibinskiet *et al* 2009).

In summary, many digital libraries store their documents in the PDF format, and most search engines now index these documents with ease. In this research project, only PDF documents will be considered.

2.2 Information Retrieval

Some decades ago, Ingwersen defined IR as “... concerned with the processes involved in the representation, storage, searching and finding of information which is relevant to a requirement for information desired by a human user” (Ingwersen 1992).

More recently, research was completed on the creation of a search engine inside a DL. It was found that this product differed from other similar systems in that it would crawl the Web, much like search engine crawlers, and index documents found this as way, as opposed to authors submitting their documents to a directory (Wuet al 2014). It was also confirmed that the information retrieval process is complex and cannot be simplified to a simple sequence of steps (Li et al 2017).

The practice of “ego searching” also received some attention in research literature (Goldsborough 2013). As a form of information retrieval, it was suggested that some standard SEO (search engine optimization) practices be applied to improve the chances of finding relevant information. More than a decade ago, the importance of DLs exposing their content to allow more complex querying was proven (Fox 2006).

In summary, it is clear that information retrieval, especially from DLs, is alive and well, and in fact remains a crucial issue in the study of the use of these DLs.

2.3 University Digital Libraries

During 1988, the term “digital library” was used for the first time in a report of the CNRI (Anonymous2010).

Much research has been done on the design of DLs (The Stanford Digital Libraries Group 1995; McCray et al2001; Beard 2017). However, at that stage the focus was mostly on technical aspects of DL design - see Figure 1.

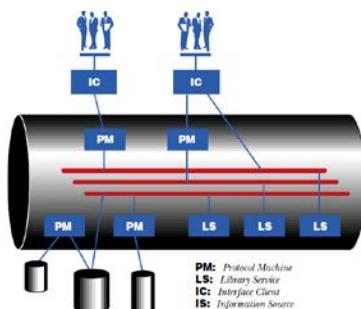


Figure 1: DL design (The Stanford Digital Libraries Group 1995).

Case studies on actual DLs having been designed and which are in operation abound (Finley 2018; Liu et al 2018; Mann 2018; Uutoni2018).

Some questions have been asked about the real value of DLs (Lagozeiet al2005).However, DLs have become closely linked to university physical libraries (McMartinet al2006).In another project, ETDs (Electronic Theses and Dissertations) have been defined as a sub-category of DLs (Schöpfelet al2014).

It is clear that DLs are an integral part of university libraries, and more and more Internet searchers are turning to these DLs to satisfy their information needs – hence this research.

2.4 Search Engines

Google announced that it could index PDF documents after the turn of the century (Boyd 2017). This was a major event and heralded the beginning of the era of PDF documents playing an important role in DLs.Online search for information has become an ordinary part of everyday life (White et al 2006).

It has been proven that if one considers the biggest search engines to be used (Google, Bing, Yahoo!), one can actually ignore the others (Weideman 2009).

Research on search engines has been ongoing since the mid-1990s (Vaughan *et al* 2003). In this case, work was done of the interface design of search engines, in an attempt to find the best way to design these interfaces.

As researchers have become more and more au fait with this “new” process of finding information without an intermediary (the librarian), they actually started switching between search engines, if the first one did not provide the correct answer (Heath *et al* 2008). This is equivalent to a library visitor going to another bricks-and-mortar library if the first one they used could not supply the book they were looking for.

3 METHODOLOGY

3.1 Identifying University Digital Libraries

In a research project done on library websites, the THE (Times Higher Education) index of universities was used as a source of university rankings to select a sample from. (Harinarayana *et al* 2010). A similar but expanded process was used in this research project:

- 3.1.1 Lists of the top universities in the world were taken from six different ranking lists (Weideman 2010a; Weideman 2010b), if they did provide a clear indication of the algorithm they have used for the rankings. Out of the original six ranking lists, four remained to be used further. See Appendix A – the four ranking lists to be used are highlighted in green.
- 3.1.2 For each university in the top 20 of each ranking list, a score was allocated: 20 for the number one university, 19 for number two, up to a score of one for the number 20 on the list.
- 3.1.3 Each university on the list was categorized according to continent, to later ensure that a fair spread is obtained across the globe – see Table 2.
- 3.1.4 These scores were added, and the list was re-sorted from the highest total score to the lowest – see Appendix A and B.
- 3.1.5 Next, the top 10 in from this list was inspected, and some questions asked:

 - 3.1.5.1 Does this university have a DL?
 - 3.1.5.2 If yes, does it allow free access (i.e. can one use it without having to log in?)
 - 3.1.5.3 Can one then download a Ph.D. thesis in PDF format from the DL?

- 3.1.6 After having completed 3.1.5, only those with a “YES” answer to each one of the three questions above were retained.
- 3.1.7 Finally, one university from each continent on the list NOT included yet was selected.
- 3.1.8 Those universities having made it to this final list, are indicated in green in Appendix A and B.

Table 1: List of university ranking lists

NAME	URL	RESULT	DECISION
ARWU	http://www.shanghairanking.com/ARWU2018.html	Could not find ranking method, only for Journal Articles	Omit
CWUR	https://cwur.org/2018-19.php	Found ranking algorithm, has Ph.D theses in PDF format	Include
THE	https://www.timeshighereducation.com/news/world-university-rankings-2019-results-announced	Found ranking algorithm, has Ph.D theses in PDF format	Include
TOPUNI	https://www.topuniversities.com/university-rankings/world-university-rankings/2019	Found ranking algorithm, has Ph.D theses in PDF format	Include
WEBO	http://www.webometrics.info/en/world	Found ranking algorithm, has Ph.D theses in PDF format	Include
WORLDTOP20	https://worldtop20.org/global-universities	Could not find ranking method	Omit

Table 2: List of continents

Asia	AS
Africa	AF
North America	NA
South America	SA
Antarctica	AN
Europe	EU
Australia	AU

3.2 Identifying Sample PDF Documents

Once the DLs meeting all the conditions were identified (there were only four out of 12 possibilities; Harvard, MIT, CalTech and UC Berkeley), one Ph.D. thesis from each one was identified. The thesis was chosen randomly, after meeting the following conditions:

The thesis had to be:

- Published in 2015 or earlier (to allow search engine crawler visitation).
- Published in PDF format.

The sample PDF theses to be used were identified as being these four documents:

- 3.2.1 Harvard.GERMAN-DISSERTATION-2015.PDF
- 3.2.2 MIT.830390586-MIT.PDF
- 3.2.3 CalTech.Anna_CT_Abelin_may2014.PDF
- 3.2.4 UCBerkeley.qt9hq1z1t7.PDF

3.3 Search Query Generation

A decision had to be taken on how search queries were to be generated, to ensure that the probability of finding these documents would be as high as possible. Previous research was used to identify the best methods for generating search queries, when looking for academic documents through search engines (Weideman 2010a; Weideman 2010b). These three methods are, respectively:

- Filter out the first five keywords from the title...
- Link the surnames of all authors...
- Copy the first words of the first sentence...

The three SQs (Search Queries) for each thesis were as follows:

- 3.2.1 SQ1: Investigating exploiting metabolic vulnerabilities cancer
 SQ2: German
 SQ3: It is more relevant than ever to understand how metabolism influences tumor growth
- 3.2.2 SQ1: Digital Cellular Solids reconfigurable composite
 SQ2: Cheung
 SQ3: The digital revolutions in communication and computation have enabled engineered systems that functionally scale to Avogadro numbers of their functional units
- 3.2.3 SQ1: RATIO METRIC-BASED MEASURE GENE COEXPRESSION
 SQ2: Abelin
 SQ3: One of the fundamental and longstanding goals of modern biology is to fully comprehend the role of each gene in the genome
- 3.2.4 SQ1: 21st Century Zombies Media Cinema
 SQ2: Taylor
 SQ3: In the epigraph Shannon Jackson outlines the vastness of what performance is

The final step was to execute searches for these four documents, using Google, Bing and Yahoo!, based on the search queries listed above. Therefore, a total of 36 searches were done (3 search engines X 4 documents X 3 search queries), and only the first SERP (10 results) of each search was inspected.

4 RESULTS

Notations used below:

- **G** = www.google.com, **B** = www.bing.com, **Y** = www.yahoo.com
- 1/3/4... = the search query produced the required thesis in this position on the SERP.
- X = the search query did not produce any correct listings.

To make the summary below easier to read, colours were used:

green = a “best” result, yellow = a “good” result, red = a “bad” result.

3.2.1

G:**SQ1 = 1**. SQ2 = X. SQ3 = X. B:**SQ1 = 1**. SQ2 = X. SQ3 = X. Y:**SQ1 = 1**. SQ2 = X. SQ3 = X.

3.2.2

G:**SQ1 = 1**. SQ2 = 4. SQ3 = 4. B:**SQ1 = 1**. SQ2 = X. SQ3 = X. Y:**SQ1 = 1**. SQ2 = X. SQ3 = X.

3.2.3

G:**SQ1 = 3**. SQ2 = X. SQ3 = X. B:**SQ1 = 3**. SQ2 = X. SQ3 = X. Y:**SQ1 = X**. SQ2 = X. SQ3 = X.

3.2.4

G:**SQ1 = 1**. SQ2 = X. SQ3 = X. B:**SQ1 = X**. SQ2 = X. SQ3 = 1. Y:**SQ1 = 3**. SQ2 = X. SQ3 = 1.

5 CONCLUSION AND RECOMMENDATIONS

Quite a few conclusions are evident from the findings above. These include:

- 5.1 SQ1 seems to be the most effective search query method – it produced the best result seven out of 12 times (58.3% of the time).
- 5.2 SQ2 seems to be the least efficient search query method – it consistently produced the worst result - nine out of 12 times (75% of the time). This can be understood, since all thesis have a single author, and one surname only as search query is unlikely to produce accurate search results.
- 5.3 In all but one case (3.2.3. Y) did the search engines produce at least one listed result of the actual thesis.
- 5.4 In 22 out of the 36 searches (61%) the required thesis was not listed at all (all the red blocks above).
- 5.5 In nine of the 36 searches (25%) the required thesis was listed in the first position on the result page.

These results seem to indicate (especially 5.4) that a lot is left to be desired, in terms of the general visibility of Ph.D. theses stored in the DLs of top universities the world over. When considering that any research publication normally contains numerous very specific text phrases, often difficult to spell (making it easier to find through search engines), these results are even more troublesome.

It is recommended that the visibility of theses (and all other research documents) in DLs should be improved, using one or more of many possible schemes:

- 5.6 Provide a single text-only webpage in the DL, containing the titles and abstracts of all research documents, and ensure that it has been designed to be search engine friendly. Insert a link from each title to the full-text document, as stored in the DL.
- 5.7 Apply all the basic SEO principles to this page, before submitting it to the search engines.
- 5.8 Ensure that all PDF documents have their meta-data fields completed, and that they have been given SEO-friendly filenames.

- 5.9 Ensure that all websites have an XML sitemap, and that their URLs have been submitted to Google and Bing.

6 FURTHER RESEARCH

Following on this completed project, it could be expanded to include variations, as listed below.

- 6.1 Obtain more theses from more universities, since many drop out along the way.
- 6.2 Add other search queries to improve the retrieval efficiency.
- 6.3 Add more search engines to the list of three.

7 LITERATURE

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APPENDIX A

University Scoring – Part 1

NO	UNIVERSITY	CON	CWUR	THE	TOPUNI	WEBO	TOTAL
1	Stanford	NA	19	18	19	19	75
2	Harvard	NA	20	15	18	20	73
3	MIT	NA	18	17	20	18	73
4	Oxford	EU	16	20	15	17	68
5	Cambridge	EU	17	19	16	10	62
6	CalTech	NA	12	16	17	0	45
7	UCalif, Berkeley	NA	15	6	0	16	37
8	Princeton	NA	14	14	8	0	36
9	Yale	NA	10	13	5	7	35
10	Chicago	NA	11	11	12	0	34
11	Columbia	NA	13	5	3	12	33
12	Cornell	NA	7	2	7	13	29
13	Pennsylvania	NA	8	8	2	11	29
14	Johns Hopkins	NA	5	9	4	9	27
15	Imperial College London	EU	0	12	13	0	25
16	UCL	EU	0	7	14	0	21
17	ETH Zurich (Swiss Federal Inst. of Techno)	EU	0	10	11	0	21
18	Michigan, Ann Arbor	NA	3	1	15	0	19
19	UCLA	NA	6	4	0	8	18
20	UniWashington	NA	0	0	0	14	14

21	Nanyang Technical University, Singapore	AS	0	0	10	0	10
22	UniTokyo, Japan	AS	9	0	0	0	9
23	Ecole Polytechnique Federale de Lausanne	EU	0	0	9	0	9
24	UCSanDiego	NA	1	0	0	6	7
25	UniToronto	NA	4	0	0	2	6
26	National Uni of Singapore, Singapore	AS	0	0	6	0	6
27	Uni of Wisconsin, Madison	NA	0	0	0	6	6
28	Duke Uni	NA	0	3	0	1	4
29	Uni of Minnesota, System	NA	0	0	0	4	4
30	Pennsylvania State Uni	NA	0	0	0	3	3
31	Uni Washington, Seattle	NA	2	0	0	0	2
32	The Australian National University	AUS	0	0	1	0	1
33	Swiss FedTech	EU	0	0	0	0	0
34	WashingtonUni	NA	0	0	0	0	0

APPENDIX B

University Scoring – Part 2

NO.	DL Landing page	Why was a thesis not downloaded?	Ese of use (0=Very easy and clear, 9=very difficult to find and use) 123 456 789
1	https://searchworks.stanford.edu/catalog	Seems that user can only access ecopies of thesis after login	8
2	https://dash.harvard.edu/handle/14727443		8
3	https://dspace.mit.edu/handle/1721.1/7582		7
4	https://www.bodleian.ox.ac.uk/bodley	Seems that user can only access ecopies of thesis after login	9
5	https://www.repository.cam.ac.uk/handle/1810/277014	Seems that user must request that thesis ecopy be mailed	9
6	https://thesis.library.caltech.edu/		2
7	https://escholarship.org/uc/ucb_etd		3
8	https://dataspace.princeton.edu/jspui/handle/88435/dsp019c67wm88m	Only possible once registered and requested uni to send user an ecopy of thesis, or by logging in	5
9	http://discover.odai.yale.edu/ydc/		6
10	https://shibboleth2.uchicago.edu/idp/profile/SAML2/POST/SSO;jsessionid=14mvh7xk7v54vpk4s4st4ambu?execution=e1s1	Seems that user can only access ecopies of thesis after login	6
11			
12			
13			
19			
20			
21	https://www.ntu.edu.sg/Pages/home.aspx	Could not find a DL	5
22			
23			
30			
31			
32	https://openresearch-repository.anu.edu.au/handle/1885/2	Seems that user can only access ecopies of thesis after login	5
33			
34			

ACADEMIC LIBRARY DEVELOPMENT PROJECTS AS TOOLS IN DESIGNING PEDAGOGICAL APPROACH IN INFORMATION LITERACY

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ABSTRACT:

Information literacy, "(...) the ability to think critically and make balanced judgements about any information we find and use. (...)" (CILIP 2018), is an important skill set for academia in the 21st century. Over the years since its first inception, it has become a key competence for academic librarians to offer to students.

Although there has always been a need to find, evaluate, and effectively use information, the abilities needed to do so have just grown larger, more complex, and more important in the information and communication technology (ICT) environment. There is also a shift towards broader contexts, to connect information literacy with an active, effective and responsible citizenship (Virkus, 2003).

Information literacy is about dealing with information overload – how to choose and decide what is useful and trustworthy. Hence, the focus of information literacy training was different from Bergen, with a large amount of electronic information resources in 2007, to Brasov, with less (Repanovici & Landøy 2007; 2014).

Our common interest in information literacy in academic libraries also led us to reach out internationally, and apply for funding to support the development of IL in academic libraries in Republic of Moldova, and in the Western Balkans. In this paper, we will show examples of best practices from the projects.

In the Republic of Moldova, we joined forces with Academy of Economic Sciences (ASEM) in Chisinau. First, we trained the ASEM librarians, and then we developed a new project, where we targeted all academic libraries in the republic. In this project, the libraries were supported to make IL trainings for their students, as well as Open Access and bibliometric services (Landøy et al 2017).

Transilvania University of Brasov also participated in two Erasmus+ CBHE-projects: One in Armenia, Moldova and Belarus and one in Western Balkans. In both these projects one of the modules for staff development is “enhancing librarians’ development in teaching Information Literacy”.

In this paper we will show how the collaborations from our libraries within development of information literacy and other issues, has been beneficial for students and academics at our universities as well as in the international projects we have participated in.

Key words: Collaboration; Norway; Romania; Moldova; Western Balkans; Information literacy; Academic libraries; Development

1. INTRODUCTION

University of Bergen Library and Transilvania University of Brasov have collaborated for more than a decade, with a special focus on joint development projects and joint research in Library and Information Science matters. One aspect of our collaborations is in development of information literacy (IL), both as a theoretical concept and as practical trainings for our students (Repanovici & Landøy 2007; 2014).

Our first joint research and development study took place in 2007. Wanting to support and augment our understandings of students' acts and attitudes with regard to library usage, we handed out short and similar paper-based questionnaires. They were given to students in both libraries, fall term 2007 and spring term 2008. In Bergen we had 93 respondents, 100 in Brasov. The questionnaires had been developed in Romanian, translated to English and then to Norwegian. We wanted to explore students conduct and understandings with regard to the use of

libraries, especially the university library, and the electronic resources provided. (Repanovici & Landoy 2014)

Students both in Bergen and in Brasov replied that they preferred the Internet as information source, and wanted to access it from home. At the same time, we found that they were not knowledgeable with evaluation of electronic information resources, with ethic notions, with plagiarism and the communication of the results in the scientific research. Thus, this needed to be taken into consideration when planning information literacy trainings. (Repanovici & Landoy 2014)

The trainings, as they were developed and given, were carefully evaluated. The post-training evaluations from students were compared, and used as basic for further development of courses.

“Students find these courses useful and relevant. In evaluations, they give high marks for relevance, and they also comment upon this when asked, be it written or oral. When asked what they find relevant, the answers cover both the practical tools for finding information (databases, journals, other resources, as well as the new knowledge in searching and evaluating information. Flattering enough for the library and the actual librarian, students also give the library high marks for performance, and for the conception of the course.” (Repanovici & Landoy 2007)

Students evidently regarded the course as more relevant if it included practical tasks as a starting point, and that it would be offered exactly when they needed it. Keeping the students' concerns about their use of time in mind when planning meant that we would use different search examples for different group of students. Professors/university teaching staff told us that they realized their students had learned new information literacy skills. Also, they realized that they were relieved from using tutorial time to show students how to evaluate information and how to cite. The university teaching departments kept asking for courses for more student groups at more levels. (Repanovici & Landoy 2007)

When information literacy is considered a tool for dealing with information overload – how to choose and decide what is useful and trustworthy it became obvious that the focus of trainings would be different from Bergen, with a large amount of electronic information resources in the library in 2007, to Brasov, with less.

We also share with you the results of our latest research in students' attitudes to the university library, and the development of academic libraries:

In 2016 we did a web-survey with Survey Monkey among Transilvania University of Brasov engineering students, and interviews in Bergen. In Brasov, there were 105 respondents: 27 % male, 73 % female; 39 % in their first year and 43 % in their 4th year. The student's ages were 18-21 years: 38%, 22-23: 50 %, over 24:12 %.

In Bergen, there were 12 students interviewed: 5 males, 7 females. 3 at bachelor level and 9 at master. They were all users of the library. 8 were from the Faculty of humanities, 1 law, 3 from social sciences, and they were invited to have a coffee and an interview. (Landoy & Repanovici 2016)

We wanted to discover what, if anything, students envisioned as new and interesting trends in academic libraries. In the survey, the suggestions were formulated in the questions, but in the interviews, there were no pre-formulated suggestions. (Landoy & Repanovici 2016).

Brasov students wanted the library to be more like a learning centre, providing connection to electricity and internet (93 of 105 students replied that this was the most important). The second most important were “boards, video projectors connected to laptops for presentations” (73 students agreed to this), and third “furniture - tables and chairs - which can be moved”. The least important of the formulated choices was “mobile walls to create various private spaces for individual or team study”.

In Bergen, all 12 students would use “boards, video projectors connected to laptops for presentations” and half would use “furniture - tables and chairs - which can be moved” and “mobile walls to create various private spaces for individual or team study. Internet and electricity were not mentioned by any of the students, probably because it is seen as given (Landoy & Repanovici 2016).

If the library was called “Centre for Technological Transfer”, the Romanian students saw “copy and printing devices and scanners” as the most important feature, closely followed by “workshops on various topics of interest” and “laptops and mass-media technology for borrowing”. “Gaming space” was least important (Fig. 1 Facilities provided by Centre for Technological Transfer).

Answer Options	1	2	3	4	5	Rating Average	Response Count
An area with 3D printers, supplies and related software	2	1	20	32	49	4,20	104
Gaming space - Lego, chess for stimulating creativity	7	17	34	29	17	3,31	104
Copy and printing devices, scanners	0	2	8	26	69	4,54	105
Laptops and mass-media technology for borrow (photo)	0	5	12	30	58	4,34	105
Online documentation regarding the use of the	0	4	29	35	35	3,98	103
Online documentation for downloading and using the	1	4	15	28	55	4,28	103
Online communication with a specialized support IT	1	7	12	38	46	4,16	104
Training courses for using the various technologies	0	3	15	37	50	4,28	105
Exhibitions of new products by different companies	2	6	19	32	46	4,09	105
Workshops on various topics of interest	0	4	13	26	62	4,39	105
Others						2	
							answered question 105
							skipped question 0

Fig. 1 Facilities provided by Centre for Technological Transfer

In Bergen, where the majority of the students were from the Faculty of Humanities, the library/learning centre would be a more interesting place than the centre for technology transfer, according to the students that we interviewed. All 12 would be interested in relevant books, journals, media, databases (both printed and electronic) and 9 mentioned study spaces in different kinds of zones (more or less quiet; with or without computer). 8 found accommodating and knowledgeable library staff to be important (Landoy & Repanovici 2016).

2. INTERNATIONAL DEVELOPMENT PROJECTS

Our common interest in information literacy in academic libraries also led us to reach out internationally, and apply for funding to support the development of IL in academic libraries in Republic of Moldova, and in the Western Balkans.

In the Republic of Moldova, we joined forces with Academy of Economic Sciences (ASEM) in Chisinau. First, we trained the ASEM librarians, and then we developed a new project, where we targeted all academic libraries in the republic. In this project, the libraries were supported to make IL trainings for their students, as well as Open Access and bibliometric services.

The project contains diverse capacity building activities:

- Workshops
- Summer schools
- Study trip to Bergen
- Participation in conferences
- Strategy development
- Learning and sharing best practices
- English language skills

And some networking and content-activities:

- Electronic journals
- Bibliography
- Institutional repositories

- Academic writing centres
- Dissemination activities
- Project web page

In the project, all 18 academic libraries in Republic of Moldova collaborated, under the guidance of University of Bergen Library, The scientific library of Academy of Economic Science and our Romanian expert.

In the project document, it is stated that: "If the project is successful the librarians working in the academic libraries in Moldova will be better trained for running modern library services. This will influence the quality of higher education and research. The librarians will have better English language skills, and will have strengthened their networks, both within and outside Moldova. The general public will have a better understanding of the importance of libraries."

Information literacy is only one part of the project, and the practical activities include a week of summer school, where different aspect of IL in academic libraries, both in Republic of Moldova and internationally was discussed. The newest trends of IL, Gamification, and Academic Writing Centres, were also explored. Later, there was a workshop with deliverables: trainings to be developed and performed, and evaluations to be reported.

Transilvania University of Brasov was head of a TEMPUS project: "Developing information literacy for lifelong learning and knowledge economy in Western Balkan countries, 2010-2013". In this project IL programs for lifelong learning and their use in curricula was developed, including innovative online IL modules for lifelong learning and the harmonization of the IL programs with those currently active in Western Balkan countries. The project aimed at strengthening the capacities of higher education institutions in the Western Balkans for the strategic planning and implementation of IL programs to instill transferable skills for a competitive, dynamic, knowledge-based economy.

<http://www.lit.ie/projects/tempus/default.aspx>

Transilvania University of Brasov also participated in two Erasmus+ CBHE Projects: (561633) "Library Network Support Services (LNSS): modernizing libraries in Armenia, Moldova and Belarus through library staff development and reforming library services" 2015-2018 <https://lnss-projects.eu/amb/curriculum/module-4-information-literacy-research-skills/> and (Erasmus+ CBHE Project 561987) "Library Network Support Services (LNSS): modernizing libraries in Western Balkans through library staff development and reforming library services" 2015-2018 <https://lnss-projects.eu/bal/>

In the 2 ERASMUS + projects one of the modules for staff development is enhancing librarian's development in teaching Information Literacy, Module 4, Information Literacy Research Skills Information Literacy & Research skills- to help learners find and use information effectively and ethically- this module will cover:

- International Information Literacy Standards- SCONUL, ACRL, ALA, ANZIL,
- Using Online Information Literacy Modules for teaching Information Literacy
- Mind the Information Gap! Knowing the critical information sources and resources
- Critically analysing information resources
- Referencing citation and Avoiding Plagiarism
- Introduction to the Literature Review
- Using Electronic Library Databases for your research
- Evaluating sources of information
- Web & Internet search strategies for the Information Age
- Using Bibliographic software for your referencing and research
- Academic writing including Dissertation Writing
- Becoming a Subject Liaison Librarian: skills for collaborating with Academic staff
- Information Literacy for Entrepreneurship

- Train the Trainer: Teaching and pedagogical skills for Librarians.Lnss-projects.eu. (2019).

In LNSS project developed in Western Balkans, the consortium developed Library Network Support Services Western Balkans Platform on LibGuides. Lnss-albania.libguides.com. (2019). (Fig. 2)

The Western Balkan Online Library Platform is a highly inventive, innovative and unique collaborative reservoir of related library resources and expert content which can be used, shared and further developed by any Library or Information Center to help develop their service.

Using this resource and platform, the project developed a host of resources, both in English and to be translated into the language of partners. Libraries in the Western Balkan region are now part of the international community Springhare, a unique global phenomenon of over 120,000 libraries from 80 countries.



Fig. 2: The Western Balkan Online Library Platform
(<https://lnss-albania.libguides.com/c.php?g=665627&p=4714039>)

3. CONCLUSIONS

The collaborations from our libraries within development of information literacy and other issues, as shown in this paper, has been beneficial for students and academics at our universities and in the projects, we have participated in.

Project collaboration has generated a strong impact in participating countries. The impact is measurable through co-published works, courses, summer schools, workshops and trainings attended by many librarians. The introduction of the *Information Literacy* course in the curriculum of many specializations and the awareness of the importance of the *Information Literacy* in the academic environment contributes to this. Graduates with abilities to search, evaluate and ethical use of information will help their easier integration into the labor market and raising the level of critical thinking of citizens, who are able to think, analyze and make the best decisions.

Our noble mission proved to be rewarding with professional achievements.

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THE ROLE OF MOOCs IN ACHIEVING THE SUSTAINABLE DEVELOPMENT GOAL FOUR

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ABSTRACT

Purpose- Education is one of the most powerful and proven vehicles for sustainable development. More specifically, Education for All has been a core issue of international development. Sustainable Development Goals in Education (SDG 4) is “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (Uvalić-Trumbić & Daniel, 2016, p. 35). MOOCs can be the handy way to achieve such inclusive and quality education for achieving Sustainable Development Goals (SDGs). MOOCs changes the way of teaching as well with the help of electronic resources which can make our classroom more meaningful and efficient ever than before. Through the proper use of electronic resources student can gain knowledge more practically, more visualization is possible which can make long-term benefits for the learners and practitioners which leads us towards the attainment of Sustainable Development Goals (SDGs). This paper is aiming at illustrating the potential of MOOCs for achieving the Sustainable Development Goal 4 (Quality Education) as binding for all nations of our planet which eventually affects all 17 Sustainable Development Goals (SDGs).

Design/methodology/approach – The study is descriptive in nature based solely on secondary data. To accomplish the objectives of the study, authors reviewed (Exhaustive Content Analysis) related prior surveys, reports, articles and studies. Systematic charts, statistics, graphs and related tools were used to visualize how MOOCs helps to attain sustainable development in education.

Findings – This study indicated how MOOCs are valuable to give quality, inclusive education and what the future extents of MOOCs are. Explicit consideration is given to why students use MOOCs and what the potential drawbacks to MOOCs are. Finally, it showed how MOOCs helps to accomplish the sustainable development goals.

Research limitations-The study was solely based on secondary data. It could be better to impart some primary data with respective respondents to generalize the implications of the study.

Originality/ Value- This study has drawn attention to the importance of the relationships between MOOCs and sustainable development attainment in the current context. The findings have significant implications for researchers and practitioners. Despite the existence of research on sustainable development, no empirical study was conducted particularly on MOOCs towards sustainable development related research.

Keywords: MOOCs, Education, Sustainable development Goals (SDGs), Bangladesh.

1. INTRODUCTION

“Narrow the gaps. Bridge the divides. Rebuild trust by bringing people together around common goals. Unity is our path. Our future depends on it.”(António Guterres,Secretary-General of the United Nations, 2018). So, to build a better future, Heads of State and Government of the 193 member countries of the United Nations adopted agenda for Sustainable Development (SDG): 2030 on September 2015. The creation of this path to promote sustainable development was undertaken through the setting up of 17 Sustainable Development Goals (SDGs) with 169 targets. The 2030 agenda for Sustainable Development provides a global blueprint for dignity, peace and prosperity for people and the planet, now and in the future. The SDGs cover social and economic development issues including poverty, hunger, health, education, global warming, gender equality, water, sanitation, energy, urbanization, environment and social justice (UN Report, 2016).

Education for All has been a concept at the heart of international development since 1990, firstly within the Millennium Development Goals and more recently within the Sustainable Development Goals (SDGs), most notably as SDG 4, ‘Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all’ (Uvalić-Trumbić & Daniel, 2016). In addition to that, ‘*SDG 4 is to be achieved through the accomplishment of ten targets, which together represent the most comprehensive and ambitious agenda for global education ever attempted*’ (OECD, 2017 p. 27).

Obtaining a quality education is the foundation to creating sustainable development. In addition to improving quality of life, access to inclusive education can help equip locals with the tools required to develop innovative solutions to the world’s greatest problems. More recently the OECD has noted: *Making SDG 4 a reality will transform lives around the globe. ‘Education is so central to the achievement of a sustainable, prosperous and equitable planet that failure to achieve this particular SDG puts at risk the achievement of the 17 SDGs as a whole. It is well recognized that education plays a critical role in eradicating poverty and steering the vision for prosperous and sustainable development’* (OECD, 2017 p. 27). Probably Nobel laureate Malala Yousafzai says the best line in short so far about the importance of education for attaining SDGs which is “*All the SDGs come down to education*”. A World at School’s Policy and Advocacy Director Kolleen Bouchane (2015) said: “*Education has a unique power to catalyze gains in other areas. Very few, if any, health or economic interventions will be sustainable without gains in education.*”

While education, and higher education, are seen as critical to the SDGs there are those who see distance education (Through MOOCs) as playing a central role (e.g., Uvalić-Trumbić & Daniel, 2016), those who see open educational resources as important (MacKinnon, Pasfield-Neofitou, Manns, & Grant, 2016), others who forefront education for sustainable development (e.g., Gokool-Ramdoo & Rumjaun, 2016). MOOCs, a term introduced in 1998 by Jay Cross, founder of the Internet Time Group, has become extremely popular. Nowadays, it has become a viable alternative to traditional education methods, so it has been adopted by many institutions, countries across the globe especially because of the possibility of wide access. According to CIPD (2013), MOOCs can be defined as ‘learning that is delivered, enabled or mediated using electronic technology for the explicit purpose of training, learning or development in organizations. While the definition provided by Kaplan-Leiserson (2002) seems to be comprehensive, it shows the different forms MOOCs may take. This definition is ‘MOOCs is education or training courses delivered to remote locations via synchronous or asynchronous means of instruction, including written correspondence, text, graphics, audio or video tape, CD-ROM, MOOCs, videoconferencing interactive TV, facsimile, and the World Wide Web’ (cited by Stone, D. and Dulebohn, J, 2013).

MOOCs can be handy and effective way to attain SDG 4 in many ways. Massive open online courses (MOOCs) are free open education offered through online platforms which is an important tool to achieve Goal 4 (*Patru, Mariana; Balaji, Venkataraman, 2016*). MOOCs can play a crucial role in reducing the ‘Digital Divide’ and strengthening ‘Democratization of Education’ (Anshu Miglani and Ashish Kumar Awadhiya, 2017, p.58). MOOCs offers the access to quality education to the learners in a cost effective way irrespective of their location (Fozdar & Kumar, 2007). Mobile Learning (m-Learning) have emerged as a trend in the field of education. It is removing the time and geographical barriers for learning by placing learning opportunities at the fingertips of learners (Awadhiya, A. K., & Miglani, A. 2016).

Quality education influences the trajectory of an individual’s actions for decades and, in a collective sense, determines the course of human society itself. In other words, progress with the rest of the SDGs critically depends on advancing SDG 4 (P.S. Narayan, 2017). So, with improved education, so many other areas are positively affected. In short, education has the

power to make the world a better place what sustainability actually means. MOOCs help to attain SDG 4 and eventually all the SDGs will affect positively towards attainment within 2030.

2. LITERATURE REVIEW

Education is, therefore, also considered as the bedrock of the socio-economic, cultural and political uplift of a society or a country. Education is necessary because it acquaints people with the need-based skills, knowledge and information in their respective fields. Education strengthens the capabilities of the people and helps to bring them up as the knowledge population (Ritimoni B.2018).Although the benefits of education for the individual are clear, the aggregate effects on economic growth are more difficult to measure and remain a matter of dispute (Krueger and Lindahl,2001; Pritchett, 1997; and Bloom and Canning, 2004).The United Nations Conference on Environment and Development (UNCED) highlighted the potential role of education in relation to sustainable development (Rickinson, Lundholm, & Hopwood, 2009).Education is held to be central to sustainability (McKeown 2000). Indeed, education and sustainability are inextricably linked.

Access to Education and Training Resources: As documented in the accompanying background paper -'An Analysis of the Role of ICTs to Achieving the MDGs-A Background Paper', a number of the African countries including Rwanda, Ghana, Ethiopia, Nigeria, South Africa, Algeria, Tunisia and many others are implementing various forms of education programs and initiatives using ICTs to improve and widen access to educational resources in a number of ways including: improved access to learning materials and resources, widening of access to education through MOOCs etc. A number of these initiatives are contributing to promoting universal primary education in a number of these countries.

MOOCs can be raised as an alternative way for making education accessible and for providing scope for skill-based education at a minimum cost. In fact, MOOCs, in particular, can play a significant role in transforming and empowering the vibrant adult population of a country into productive human resources by providing need-based training and equipping them with need-based skills, which are necessary for maintaining a decent standard of living (Ritimoni B., 2018). But there are no such studies have made on the role of MOOCs as an aid of attaining SDG 4 and eventually the attainment of Sustainable Development Goals (SDGs). Some studies also contributed to demonstrate the ways of achieving SDGs and challenges of attainment of some particular goal(s). But no such study was conducted on the impact of MOOCs on the attainment of SDG 4 (Quality Education). These gaps call for further empirical studies such as the current study to add to the literature.

3. METHODOLOGY

The study is descriptive in nature based solely on secondary data. To accomplish the objectives of the study, authors reviewed related articles, Statistics, News, Conventions and studies. Systematic charts, graphs and related tools were used to visualize how MOOCs helps to attain Sustainable Development Goals (SDGs) particularly in education (SDG 4). The study uses following conceptual framework to examine how MOOCs helps nations to attain sustainable development goals in education (SDG 4) and eventually the all 17 sustainable development goals (SDGs).

Conceptual framework of the research:

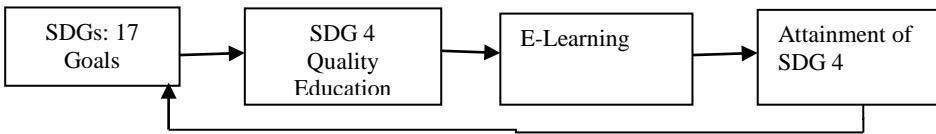


Figure: How MOOCs aid to attain SDG 4 and SDGs

4. ANALYSIS AND DISCUSSION

Sustainable Development Goal 4 is the education-related goal of the United Nations 2030 Agenda for Sustainable Development, adopted in September 2015. Its overall aim is: to: “*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*”. MOOCs offer education through online platforms. The (initial) philosophy of MOOCs were to open up quality education to a wider audience. As such, MOOCs are an important tool to achieve Goal 4 (“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”). SDG Dashboards (2018) provides the latest updates (detail in Appendix) of SDG 4. Here, the study will provide a roadmap for achieving the 10 targets (7 outcome targets and 3 implementation targets) which constitute SDG4 (Quality education) through using E-learning and related means. By reviewing related studies, cases, events the study tried to summarize that, how the MOOCs help to achieve each targets of SDG 4. The findings are summarized as below:

Seven Outcome Targets

4.1 Universal primary and secondary education

By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Access to a basic education (Primary and or secondary) is the fundamental right of every child on earth. Educational access increased enormously in the past century. Illiteracy fell dramatically and a higher proportion of people are completing primary, secondary, or tertiary education than ever before. Despite this progress, however, in some parts of the world, this privilege appears to be far out of reach. There are approximately 57 million children who do not attend school, due to living in remote or conflict-affected areas, or caring for sick parents or orphaned children. Moreover, the numbers of children needing secondary schooling are considerable. Some 400 million children from 12 to 17 are not in school (Binder, 2006). While MOOCs will never completely replace formal schooling, still it is a valuable tool available for those limited by the constraints of having to be somewhere at a specific time and place to attend classes. MOOCs can shift the way in which education is delivered and accessed, and assist students in remote and regional locations to obtain a basic/fair education.

For example, MOOCs are now used as a means of making education more accessible to the African continent, regardless of gender, race, religion or geographical locality. Some African countries are using ICTs to create new avenues for access to schooling for the underserved communities and vulnerable groups (Clement Dzidou, 2010). As documented in the accompanying background paper - ‘An Analysis of the Role of ICTs to Achieving the MDGs-A Background Paper’, a number of the African countries including Rwanda, Ghana, Ethiopia, Nigeria, South Africa, Algeria, Tunisia and many others are implementing various forms of MOOCs programs and initiatives using ICTs to improve and widen access to educational resources in a number of ways including: improved access to learning materials and resources, widening of access to education through MOOCs etc. A number of these initiatives are contributing to promoting universal primary education in a number of these countries.

4.2 Early childhood development and universal pre-primary education

- By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

Basic education builds on preschool education and education in the family. It is the only stage of education, that all pupils have to. Basic education is divided to primary education and secondary education (J. Tupy & J. Jerabek, 2007). Quality early childhood development and pre-primary education so important to following education of a child. MOOCs can be handy in that particular time of education. Studies have shown that children learn by using their senses. It is assumed that the sense of sight and hearing are the most important senses in the learning process. **Shepherd Chimururi**, the executive director of an audio and visual learning company in Zimbabwe, observed the positive impact of both audio and visual elements in the classroom. When he compared the abilities of two children, he realized that the child who had watched a video of a trumpeting elephant had a longer lasting and clearer image of the scenario than the child who had only seen a picture of the elephant. MOOCs has this positive impact on learning because children develop better hand-eye coordination and motor skills. These skills help them to form clearer images and improve their capabilities to solve problems. Besides learning skills, MOOCs can help children to develop emotional and social skills. MOOCs can have a powerful impact on children's behavior. **Christopher Pappas**, founder of The Industry's Network, explains that MOOCs software that uses bright colors and images can increase the engagement of learners. In practice, children are more motivated to learn when they see an interactive and colorful screen in comparison to a boring black and white map on paper. MOOCs platforms also provide a range of multimedia tools which help children to communicate with other children and teachers. Through cooperation and interaction, kids learn new topics more easily and have better insights (Anne Steinhoff, 2016).

Many digital tools enable the connection between two children, two countries, and two cultures. For example, Glovico is an organization which offers real-time courses with native teachers. A connected device and Skype are sufficient to link a child in a developing country with a native teacher anywhere else in the world. Moreover, Glovico is a Social Businesses which operates specifically in developing countries. Glovico permits people from developing countries to be teachers and earn additional income and enables children to get foreign language classes from home.

4.3 Equal success to technical/vocational and higher education

- By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

That particular target asserts that, It is imperative to reduce barriers to skills development and technical and vocational education and training (TVET), starting from the secondary level, as well as to tertiary education, including university, and to provide lifelong learning opportunities for youth and adults. The provision of tertiary education should be made progressively free, in line with existing international agreements.

Vocational and Technical Education (VTE) is one of the manpower development programmes of study that is attracting the attention of various countries around the world. MOOCs have changed the face of education, training and vocational learning forever (Draves, 2002).

Ueno, Maomi (2004) conducted a study that, proposes a model of transnational technical and vocational education and training (TVET) delivery through the use of MOOCs. The results from this trial indicate that the use of MOOCs is a very efficient method for delivering TVET between countries and in promoting communities of practice. In the study of Muhammad Bappa-Aliyu

(2012), which aim to assess the Necessities of integrating MOOCs in Technical and Vocational Education, the study concluded that MOOCs is so significant that no any TVE program can afford to neglect, thereby recommending its full implementation in all areas of TVE and practically oriented courses. The use of interactive electronic media has proven advantageous in recent study on vocational and technical education students and even seen as a solution to shortage of staff and materials in the field (Karahocaa, et-al, 2010). Eventually, MOOCs is the right direction to move towards for TVET institutions in developing countries. There should also be gradual investment in MOOCs in developing countries in order to increase prospects of future growth and development in these economies. *TVET systems in Africa are slowly and steadily also starting to move towards implementing MOOCs in their teaching learning process* (Edwin Obwoge, M., & Stela Kwamboka, O. 2016).

4.4 Relevant skills for decent work

- By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Today, the young people who represent the world's most dynamic human resources are almost three times more likely to be unemployed than adults. Young people aged 15 to 24 make up 18% of the global population but 40% of the global unemployed. (Silvia Montoya, 2018). Here TVET is also crucial, because it is estimated that 80% of the jobs undertaken worldwide require technical and vocational skills (UNESCO 2005).In 2016, according to the U.S. Bureau of Labor Statistics, workers hold a job for an average of 4.2 years before moving on. And 35% of workplace skills in all industries are expected to change by 2020, according to the World Economic Forum (Forbes: William Arruda, 2018)

MOOCs can be useful ways to improve access to skills training (ILO). According to Karmakar (2000), MOOCs creates opportunities for organizations in the following ways: save time, cost, and effort; satisfy educational needs from remote areas; provide self-learning opportunities; have a positive impact on the learning process and provide a mechanism for collaborative learning which leads to relevant work for generations to come. MOOCs can be raised as an alternative way for making education accessible and for providing scope for skill-based education at a minimum cost. In fact, MOOCs, in particular, can play a significant role in transforming and empowering the vibrant adult population of a country into productive human resources by providing need-based training and equipping them with need-based skills, which are necessary for maintaining a decent standard of living. (Ritimoni Bordoloi, 2018). Across the world, health workers are using ICTs as a medium of MOOCs to remind parents about their children's vaccinations; farmers are using them to market their crops; and once voiceless people are coming together as never before to make their voices heard.

4.5 Gender equality and inclusion

- By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

The primary objective of the MOOCs is to provide knowledge and skills to those who did not have access to learning. MOOCs contribute to remove gender equality by giving women and girls improved access to education (Patru, Mariana; Balaji, Venkataraman, 2016). Students with disabilities, rural students, students with parental responsibilities and job holders are populations

who now have increased access to higher education due to MOOCs. Access limited by the location of the student, life circumstances that cannot be changed, or responsibilities that cannot be ignored, no longer act as barriers to higher education (Susan L. Renes,2015).MOOCs/e-teaching for students with disabilities provides the e-environment for them to learn (Bjekiu et al. 2012). Today, e-education (MOOCs/e-teaching is the central part of e-education) of students with disabilities is already widespread (Barrett, 2011). In India, Indira Gandhi National Open University (IGNOU), they established some Special study centers for some identified groups (Women, Minority community, physically challenged, rural community Residents of Remote and Isolated areas, Scheduled Castes, Scheduled Tribes 9. Jail inmates) those are not in formal education. The Study Centers are using successfully MOOCs mediums to make them include in education. So, MOOCs tool ensures easy access to education for all in turn promotes inclusive education.

4.6 Universal youth literacy

- By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

Literacy continues to be a pressing global challenge: nearly 760 million adults worldwide are illiterate and up to 250 million children are not acquiring basic skills even though half of them are in school. This data also shows the urgent need for imparting education to millions of people living in this world. But can new digital technologies finally help crack the literacy problem? Therefore, democratization of education is an absolute necessity so that everyone can get equal opportunity in education without any bias and differentiation. However, for proliferating the benefits of education, there is an urgent need to reduce the disparities present in the Indian education system, and make education accessible in the real sense, so that everyone irrespective of caste, class, religion, sex, place, occupation, etc. can avail the benefits of education.

MOOCs is particularly useful for inspiring young students to achieve these benefits. MOOCs can help students transcend the limitations of their geographic locations, conquer their financial difficulties, overcome time constraints, solve their problems and better their lives in every imaginable way. At present in India, Study Webs of Active learning for Young Aspiring Minds (SWAYAM), has been introduced by the Ministry of HRD, GOI, where teachers from institutions like the IITs, IIMs, and central universities have been offering online courses to the citizens of India to inspire and include youths to have educations.

4.7 Citizenship education for sustainable development

- By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

MOOCs is the unifying term to describe the fields of online learning, web-based training and technology-delivered instruction. Nothing is changing as fast as all the terms related to MOOCs. It is evident that MOOCs has transformed our society as 'knowledge society' (Claudia Blezu, 2008). Through the online media people are getting updates from all around. Different online educational platforms, Data banks, portals are helping students to get knowledge in different aspects like Education, Economy, Social, international issues. Through the rooming online platforms, a learner can learn any aspect as he/she likes with no time, thus got the necessary knowledge, information and facts of the esteemed area of learning.

Three means of implementation

4.8 An Effective Learnings environment

- Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

MOOCs can become a great addition to the traditional learning process, making it more diverse and allowing students from all over the world to gain additional knowledge about certain subjects. However, it's important to develop both types of educational technologies equally and learn how to combine them in a most effective way in order to get the best results. Today's learners want relevant, mobile, self-paced, and personalized content. This need is fulfilled with using e-leaning; here, students can learn at their own comfort and requirement. The time required to learn through MOOCs is reduced to 25%-60% of what is required in traditional learning. As eLearning is a paperless way of learning, it protects the environment to a lot of extent. As per a study done on MOOCs courses, it has been found that distance-based learning programs consumed around 90% less power and generated 85% less amount of CO2 emissions as compared to traditional campus-based educational courses. With eLearning, there is no need to cut trees for obtaining paper. Thus, eLearning is a highly eco-friendly way of learning. MOOCs delivers following benefits which are very crucial to build a proper learning environment: Online learning Accommodates Everyone's Needs, Lectures Can Be Taken Any Number of Times, offers Access to Updated Content, Quick Delivery of Lessons, Scalability, Consistency, Reduced Costs, Effectiveness, Greener approach, flexibility and Less Impact on Environment etc. Due to the wide set of benefits it gives to students; MOOCs has become quite popular and appreciated among students all over the world.

4.9 Scholarships

- By 2030, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries

In line with the SDG4 -Education 2030 focus on equity, inclusion and quality, scholarships should be transparently targeted at young people from disadvantaged backgrounds. With tuition rates raising an average of 3.5% every year, scholarships are one of the best ways to reduce these growing costs and scholarship search platforms exist to help students find the most relevant one. Online platforms are the easiest way to search and apply scholarships worldwide. Though there are few steps or actions still prevailing in the path of scholarships but these are minimal, we should say. Communicating with concern professor, having information of scholarships, preparing proposal and related works are getting a piece of cake than before through extensive use of online platforms.

4.10 Teachers and educators

- By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

'MOOCs have the potential to revolutionize the way we teach and how we learn' (DfES, 2003). Over the past years, MOOCs has become a vital source of expansion and studying in education. Due to the opportunities created by MOOCs, teaching and learning can now happen at any time and in anywhere. The explosive growth of the World Wide Web (WWW) has made information technology a popular platform for providing e-service, MOOCs service (Richard & Haya, 2009; Fry, K., 2001). MOOCs could be an effective tool for transferring knowledge and it has a potential to overtake the traditional teaching method. Web-based training helps facilitate learners and instructors in educational environment. Tao et al. (2006) really thought that this new learning environment was centered on electronic networks had found a way for undergraduate to have learning schedules that is more suitable for them as well as separate from other students (Tao, Y. H., Yeh, C. R., & Sun, S. I., 2006). With the developing of computer and Internet technologies, this technology has a high interaction and collaboration level between instructors or lectures and peers than traditional environment for learning (Giddens, A., 2001). Hence, MOOCs system might be able to deliver a broad array of solutions to enable learning and improve students' performance. There are numbers of advantages for using this technology and learning materials in the university classroom (Hassan, M. S., 2007): More active learning class, Diversified teaching method, Better student attention and realization, Effective time management for lecturer's, and Visual stimulation. The major advantage of MOOCs lies in its flexibility and ability to cover distances. The curriculum can be repeated until it is understood by the students. Hence full time and part time undergraduates can take part in their degree courses selected from any place or location so students can gain multiple learning ways depending on their needs (Aggarwal, D., 2009).

Above analysis clearly exerts that, MOOCs certainly a handy way to attain every targets of SDG 4 and eventually the Sustainable Development Goals (SDGs).

5. CHALLENGES TO ATTAIN SDG4 THROUGH MOOCs:

Just as a glass may be half full, it may also be half empty. MOOCs do have its pros and cons. The pros are mostly focused on the availability, low costs, and flexibility of the whole process. The cons, however, are mostly about the personal and emotional factors. Thus, the challenges to attain SDG 4 with using MOOCs are:

- Since MOOCs is based on Internet technology and it creates a virtual "class room" for the students; therefore, it depends on Internet connection. Also, this technology requires students to have a massive technical skills and Internet connection with high bandwidth to download the materials from the courses and upload their tasks or work with e-system.
- Tsai and Weng's (2015) study pointed out that social support from mentors and peers (usually a neglected factor) has significant effect on students' learning satisfaction; also, family support affects students' continuous intentions to participate online courses. Therefore, MOOCs may possibly deteriorate institutions' role of socialization. Traditional education allows students to socialize, to make new friends, and to learn something more from their professors. With MOOCs, this can be hard (if not impossible) to achieve. That's why some students might feel isolated and deprived of support.
- Since tests for assessments in MOOCs are possibly done with the use of proxy, it is very difficult to regulate bad activities like cheating.
- MOOCs depend on technology a lot. Therefore, equipment failure is an obstacle to implement proper MOOCs.
- Cloud computing facilities are not familiar to each and every one. But these are the mighty way to implement successful MOOCs system.
- While MOOCs might look like a learning tool available to anyone, in reality, it's not. Not all people have stable internet access and computers that are powerful enough to support online streaming.

- Some might have all the necessary technologies but struggle with using it. For example, older students might find it hard to master all the newest tech gigs. This problem, however, can be solved by offering them some proper tutorials.
- Being able to learn at a comfortable pace and organize your learning on your own is a disaster for some students. While some people are good in self-organization, some cannot do this without having a clear deadline on writing a term paper and the need to report their progress to the teacher. Some can do so but still feel better working and learning around people because it motivates them more.
- The feedback is one of the biggest drivers of students' progress. The students are able to improve only when they know their flaws and weak points. While online instructors do give students feedback, they still might not have enough time to work with them properly, explaining every detail. This could lead to some students falling behind, having gaps in their knowledge, and not completing the course successfully enough.

6. POLICY RECOMMENDATIONS

- Today, still only 47% of the world's population has access to the internet. In some regions, such as the Arab States and the Asia-Pacific, the rate of internet access is even lower—and in Sub-Saharan Africa, that figure is a dismal 25%. Even for those who have access, the reading material on the internet is of widely varying quality, while digital devices pose their own problems of use and abuse.
- It must be noted, though, that MOOCs will require some technological skills for students and teacher. Moreover, ability for collaborative work and autonomy are necessary, to avoid isolation.
- A considerable investment of time and effort, especially in the case of the teacher, is needed. This will help to ensure the involvement and commitment of all students.
- Compared to traditional teaching, students acquire a greater role. More participation and responsibility is expected from them. This requirement of discipline from the student will teach him to develop habits and skills such as managing your time, motivation and organizational skills, all of them vital to the workplace.
- MOOCs must be linked to the core policies and strategies of education and research.
- Training should be provided to the facilitators, teachers and all concerned officials of regarding proper use MOOCs.
- Above all, government needs to develop a MOOCs Policy to provide support for the deployment of digital technologies and affordable broadband and Internet services across the length and breadth of the country to address the “digital divide.”

7. LIMITATIONS AND SCOPE OF FUTURE STUDY

The paper gives an overview of some of the existing initiatives that were taken to aid in achieving SDG 4. The impacts of MOOCs on sustainable education were illustrated thoroughly and shown the importance of MOOCs as critical success factor for achieving the SDG 4 eventually all the SDGs. But, the study was solely based on secondary data. It could be better to impart some primary data with respective respondents to generalize the implications of the study.

8. CONCLUSION

At a special UN summit in September 2015 world leaders adopted a new vision for global development: “Transforming our world: The 2030 Agenda for Sustainable Development. The Sustainable Development Goals provide a ‘recipe’ for countries to be productive and prosperous, resulting in populations that are well-educated and well-equipped for employment in the 21st century. Education plays in developing the knowledge and skills of people for a socially

progressive society and a vibrant knowledge-based economy (Council of Ministers of Education, 2012). Education for Sustainable Development (ESD) empowers people to change the way they think and work towards a sustainable future" (UNESCO). ESD is the process of equipping students with the knowledge and understanding, skills and attributes needed to work and live in a way that safeguards the three dimensions of SDGs as: environmental, social and economic wellbeing, both in the present and for future generations.

And, MOOCs can facilitate as well as strengthen the education to a significant extent. It is because MOOCs can easily provide quality education and global learning at the doorstep of the people at a cheaper cost. It also encourages people to share their knowledge and innovative thoughts by using various means of MOOCs in a wider context. The cons of MOOCs, however, are mostly about the personal and emotional factors. Most of them aren't critical and can be easily fixed with time. Thus, MOOCs surely works as critical success factor for achieving the SDG 4 eventually attaining all sustainable development goals (SDGs).

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BLOCKCHAIN: ITS MEANING AND VALUE FOR INFORMATION AND LIBRARY SCIENCES

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ABSTRACT:

Technology provides supportive tools to improve and enhance our lives. Currently, one of these tools is the blockchain. Blockchain could be defined as an architecture to establish networked applications between the joining parties. With its theoretical structure, solid, alteration-protected system and applications can be built. Through that, users can access knowledge without hesitating to trust its source. Accordingly, any person can upload any written content to the blockchain, which in return suggests a new, decentralized way of recording, storing and sharing data and information. In this work possible research and practical implications of blockchain will be discussed with a focus on library sciences and social media.

Key words: Block-chain Architecture, Intellectual Property, Authentic Works, Library Services, Media Content

1. INTRODUCTION

Technology itself gives supportive tools to build up and enrich our modern lives. If it is taken as so-called technological fashion, we may divide the evolution of the computer science into several eras. Between 50s to 70s that was Artificial Intelligence (AI), between 70s to 80s that was Personal Computers (PCs), in 90s that was Internet, in 2000s that was mobile Phones, in 2010s that was the mobilized Internet and currently it is blockchain smart contracts and also AI, again.

From an application developer perspective, blockchain could be defined as an architecture to establish networked applications between the joining parties (Bogner, Chanson and Meeuw, 2016). Speaking of what would come from this structure is the possible inter-applications transparency, the applications would know the existence of each other. Think about an architecture that help to keep track of all the data records and meta information of the application, this will lead to no redundant work, no redundant content. This will help to understand and explain why the applications created and why the digital content is being exist.

From the information and knowledge management perspective, people can easily know each other, and a smart system can easily create semantic connections based on a blockchain. From a computer scientist perspective, it could be defined as a complex linked list, which every chain is connected with previous chain ring, and it is created over its previous chain rings. (Hamida, 2017). With its theoretical structure, solid, alteration-protected system and applications can be built.

Until now, the software engineering has been evolved for applications that were created by the organizations, the teams and also individuals. The most well-known and currently in use tools could be presented as life-cycle models (a wide variety of, from classical to agile, (Sommerville, 2015)) and standards such as IEEE's Software Project Management Plan (SPMP) (IEEE,1998), Software Design Description (SDD) (IEEE 2009) and Software Requirements Specification (SRS) (IEEE,1998). The base tools have been evolved since the 70s. Even with the current structure, software engineering discipline suffers for not being a solid, very well-defined engineering discipline to give direct solutions to the different projects (Brooks, 1986). In this perspective, a new challenge is near for the Software Engineering, the so called blockchain based development and unfortunately, the discipline is not ready for this challenge. However, for the scientists, who are currently working under the title of software engineers and related disciplines

such as information technologies, management information systems etc., this also brings new opportunities to continue on research.

At the moment, even the blockchain seems to concentrate on financial applications, its potential has been grown with the implementation of smart contract into specific systems architectures built over well-known blockchain projects such as Ethereum (Ethereum.org, 2019), and Hyperledger (Hyperledger.org, 2019). In this environment, for the sake of coming new software engineering challenges, it is required to look at from a scientific perspective.

2. CURRENT POTENTIAL RESEARCH SUBJECTS ON BLOCKCHAIN:

Currently every well-known Information Technology (IT) companies, (such as Facebook, Oracle, SAP, among others, try to build up their own blockchain structures and teams to answer coming demands from their customers. There are many magazine news available on the social media and blogs. However, these are not formally announced by the companies.) Based on our research, the required areas could be listed as follows:

2.1. Development methodologies:

Current development methodologies focused especially answer to the demand of organizational requirements. It could be structured based, object oriented based or even component based. All applications and systems could be created through classical models such as waterfall etc. to contemporary models such as spiral model, among others. (Details of development model and methodologies are out of the scope of this paper, however as given as reference, Sommerville's Software Engineering is one of the main course books). However, for the blockchain based applications, there is not any predefined models. From the scientific perspective, this subject is open for studies.

2.2. Standards:

From the software project management, there are three main standards available, SPMP, SRS and SDD. These standards are very well defined for the solo applications. In an environment, every applications, systems and users know each other, these basic standards also required to be updated. Also, specific requirements will be need based on the specific sectoral requirements.

2.3. Data, information, knowledge and content management:

Currently data management mostly structured over Relational Database Management Systems. To answer the requirements of transactions, NOSQL oriented databases also started to be in-use. In a blockchain structure the following questions rises such as, how to carry previously created data into a blockchain, how the simple CRUD operations will be executed and especially, how a search mechanism such as in search engines currently is run, and how this system could be implemented to maintain digital copyright and intellectual rights. To answer all these questions, new algorithms and best practices will be also researched. Through that, users can access knowledge without hesitating to trust its source. Accordingly, any person can upload any written content to the blockchain, which in return suggests a new, decentralized way of recording, storing and sharing data and information.

2.4. Security:

Even the currently whitepapers explain the blockchain as the most secure environment, there will be always breaches. This is also another area of study which will require special attention. Especially with a current development in the Quantum Computing, old blocks of the chain rings that were encrypted without Quantum Computers will be opened for possible issues.

2.5. Operating System:

Ethereum is advertised as a “big distributed operating system”. From this perspective, this will also require studying on subjects of the basic operating systems concepts and the applicability of current best practices.

2.6. Distributed Computing:

Not only just for the mining purposes, but also computational purposes, there is a big architecture that will be available for the researchers. Especially with the current CPU and GPU based distributed computing, a blockchain, which will combine all the system architectures could be part new studies.

2.7. Application Development Framework:

From Microsoft’s .Net Framework, Sun’s (or currently Oracle’s) Java Virtual Machine (JVM), Google’s Android platform the Apple’s IOS, the separate framework are available for the developers. There will also specific platforms, cross-platform development toolkits or the updated platforms concentrated on the work over blockchain platforms available. The question rises, is it possible to deploy them through a specific platform..?

2.8. Application:

Theoretically speaking, currently every application developed previously with other structures can be deployed to blockchain. Applications also will be evolved to work on this architecture.

2.9. Business Processes:

Processes are very important for the organizations to keep alive in the business world. From a document management system to supply the requirements of the main functional processes of the organizations, several different business process oriented systems have been developed. Blockchain and smart contracts actually in development for the inter and extra organizational processes between organizations and their stakeholders.

2.10. Artificial Intelligence:

Deep learning and information retrieval requires high computation power. With the power of interconnected systems, each party can easily act as a nerve of the nervous system. This means, for the real game changer AI application, blockchain would be the establisher.

3. THE BLOCK-CHAIN USE TO ENSURE INTELLECTUAL PROPERTY AND AUTHENTIC DOCUMENTS (A PLAGIARISM TOOL TO BE UTILIZED IN LIBRARIES):

Whether it is a so-called possible technological fashion, blockchain, the architecture to establish networked applications between the joining parties, provides the theoretical structure, solid, alteration-protected system based on which applications for library sciences can also be built. Through that, users can access knowledge without hesitating to trust its source. Accordingly, any person can upload any written content to the blockchain, which in return suggests a new, decentralized way of recording, storing and sharing data and information. For libraries and other knowledge-intensive institutions it could also be used to build a metadata system and an enhanced network, which could keep track of ‘digital-first sale rights and ownership’ and support ‘community-based-borrowing’, skill-sharing and gamified skill-training initiatives. More particularly, law libraries could use it to dedicate a unique digital place at which the most recent and authentic versions of their legal documents are existing. (SJSU 2017a, b, Brown 2018)

One of the particular areas interlinking blockchain systems and intellectual property, where users that benefit from library or data center services are required to entrust the knowledge, is the creation and dissemination of academic works. In this domain, for instance, the written work is very important for academicians to prove their works to other academicians. To do so, what is expected from academicians is to address properly the sources they use, while writing down their research. If academicians do not make proper referencing, quoting and citing, and just copy and paste what was previously done as if it was written by themselves, it is an unethical practice and called ‘Plagiarism’.

Currently while there are certain tools to check the originality of the academic writings against plagiarism, none of these particularly work over a blockchain architecture.

4. FUTURE WORK AND CONCLUSION:

Accordingly, a system proposal could be presented to build up a system for checking the Plagiarism level of the academic writings or other creative outputs that will work over a blockchain architecture. As a proof-of-concept, this block-chain-based plagiarism system will ensure utilizing authentic versions of academic works or other mediacontent for ‘knowledge workers’, to be provided as a library service. The suggested block-chain based architecture for libraries and other knowledge-intensive institutions can then play a crucial role to ensure the authenticity and trustworthiness of any content at social media, as a significant component of media literacy to pave the way for truth, accuracy and freedom of information.

All these areas suggested in this paper could attract the research interest of the scientists in different fields, however before creating a well-established system environment, proper standardization is required. Accordingly, the standardization of the blockchain from the perspective of platform independent software application development is also another area of future research.

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TRUTH AND ACCURACY IN NEWSPAPER ARCHIVES: COMMENT ON UAE HISTORY SOURCES

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ABSTRACT:

This paper addresses two issues. The first one relates to the quality of newspaper archives as reliable sources of historical information about the United Arab Emirates (UAE). Newspapers are expected to provide information and general knowledge and to build and develop knowledge bases. The involvement of Westerners in the history of the region makes New York Times (1851-2013) archive, the Sunday Times (1822-2006) archive, and the Times Digital Archive (1785-2006), the Times of India (1838-2002), Daily Mail Historical Archive, and Wall Street Journal (1889-1994) historical sources to depend on and use. The same newspapers also carried news and information regarding many happenings around the world. The second issue is a comment on user competencies in deciphering "Truth and Accuracy" while using archival newspaper library databases. This is connected to acquisition of information literacy (IL) skills with special reference to a specific university library. Usage statistics of archival newspaper databases are provided in demonstrating the extent of their discovery and access. The conclusion is that use of archival newspaper databases is accompanied by university-wide curriculum-related implications about the need to seamlessly factor IL into the educational and research agenda for the sake of truth and accuracy in historical research.

Key words: information literacy, digital newspaper archives, library anxiety, gatekeepers

1. INTRODUCTION

A chronology of the formation of the UAE is well documented in the New York Times (1851-2013) archive, the Sunday Times (1822-2006) archive, and the Times Digital Archive (1785-2006), the Times of India (1838-2002), Daily Mail Historical Archive and Wall Street Journal (1889-1994) newspapers. This refers to the period ranging from the Trucial States which were tribal confederations in what the British referred to as the "Pirate Coast" (Persian Gulf), to the independent Sheikdoms in 1971 and after. Originally, they were signatories to treaties (hence "trucial") with the British Government, and all the developments are recorded in the archived newspapers. Friedman (2017) points out that this was a period of British military domination. According to Schwartz and Cook (2002, p. 18), "memory, like history, is rooted in archives." For that reason, the value of newspaper archives cannot be ignored, regardless of their shortcomings. However, Schwartz and Cook (2002) point out that "users of archives (historians and others) and shapers of archives (records creators, records managers, and archivists) add layers of meaning, layers which become naturalized, internalized, and unquestioned." Thus, when using the mentioned digital archives in the library, their contents are understood to be highly reliable, but must be critically read. Admittedly, Bingham (2010, p. 225) points out that:

although there was once widespread skepticism about using newspapers because of their doubtful accuracy and their ephemeral nature, ever since the 'cultural turn' and the increasing scholarly interest in language, representation and meaning, there are few who deny the value of newspaper content for understanding politics, culture and society.

Archival myth and neutrality is questioned by Schwartz and Cook (2002), but they do not deny their high value as historical information sources. Bingham (2010) expresses the misgiving that "despite their political, social and cultural importance, newspapers have not, on the whole, featured prominently in histories of modern Britain." The main reason quoted for this is the difficulty in accessing and using old print newspapers. That has since changed with digitization, so the status of their use may be gradually changing.

2. STRENGTHS OF NEWSPAPER ARCHIVES

While it comes easy to give negative comment about the quality of news in a newspaper, there is merit in stepping back and defining what *Truth* means. One must consider whose terms *Truth* refers to, i.e. whether it is the writer's or that of the subject of the writing. With digitized newspaper archives, finding information for use in historical scholarship has become less complicated because it is easy to sift through the old news electronically. Bingham (2010, p.227) makes the comment that "historians can now, after all, quickly and easily establish whether newspapers contain material relevant to their research questions". It is important to keep in mind that newspapers must highlight prevailing news at any point in time as a way of making sure that the past is not forgotten. On their part, historians and other researchers must therefore make the effort to use a variety of sources to verify and compare facts. The example of the formation of the UAE, when viewed from the mentioned archives, reflects the official narratives of the news writers. A typical conclusion summarizing the shaping of the UAE is expressed by Friedman (2017, p. 112) suggesting that:

ultimately, the seven-shaykhdom UAE was the result of more than three years of failed negotiations to unify the nine pre-state shaykhdoms. Thus, the formation of the UAE may be viewed as a success born of failure.

Whether that is how the citizens and responsible authorities viewed the situation or not, as reported in archival newspapers, is debatable. In fact, reading future archives of today's newspapers and media after fifty to a hundred years is likely to make fascinating research as patterns of fake news, truth, and accuracy emerge in retrospect, impacting the interpretation of current events. Ott (2017, p. 59) notes the emergence of a "post-truth, post-news, President Trump, Twitter-world" essentially highlighting the evolution from traditional news-making and reporting, which is represented by newspaper archives (exemplified by those mentioned above), to the addition of modern opinion-laden platforms and media. This implies an unfolding picture of a typical newspaper archive that future researchers will use. Schwartz and Cook (2002) point out the weakness of the tendency to document primarily mainstream culture and powerful records creators and "further privileging the official narratives of the state over the private stories of individuals," perhaps advocating the archiving of alternative news sources such as Twitter for posterity. But then, if complemented by an additional variety of information sources, truth can be verified so that any investigation of what is known about the past yields objective results.

3. SHORTCOMINGS OF NEWSPAPER ARCHIVES

The reason that Bingham (2010) mentions limited use of newspaper archives in researching British history is that researchers find access to them to be very costly. Previously the problem was to do with the tediousness of travelling to specific locations that kept the archives, and then the actual effort of paging through paper or microfiche or microfilm. Now the focus has shifted towards reliance on institutional access to digitized collections. Those archives are not necessarily available to wider readership. Thus, about UAE-related newspaper archives, when researchers need them, the only access is through libraries that have the archival database collections and resources to guide users how to effectively benefit from them in their search for *Truth*.

But then, in some cases, the news published in the newspapers could be erroneous for a variety of reasons. They reflect the perceptions of their creators who had (and still possess) a "gatekeeper" role (White, 1950). Even while Heinderyckx (2015, p. 254) explains that "gatekeeping used to be fundamentally about managing editorial space", some of the stories written may even have ended up being twisted and distorted, creating a bad impression of individuals, or a country, and completely removed from *Accuracy* and *Truth*. Schwartz and Cook (2002, p. 5) mention the "power over collective memory and national identity" that archival collections have. So if inaccurate, the impact is extensive.

Additionally, once published in print as the old collections were, they cannot be changed or updated because of their nature. This makes them rigid as news and information sources. When

read from an archive, such as those mentioned above, that represents misinformation, particularly if that coincides with information evaluation skills challenges. The information evaluation challenge is best controlled through an embedded and blended IL program to seamlessly guide students towards critically analysing what they read from newspapers so that they do not take given texts at face value. That limits the extent of some information ending up being misrepresented (as that in turn results in instances of false history and sometimes in distorted expressions of official stories rather than the real facts).

Another shortcoming is that in systematic content analysis, name variations are sometimes a challenge existing in the mentioned newspaper archives. For example, Abu Dhabi has variants such as *Abū Zābī*, *Abou Dhabi*, *Abu Dhaby*, and that has the potential to jeopardize the number of relevant retrievals from the databases even when indexing strategies keep improving. Additionally, the use of certain commonly used terms may not have been sufficiently appreciated or even been misunderstood in earlier newspaper reporting, e.g. a search for *wasta* (a frequently used term which loosely translates to "who you know") fails to give hits, meaning that accurate reports about social and business interactions that took place are not retrieved.

4. WHAT LIBRARY DATABASE STATISTICS REVEAL

Usage of the archival newspaper databases that one university library subscribes to is low to sporadic. Statistics used in the table below are obtained from accumulated library data representing the activity of a user population of approximately 10000 students, faculty, and staff. Table 1 reflects that regular subject or keyword searches take place, but actual record views are low, suggesting little usage of the material, i.e. not benefitting from what can potentially be retrieved. The Wall Street Journal (WSJ) archive reflects the least viewed records with three views in three years. That may indicate/ imply the extent of historical involvement and documented events relevant to the UAE from an American perspective, compared to Times Digital Archive which is British in origin, and appears to possess records that are viewed much more noticeably (with 5050 views from 2016 to 2018). On a comparative level, the Times Digital Archive seems the most used database of all six, followed by the Daily Mail Historical Archive (also British in origin) with 1272 views from 2016 to 2018. The numbers of document views still reflect low usage even where they are contextually the highest. Admittedly, archival newspaper database usage cannot be equal through the entire population since historical scholarship about the UAE does not necessarily cover the research scope of every academic researcher or enrolled student. All the same, use of the mentioned newspaper archives over the years 2016 to 2018 has been limited. This is demonstrated in Table 1.

Table 1: Searching and viewing records in six newspaper archive titles (2016-2018)

Years	Historical Wall Street Journal (WSJ)		Times of India		New York Times (NYT)	
	Regular searches	Record views	Regular searches	Record views	Regular searches	Record views
2016	3152	0	3076	3	3315	15
2017	3279	0	3280	1	3409	1
2018	4545	3	4599	1	4598	5
Total	10,976	3	10,995	5	11,322	21
Years	Daily Mail Historical Archive		Sunday Times Digital Archive		Times Digital Archive	
	Regular searches	Record views	Regular searches	Record views	Regular searches	Record views
2016	474	1010	435	225	2585	3278
2017	267	80	378	87	1890	835
2018	321	182	440	101	1029	940
Total	1,062	1,272	1,253	413	5,464	5050

Although low usage per se does not automatically signify bad archival resources, implications are on their relevance to research interests of the user community, to research focus in a UAE context, and the structure of the library IL program in relation to the curriculum. Concerning IL, it must be embedded in a blended manner to the curriculum for more user familiarity with the databases and exhaustive use. The approach is in line with the new *Framework for Information Literacy for Higher Education* (ACRL, 2015) which emphasizes knowledge and comprehension rather than solely the acquisition of specific IL skills. It proposes blending inquiry with practice-based experiences, promoting an adaptive understanding of the nature of information (Detmering, 2015). Usage levels ultimately have budgetary implications since the newspaper archives are database subscriptions. The statistics also reflect potential gaps in research, and that in turn impacts the alignment of facts as presented in the newspaper archives with reality, Truth, and Accuracy according to the nationals in the country and the region.

5. LIBRARY USE DYNAMICS DIVULGED

The statistics discussed above tell part of a story about newspaper archives and are applicable to other libraries too. While a library may have enthusiastic and knowledgeable librarians, researchers and students may sometimes miss the advantages of consulting with them. Kolowich (2011) points out that “to many students the idea of a librarian as an academic expert who is available to talk about assignments and hold their hands through the research process is, in fact, foreign to most students”. The fact that students possess a wide variety of IL skills upon entry into university only intensifies the situation. A point to note is that database usage is highly dependent on the extent to which faculty uses them and requires students to retrieve reliable documents from them for projects they assign, and course readings. Faculty-librarian collaboration is done and is not new as librarians all over the world have found it to be practical. Sometimes faculty at the university investigated create credit-worthy assignments demonstrating proof that a student has been attentive to the IL unit addressed by the librarian. But up to the time of writing this paper, that practice has been sporadic. Even worse is that some “faculty may have low expectations for librarians, and consequently students may not be connected to librarians or see why working with librarians may be helpful” (Miller & Murillo, 2012, p. 60). And yet, as Armstrong (2012) puts it, librarians can “provide faculty with updated information about library research tools and services that faculty may use in their own research and/or work with students” (p. 40). So, the low use of newspaper databases may be due to lack of skills or knowledge of their availability and content, or simply not acknowledging the research and consultant role of the librarians. Given the fact that when students come to university, they are in fact expected to master the correct and official history of their country, it is this author’s conviction that educators need to model the importance of relevant library database use and encourage librarian involvement to them.

Having pointed out the tendencies of library users, it is essential to also highlight the fact that sometimes librarians are the cause of library anxiety, i.e. fear or phobia of the library. Library anxiety as a concept was researched on by Mellon (2015), who explained that this is a fear of the overwhelming and confusing library space, as well as the process of using the library to find materials. The variety of database interface, particularly the digitized versions of old newspapers, can be intimidating. That may very often be aggravated by librarians’ inaccurate assumptions that everyone who visits or uses the online resources of the library understands how libraries work. Additionally, the use of such terms as “Boolean logic”, “primary sources”, or off-loading too much information, for example, need to be unbundled and explicitly explained so that the messages are understood, and users do not feel alienated. Otherwise the librarians, in a state of benevolent exuberance, end up being what is referred to by Bradley (1997, p. 20) as “unconsciously incompetent.” That is a position of genuinely trying to offer services only per what they have been trained but unaware of their lack of knowledge or expertise on how to

appropriately communicate in the host culture. So even with attempts to market the newspaper archives to faculty and students while monitoring usage, there may be a case for revision of communication methods to enhance database use instruction methods.

6. CONCLUSION

Two main discussions have been raised in this paper. The first is a consideration of newspaper archives as a source of truth and accurate information in relation to a specific country. The second is the role of the library in IL skills support for enabling library users to reach relevant information in their quest for *Truth and Accuracy* in historical research.

The conclusion is that on their own, newspaper archives cannot stand as the sole source of historical events about a place. While they very effectively provide accounts of life as it was taking place, their veracity is as good as any other current newspaper. The “gatekeeper” role of producers of the news brings in a certain level of subjectivity in the messages published. Retrieval of relevant news items can also be hampered by access capabilities of users and the content analysis processes.

Low usage of this set of resources may not necessarily be a negative attribute but has a bearing on the university’s research focus and strategy, research about the UAE’s history, curriculum and IL matters, as well as the library budget, and all those matters require re-visiting. That can enhance usage as well as the ability to navigate the resources. The library also needs to stay alert when it comes to user information habits that are reflected by the available statistics. There may well be a question of preference for print versus e-resources. In this instance, that becomes a challenge because these resources come as given, even though printing of selected required parts is possible. Low database usage statistics may be a symptom of other underlying factors. This paper gives hints at university-wide curriculum-related implications of the need to seamlessly factor IL into the educational and research agenda for the sake of truth and accuracy in historical research about the dynamics of UAE history.

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CONTRIBUTION OF INFORMATION LITERACY EDUCATION TO PUBLIC COHESION OF SYRIAN IMMIGRANT IN PUBLIC LIBRARIES

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ABSTRACT:

The numbers of refugees who escaped from the war in Syria and settled in Turkey have reached to 3,400,195 since 2011. According to the United Nations Refugee Organization (UNHCR) 2016 data, the Syrians are in the first place among the nations forced to leave their country in the World. According to the 2016 Global Trends Report Turkey is the world's most refugee hosting country, 98 % of which are Syrian refugees.

For many years, public libraries are not only places that provide information to people, but also public spaces that bring people together, educate, help, and give library services to all.

Rabert Taylor; defines information literacy as reaching information to solve real life problems, access to information from different sources, to ensure the continuity of information, know the strategies for when and how to obtain information. When refugees know the country they are migrating, know the rules and sensitivities of the country, and learn their rights and opportunities it would be supportive of social cohesion. Knowing how to reach this vital information when starting a new life in a new country; in other words to be gained with information literacy skills that will facilitate the adaptation of Syrian refugees to Turkey.

Migration is not the truth of my country. Turkey is the best example to deal with this immigration crisis. The benefits that information literacy offers to migration governance will inspire other countries.

Key words: information literacy, public libraries, migration, social cohesion

1. INTRODUCTION

Since the year 2011 to escape the war in Syria, the number of people who took refuge in Turkey has reached to 3.606.737 (according to the Directorate General of Migration Management data 20.05.2019).¹ According to United Nations Refugee Organization (UNHCR) 2016 data, Syrians are among the first nations to be forced to leave their country globally.² Global Trend 2016 report state that Turkey is the country that hosts the most refugees in the world and 98% of them is Syrian.

2. MIGRATION AND PUBLIC LIBRARY SERVICES

Public libraries in developed countries are regarded as Welcome Gate for immigrants and serve as a bridge for immigrants to social life. Because, libraries are the most important public places to analyze the society they are in, to provide free and equal service to meet the needs of the society and to improve the sense of unity and belonging in the society. Multicultural and multilingual services offered for migrants or refugees are part of the service offered by public libraries.

Libraries should conduct community analysis to meet the needs of their users. It is useful to re-evaluate the library design in the direction of the results of the analysis. Public libraries should ensure that both the space design and the services they offer are accessible and inclusive. Some of these services are listed below:

1. Simplification of library membership
2. Multilingual presentation of the library information and user manual

¹ http://www.goc.gov.tr/icerik6/gecici-koruma_363_378_4713_icerik

² The United Nations High Commissioner for Refugees-Turkey. (2016). Refugees and Asylum Seekers in Turkey, <https://www.unhcr.org/tr/en/refugees-and-asylum-seekers-in-turkey>

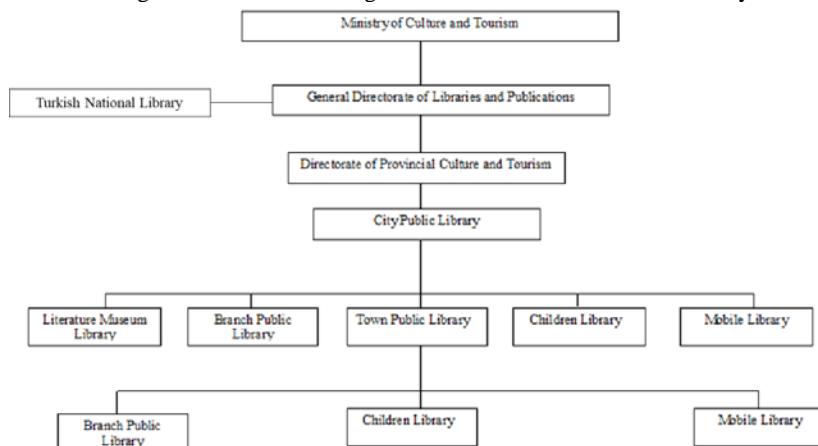
3. Providing services in Camps and Refugee Centers through Mobile Libraries
4. Posting of posters to encourage the arrival of refugees in libraries
5. Turkish Language Training Courses
6. Speaking Classes
7. Exam Preparation Courses
8. Help with Homework
9. Career seminars for young people
10. Refugee Rights Seminars
11. Multilingual story times
12. Computer Classes
13. Citizenship Trainings
14. Cultural Nights
15. Establishment of Multilingual bookshelves in Libraries
16. Book Clubs
17. Makerspace / Production Spaces Movement
18. Informing the community health centers and the library
19. Provision of printed and digital materials that refugees can teach Turkish to new refugees in libraries
20. Information Literacy Programs

3. PUBLIC LIBRARIES IN TURKEY

3.1. General Statistics

Turkey has a long tradition of libraries. Public libraries are administered by the Ministry of Culture and Tourism, Directorate General of Libraries and Publications (DGLP) in Turkey. Beside, there are also municipal libraries governed and financed by the local authorities.

Figure 1 Structure and Organization of Public Libraries in Turkey



Although there is no law governing the public libraries in Turkey, there are some regulations, most of which were revised in 2012, related to the services of public libraries: "Public Libraries Regulation," (Official Journal, 11.01.2012, 28170), "Public Libraries Tasks and Services Regulation," (Official Journal, 24.07.2012, 164493).

Table 1 Public Libraries' Statistics in Turkey

Public Library	1171
Children Library	56
Literature Museum Library	7
Mobile Library	53
Number of Users	25.091.232
Number of Members	2.201.039
Number of Books	19.993.613
Number of Loaned Books	10.443.581

3.2. Refugee Services in Turkish Public Libraries

According to the records of KOHA Library Automation System (retrieved on 25 April 2019), 20.993 foreign people became members of the public library among people who have received a residence permit for at least 6 months in Turkey.

When the members of the library are listed according to their nationality, it is determined that they are members of 103 nationalities and the first five countries according to the number of members; The Syrian Arab Republic, the Islamic Republic of Afghanistan, the Republic of Iraq, the Republic of Azerbaijan and the Islamic Republic of Iran. The majority of the foreign members are students. Children under the age of 18 are 39% of the total number of foreign members.

Figure 2 Top 10 Cities Where Syrian Refugees Have the Highest Library Membership



The distribution of the libraries of the Syrian library members according to the provinces where they are members and the map of the General Directorate of Migration Management on the distribution of Syrian Refugees are compared. It has been observed that Istanbul, Izmir, Bursa,

Hatay, Kilis, Gaziantep, Sanliurfa and Mardin are common. Mersin and Adana provinces are provinces where there is no crossing.

Figure 3 Top 10 Cities with the Highest Number of Syrian Refugees



In the border cities (Mersin, Hatay, Kilis, Gaziantep, Sanliurfa and Mardin) and in the center of Ankara province, a total of 27 public libraries were analyzed in 7 provinces. The problems and solutions of the employees of the library were discussed. According to research, the most important problem encountered in public libraries is language and socio-psychological problems.

Various studies are carried out in different countries regarding library services to support social cohesion. However, immigration is very different from other countries that have faced in Turkey. Therefore, different adaptation strategies are needed for our country. In this context, the studies that will contribute to social cohesion in our public libraries are categorized under 4 different groups: Language, Awareness Raising, Promotional Activities and Cultural Activities.

3.3. Information Literacy Projects

The rapid increase in the amount of information, the diversification of information access sources and the rapid development of technology have made it inevitable for individuals to have information literacy skills. In this context, the need for the implementation of Information Literacy Programs has emerged in public libraries serving as community centers.

In our age when knowledge production and consumption increased rapidly, although technological advances have facilitated access to information, it is observed that students have difficulty in the process of acquiring information literacy skills.

Increasing students' knowledge literacy skills; access to qualified knowledge, critical thinking, knowledge evaluation, use and transmission skills should be gained at school. Raising the concept of learning to learn instead of traditional teaching, it has increased the importance of being effective in the learning process, knowing the ways of learning and taking responsibility for learning. Although teachers contribute to the development of information literacy skills by directing students to various sources of information in print and electronic environment through research assignments, this method alone is not enough. In this context; librarians and teachers have a great responsibility, and in the process of gaining information literacy skills, teachers should work in partnership with librarians.

In cooperation with the General Directorate of Libraries and Publications of the Ministry of Culture and Tourism and General Directorate of Basic Education of the Ministry of National Education, studies on the implementation of Information Literacy Programs under the coordination of schools and public libraries are ongoing in Turkey.

3.4. Information Literacy Program For Refugee In Public Library

Within the scope of the Turkish Third National Council Action Plan, there is an action item on “the development of information literacy among children and young people.”

Furthermore, the activities carried out under the responsibility of our General Directorate within the scope of the Social Cohesion Strategy Document and the National Action Plan carried out by the Directorate General of Migration Management include “the provision of training activities on information literacy to immigrant children and families in public libraries.” In this context, information literacy studies conducted by our General Directorate were arranged to include the social integration process of migrants.

In addition, the public's access to information enables people to make informed decisions that can improve their lives. Communities that have access to timely and necessary information for everyone are better positioned to eliminate poverty and inequality, provide quality education, and support people's health, culture, research and innovation. Within the scope of the UN 2030 Agenda, the International Federation of Library Associations and Institutions (IFLA) believes that increasing the access to information and information across the community, supported by information and communication technologies (ICT) promotes sustainable development and improves people's lives.

Access to information is an issue that can support activities for all development areas. The information society is far more than an Internet connection. The library is the assurance that information and the skills necessary to use the information are accessible to all. Information literacy has a great importance in achieving the information society and achieving the sustainable development goals determined under UN 2030 Agenda. The access of the vulnerable groups of the society, especially migrants, to the right information is an important input in building strong societies.

In April 2019, information literacy awareness seminars were held in Aydin and Muğla in cooperation with IOM and DGMM in the social cohesion meetings of approximately 1500 migrants. These seminars emphasized the importance of accessing the true information. According to researches³, Turkey ranks first among countries most exposed to the false news. Therefore, the accuracy of the information obtained and the importance of interpreting the information is explained with examples.

4. METHODOLOGY

The purpose of the research reported in this article is to understand the information literacy practices of refugees and how these practices contribute to social inclusion by public libraries in Turkey.

Research objectives are to examine the barrier in the process of addressing their key information, to show how Turkish policies developed in order to sustainable services to refugees and to underline the role of public libraries in terms of information literacy and integration.

³ <https://teyit.org/>

4.1. Survey Instrument

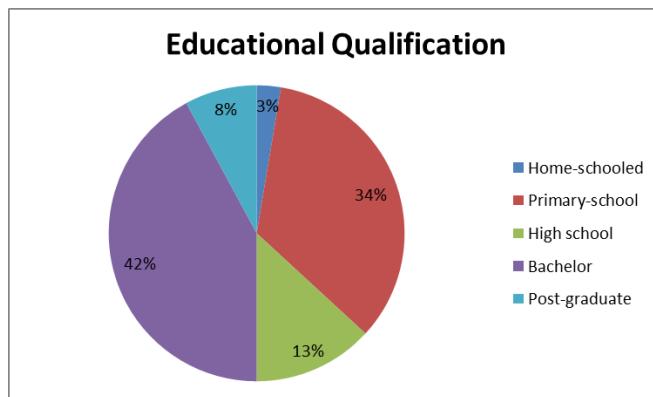
Instrument adapted from an article⁴ from IFLA WLIC 2017 survey instrument. Data was collected online via Google Forms. The study was announced via Kilis Public Library (18), Bursa (13) and Aydin (7) City Migration Office. The purposeful sampling approach was used through the announcement.

Participation was voluntary and participants could drop at any stage if they wish to.

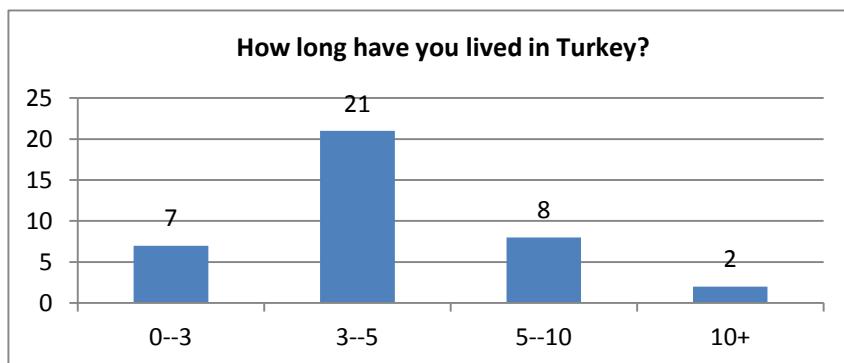
Questionnaire is composed of 18 questions. Different question types were used to understand phenomena of information needs of refugees.

4.2. Sample characteristics

A total of 38 people responded to the survey (N= 38). %47,4 of the participants were female (18) and % 52,6 were male (20). Age of participant differs from 18 to 45. The average of age is 24,4. Approximately half of participants graduated from primary school who is all from Kilis. On the other hand, %42 of participants was at university now.



%55,3 of the participant live in Turkey between 3-5 years.



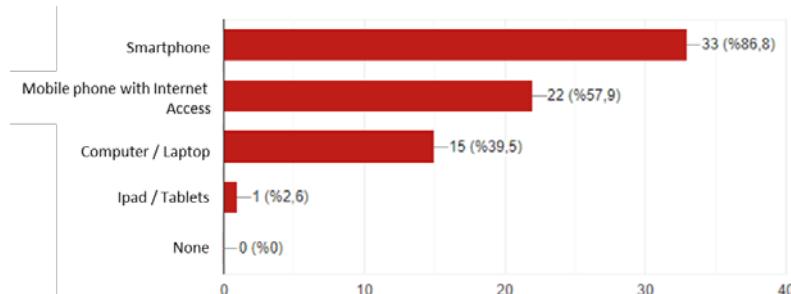
⁴ Zenab Ahmed (2017). Role of Information Literacy Services in Moulding Developing Countries into Knowledge Base Economies: A Case Study of Migrant Workers in Qatar. IFLA WLIC 2017

18 of participant are from Syria and settled in Kilis; others come Turkey from Azerbaijan, Africa, Palestine, Kazakh, Kyrgyz, Congo, Uzbekistan, Pakistan, Turkmenistan, Yemen.

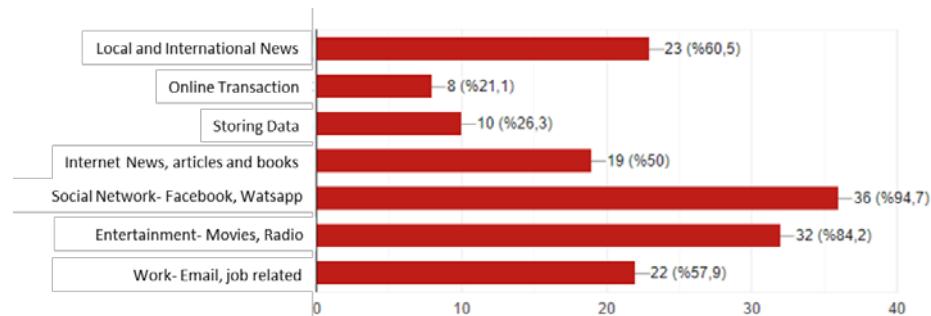
The participants were asked about their mother tongue. The mother tongue of 23 participants is Arabic. Other participants include 9 languages: Azerbaijani, Persian, French, English, Kazakh, Kyrgyz, Russian, Turkish and Urdu.

5. SURVEY QUESTIONS AND FINDINGS

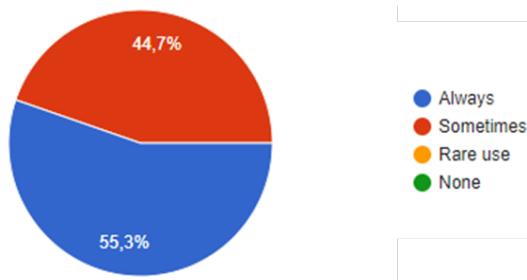
Do you own any electronic devices? (any number of answers)



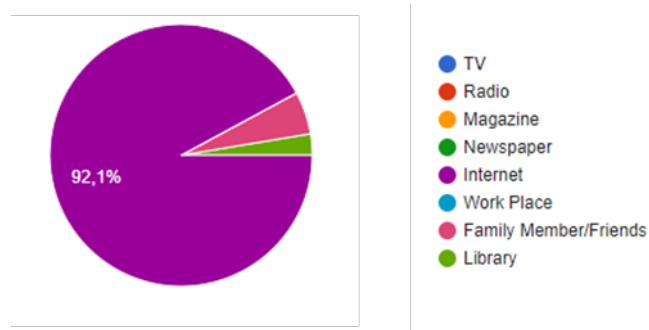
What do you use your electronic devices for? (any number of answers)



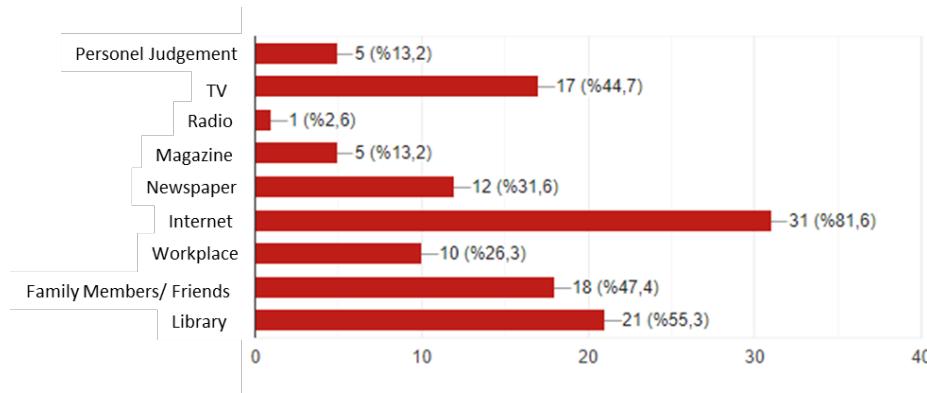
How often do you use internet for information? (One Answer)



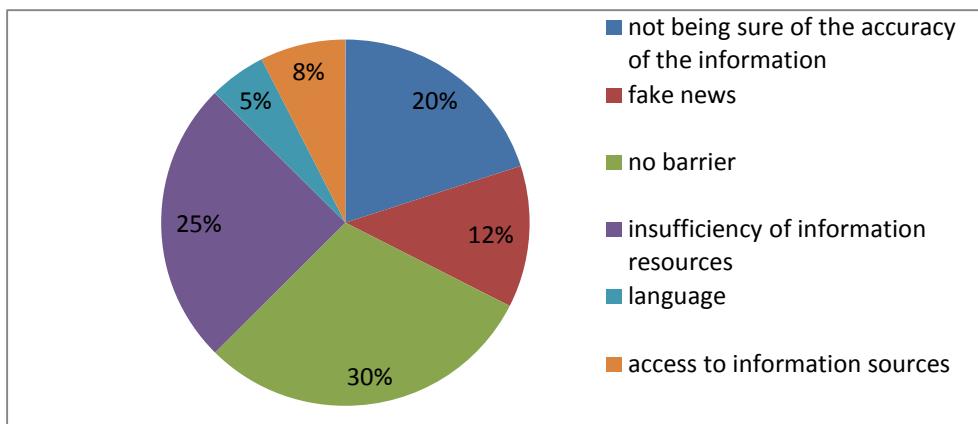
If you have a question, where do you first seek information to answer it? (One answer)



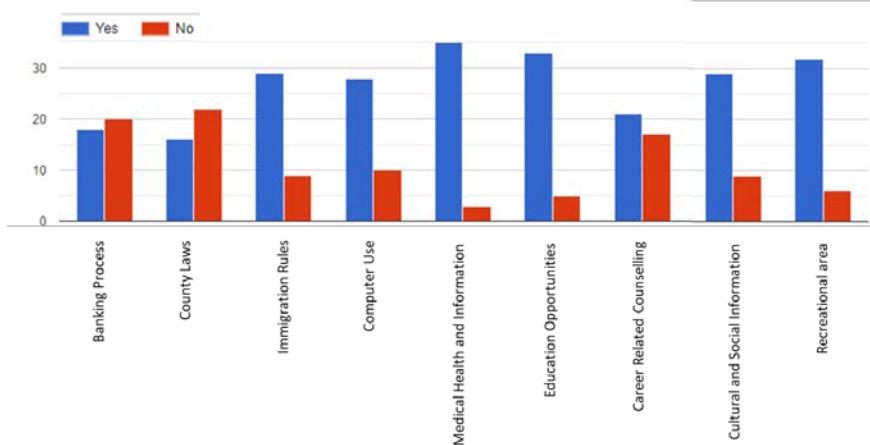
Which for you is the most reliable source of information? (any number of answers)



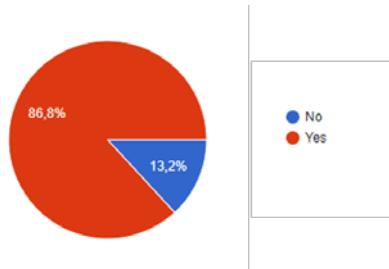
What are the obstacles you encounter in accessing the right information?



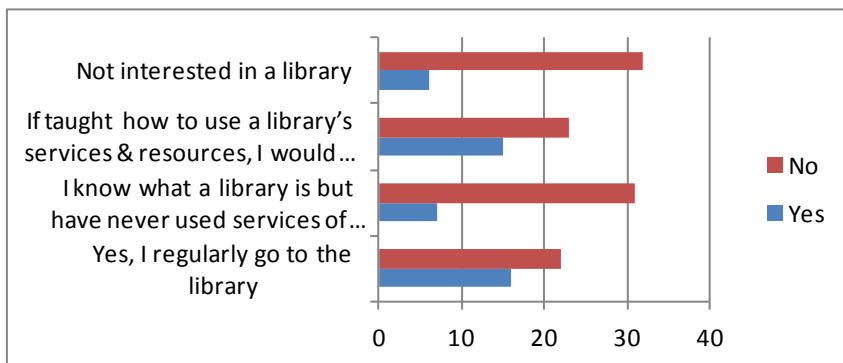
Which subject do you need information?



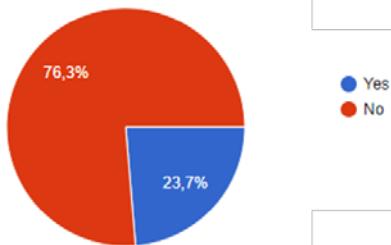
Is it easy for you to differentiate between a government document and a non-government document?



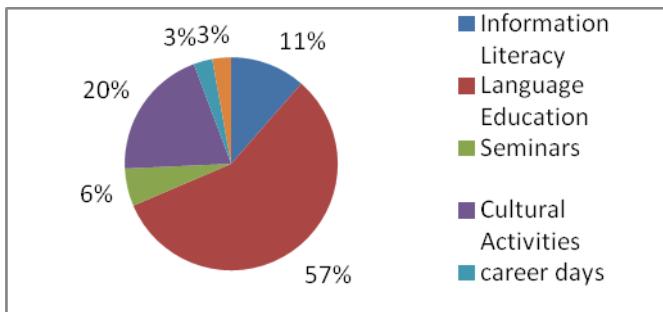
Have you ever used a public library before?



Are you a member of the Turkish public library?



What services would you like a public library to offer? (information literacy, language education, immigration laws seminar, cultural activities etc.)



6. RECOMMENDATIONS

50% of participants have lived in Turkey between 3-5 years. 86,8% of the participants have their own smartphone and they use it mostly for social media-facebook, watsapp etc. (94,7%) , entertainment-movies, radio etc. (84,2%) and local and international news (60,5%). More than a half of them always use internet for information. Even they have a question, they firstly seek it on internet (92,1%). 81,6 % of participants think that internet is the most reliable source of information. Libraries (55,3%) and Family member/friends (47,4%) are the following information sources for refugees.

Accuracy and insufficiency of informationnis the top obstacle the refugees encounter in accessing the right information. On the other hand, 86,8 of participants said that it is easy to differentiate between a government document and a non-government document.

Medical health, education opportunities, cultural and social information are the most needed information subjects.

Only 23,7% of them are member of libraries. They said that they don't have enough information about public libraries services. If taught how to use a library's services & resources, they would like to go to a library. Language education, information literacy program and cultural activities are the public library program that refugees demand mostly.

Social media and internet where fake news and negative discourses are faced intensely are mostly used by refugees. Turkey is the country most exposed to the false news. The fact that the first place where the right information is applied for refugees is the internet can cause problems.

As a result of this data, by providing sufficient information about public libraries, the levels of information literacy can be increased, concerns about misinformation can be reduced, language problem, which is an important obstacle to accessing the right information, can be solved and the library activities and social cohesion can be supported through refugees.

7. CONCLUSION

Studies, surveys and interviews have shown that the inclusion of refugees in the information ecosystem is critical to social cohesion. The development of information literacy skills will benefit migrants to be included in the social life and provide added value to the country in which they are located.

Public libraries have a major role to organize in order for information literacy programs to be accessible to refugees of all ages. Public libraries, widely used in connection with the central administration in Turkey, should be able to shape information literacy programs in accordance with the information needs of local people. In addition, there are actions related to information literacy in national policies on cultural and social cohesion in Turkey and in certain periods, monitoring and evaluation studies support the sustainability of the issue.

Turkey is exposed to mass immigration since 2011 should be regarded as an opportunity not a problem. When the right strategy and national policies are supported and the right investments are made, refugees (of which more than half of them are young) will contribute to the development of the country. Public libraries serve with an exemplary model of social cohesion and governance, taking into account inter-institutional co-operation and local community participation.

8. ACKNOWLEDGEMENTS

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I would like to express my deepest appreciation to my husband and my kids; Hüseyin Emir and Beyza Yavuzdemir for provided me with encouragement and patience throughout the duration of this research.

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Kültür ve Turizm Bakanlığı Halk Kütüphaneleri Yönetmeliği, 2017
Kütüphaneler ve Yayımlar Genel Müdürlüğü KOHA Üyelik Verileri

CITIZEN-CENTERED SMART PRACTICES IN PUBLIC LIBRARIES IN TURKEY

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ABSTRACT

Beside many organizations such as universities and non-profit government organizations, public libraries are the leading organizations to contribute to the social, cultural and economical development of the society and make social attempts with public value. Especially as public libraries are responsible for providing free service for all the segments of society without discriminating any social group, they have significant role in socio-cultural development phases of persons and they take more responsibilities in influencing society in a positive way. Accordingly, development of smart practice for the persons to attend a training on a specific topic can be considered as a social responsibility. Even if in most of the county and provincial public libraries in Turkey citizen-centered smart practices are at limited level, it is possible to identify smart practice examples in this field. Within the frame of this study, implementation of the citizen-centered smart practices performed in public libraries in Turkey and its results have been analyzed in detail in order to be an example for other organizations and institutions. 12 cases were selected from public libraries (Ayalik Country Public Library, Bornova Country Public Library, Düzce Provincial Public Library, Halil Hamit Paşa Provincial Public Library, Or-An Sevgi Yılı County Public Library, Trabzon Provincial Public Library and İskender Pala Provincial Public Library) in Turkey. These cases were handled and used within the frame of EduCitizens Educate to Participate Project, which is an Erasmus Plus Key Action 2 Strategic Partnership Project focusing on user and citizen-centric services. These cases were analyzed in terms of qualitative and quantitative metric. As part of our study it has been found that user centered smart practices will be disseminated in other organizations that will be contributed to the socio-cultural and economical development of the society.

Keywords: Public Libraries, citizen-centric innovative services, innovation in libraries, EduCitizens Project, Turkey

1. LITERATURE REVIEW

Innovation is a concept that is derived from the Latin innovates which is used in terms of doing something new and different, innovating and transforming and it has a meaning in Turkish referring to “innovativeness/renewal and renaissance (Yamaç, 2001). The importance of this concept is increasing each day. There are many definitions of the concept of the innovation. Some of the approaches to this concept have been listed below: Innovation is;

- A new or significantly improved product (goods or service) or process, a new marketing method or a new organizational method (OECD, 2006, p. 50),
- Presentation or use of a thought, vehicle, system, policy, program, product, service or process for the first time (Güleş and Bülbül, 2004, p. 125),
- An approach that is not only new but also useful, that can create value for the customer / user (Anthony, 2014, p. 1),
- Defined as a process that starts with the theoretical phase and is a product that includes the marketability of this product (Kavak, 2009, p. 618).

Within the context of public libraries, innovation is considered as a process, while the concept of innovative service within the scope of public libraries is handled in such four different categories as: (1) A completely new service, (2) Presenting an existing service in a new way, (3) A new service developed for the needs of the local area, (4) A new service resulting from the development / expansion of an existing service (Alaca, 2017, p. 66).

As the regional differences of public libraries in Turkey in terms of building, staff, user, collection and budget are indicators of the inequalities in terms of conditions, this situation makes it difficult to perceive the concept of innovation as an equal service for everybody. Within the frame of innovation management approach including the concept of innovative service, Önal (2015, p. 164), mentions that it will not be a suitable approach to recommend a specific innovation for every institution as such organizational characteristics as target group, field of service, budget, technological infrastructure will vary. Within this context, making different definitions of the concept will enable the appropriate way to be selected, which will therefore be innovative, rather than limiting it to one general definition or perspective.

It is possible to say that every application analyzed within the scope of this study, based on the concepts of innovation and innovative service within the scope of public libraries, can be considered as innovative at the regional level. On the other hand, the satisfaction of the users through the provision of users and implementations, the continuity of the applications and the marketing of the applications fulfill the requirements of innovation. Innovation is a process consisting of user satisfaction, continuity and marketing trilogy. It is not possible to create innovation if one of these phases is missing. Designing and implementation of the user-centered services within the frame of innovation will not only have a positive impact on the user satisfaction, it will also influence the service development strategy of public libraries. Moreover, it is very important the adoption of this approach is important in terms of organizational efficiency.

Within the scope of this study, 12 different smart practice examples collected from seven different public libraries have been handled and analyzed in detail. While each example is considered as innovative at the institutional and regional level, it also has the potential to set an example for similar institutions.

2. PURPOSE, SCOPE AND METHOD OF THE STUDY

This study aims to analyze the smart practice examples/services and disseminate these services for public libraries in Turkey to take as role models, which will contribute to educate participative, social, extrovert, self-confident persons who have high level of knowledge, culture. Within this context, the subject has been limited with the public libraries in Turkey. In accordance with this, 12 smart practices collected from selected Public Libraries were analyzed in detail. Descriptive method was used for our data collection and analysis. To collect the data, structured and semi-structured interviews were made with the participants. The GRID from the EduCitizens project (<http://www.educitizens.org/>) was utilized to collect, analyze and present the data.

3. FINDINGS AND ANALYSIS OF THE STUDY

In this part of the study, data collected from Ayvalik Country Public Library, Bornova Country Public Library, Düzce Provincial Public Library, Halil Hamit Paşa Provincial Public Library, Or-An Sevgi Yılı County Public Library, Trabzon Provincial Public Library and İskender Pala Provincial Public Library are presented in tables. Pertaining to the services, “Basic Quantitative Evaluation” (scoring) and “Qualitative Evaluation” are made (in accordance with the terminology of the EduCitizens Grid (EduCitizens, 2018) 12 different smart practices collected from seven different public libraries have been given a code from 1-12 in order to render the data in the tables. Coding is as follows:

- 1) Art of Paper Marbling: Painting on Water –EBRU-** (Ayvalik County Public Library)
- 2) Listening Activity** (Bornova County Public Library)
- 3) Treasure Hunt** (Bornova County Public Library)
- 4) Plagiarism** (Bornova County Public Library)
- 5) Enriched Reading Activity**(Bornova County Public Library)
- 6) Organization of Shelves** (Bornova County Public Library)

-
- 7) **Independence for Health** (Düzce Provincial Public Library)
 8) **Information Literacy Training** (Halil Hamit Paşa Provincial Public Library)
 9) **Treatment with a Book: Bibliotherapy** (İskender Pala Provincial Public Library)
 10) **Small Authors** (Trabzon Provincial Public Library)
 11) **Trabzon Provincial Public Newspaper** (Trabzon Provincial Public Library)
 12) **Volunteer Chorus of Turkish Classical Music** (Or-An Sevgi Yılı County Public Library)

Some of the resulting evaluations and presentations of the collected data with respect to these services are used as part of EduCitizens project outputs. However this paper provides a more comprehensive coverage, reflecting the perspective of the Turkish team that contributed to the project.

3.1 Quantitative Evaluation

In this section, evaluations pertaining to the smart practices have been made under the titles of;

- Basic Formal Evaluation,
- Didactic Transposition Indicators,
- Narrative Quality of Method Indicators,
- Formal Quality of the Creation and Production Indicators,
- Dissemination and Impact

Based on these evaluations a total scoring can be reached for each service.

Table 1. Essential formal requirements pertaining to the smart practices

	1	2	3	4	5	6	7	8	9	10	11	12
Participants and organization are mentioned	+	+	+	+	+	+	+	+	+	+	+	+
Target audience is mentioned	+	+	+	+	+	+	+	+	+	+	+	+
Actors and participants are identified consistently and the roles they performed are named	+	+	+	+	+	+	+	+	+	+	+	+
All sources are cited ; copyrighted material, if used, is identified and used with clear permission	+	+	+	+	+	+	+	+	+	+	+	+

Table 1 shows the basic formal features of the smart practices implemented in public libraries and it has been seen that all 12 smart practices meet all the requirements.

Table 2. Didactic transposition indicators pertaining the smart practices

	1	2	3	4	5	6	7	8	9	10	11	12
Work was shared equally among all participants	+	+	+	+	+	+	+	+	+	+	+	+
The learning goals are clear	+	+	+	+	+	+	+	+	+	+	+	+
A common preparation process was done by the participants/students	+	+	+	+	+	+	+	+	+	+	+	+
A common creation process was done by the participant/students	+	+	+	+	+	+	+	+	+	+	+	+
The results had been shared by the participants/students	+	+	+	+	+	+	+	+	+	+	+	+
Is there an evidence that the learning goals had been reached?	+	+	+	+	+	+	+	+	+	+	+	+
The project involves several areas of knowledge	+	+	+	+	+	+	+	+	+	+	+	+

Table 2 shows didactic transposition indicators of the smart practices implemented in public libraries and it has been seen that all 12 smart practices meet all the requirements.

Table 3. Narrative quality of method indicators pertaining to the smart practices

	1	2	3	4	5	6	7	8	9	10	11	12
The method stimulated follow-up activities of learners	+	+	+	+	+	+	+	+	+	+	+	+
The approach is suitable for the participants (e.g. age groups, education background...)	+	+	+	+	+	+	+	+	+	+	+	+
The content is clearly relevant to the theme of the assignment or topic; the message is clear	+	+	+	+	+	+	+	+	+	+	+	+
The method leaves open space for intervention of learners	+	+	+	+	+	+	+	+	+	+	+	+
Learner-centered approaches had been used.	+	+	+	+	+	+	+	+	+	+	+	+

In Table 3, narrative quality of method indicators of the smartpractices implemented in public libraries is given and it was observed that all 12 smart practices meet all the requirements.

Table 4. Fformal quality of the creation and production indicators pertaining to the practices

	1	2	3	4	5	6	7	8	9	10	11	12
The impact of the method builds up the community capacity	+	+	+	+	+	+	+	+	+	+	+	+
The tools/methods chosen are suitable to create discussion	+	+	+	+	+	+	+	+	+	+	+	+
There is a careful selection of resources stimulating the learner to engage in the learning process	+	+	+	+	+	+	+	+	+	+	+	+
The talking-ratio in the method are in favor of the learner	+	+	+	+	+	+	+	+	+	+	+	+
The use of the resources is simple and accurate, focused on local needs	+	+	+	+	+	+	+	+	+	+	+	+
The methods are easy reproduceable by the participant/students												

In table 4, formal quality of the creation and production indicators pertaining to the smart practices have been given and all 12 smart practices were found out to meet the criteria.

Table 5. Dissemination and impact indicators pertaining to the smart practices

	1	2	3	4	5	6	7	8	9	10	11	12
The method leads to reflection	+	+	+	+	+	+	+	+	+	+	+	+
The method is shared	+	+	+	+	+	+	+	+	+	+	+	+
Tools are used to measure the impact of the method	-	-	-	-	-	-	-	-	-	-	-	-
Feedback can be provided to the learners and trainer/teacher	+	+	+	+	+	+	+	+	+	+	+	+

Table 5 shows the dissemination and impact indicators of the smart practices implemented in public libraries and it is understood that almost all of the 12 practices meet almost all of the requirements. It was understood that no tool was used to measure the impact on all 12 smart practices.

3.2 Qualitative evaluation

In this section, qualitative evaluation pertaining to the smart practices have been carried out under the subtitles of;

- General information
- Special information

Both two titles are composed of detailed sub-titles in order to reveal the implementation stages of the smart practices. Sub-titles pertaining to the general information are shown in 6-7-8-9 and information regarding the special information are indicated in Table 10-11-12-13 and conformity of each smart practice to the sub-titles is presented with tables.

Table 6.General information pertaining to the smart practices

	Art of Paper Marbling: Painting on Water –EBRU-	Listening Activity	Treasure Hunt
When was the method first used?	2013	2011	2013
How often was the method applied?	10 times	150 times	From 5 to 10 times
Geographical coverage of the method – for which audiences can you use it?	Local	Local	Local
How many organisations are using the method?	Unknown	1	1
Which kind of institutions perform the method?	From the governmental sector	From the governmental sector	From the governmental sector
How many educators are performing the method?	2	1	2
Target groups	Housewives - Retired - Students - Residents of Ayvalik	Children (Primary school)	Children (Primary school)
Number of learners with this method	Over 150 participants	1.500 participants	100 participants
How is/was the creation of the method financed?	1) Directorate of Public Education & Training Center 2) Attendees	No cost	No cost

Three different smart practices were developed for different purposes.

The first activity provided by the library is Art of Paper Marbling: Painting on Water (EBRU in Turkish Name). It was first used in 2013. It was applied 10 times and implemented at local level. Organizations from the government sector performed the method. During the implementation of the practice, two educators led the session. The target groups were housewives, retired people, students and residents of Ayvalik County. The method was financed by Directorate of Public Education & Training Center and some attendees supported the method in terms of finance issues. Over 150 participants took part in the training.

The activity has been developed with the aim of introducing the historical background, implementation of art of paper marbling as an intangible cultural heritage accepted by UNESCO,

improving the artistic skills of users, enabling them to gain artistic awareness, skills and competency. This activity also has the purpose of enriching library services, increasing the quality of library services, provide the citizens with the opportunity of meeting art craftsmen and art masters, increase the popularity and attractiveness of library services for users. It has managed to build interactive learning atmosphere for users. It helped the library to be an attraction center via creative services.

The Second activity is Listening Activity, which was firstly performed in 2011. It was implemented 150 times in local level by institutions from the governmental sector. Over 1500 participants attended the training. The method had no cost. One educator led the training, which provided for library users to enable them achieve the sense of listening carefully and comprehending what they listen, to equip students with necessary skills to retrieve information resource, and use what they learned and gained, enabling them to gain information literacy skills. This activity has enabled the library to turn out to be an adventure and fun space for users and librarians working.

The third activity is Treasure Hunt, which enables the users to perceive the importance of retrieving information resources, gain information literacy and meta-literacy skills, foster the users to experiment information literacy process with gamified tools, to put forward the unique role of libraries in creating pro-active services. It was implemented in 2013 for the first time. It was known to have been applied from 5 to 10 times in local level. Institutions from governmental sector performed the method. Target group was the children continuing education in primary school. The method had no cost.

Table 7.General information pertaining to the Smart Practices

	Plagiarism	Enriched Reading Activity	Organization of Shelves
When was the method first used?	2013	2014	2013
How often was the method applied?	From 5 to 10 times	60 times	From 5 to 10 times
Geographical coverage of the method – for which audiences can you use it?	Local	Local	Local
How many organisations are using the method?	1	1	1
Which kind of institutions perform the method?	From the governmental sector	From the governmental sector	From the governmental sector
How many educators are performing the method?	2	At least 3	2
Target groups	Students (From 8th class secondary school student to high school students)	Children and Youth (Preschool, primary school, secondary school and high school groups)	Students (Pre-school age children and those in 5th class)
Number of learners with this method	60 participants	1.200 participants	Nearly 750 participants
How is/was the creation of the method financed?	No cost	Volunteers	Volunteers

Three smart practices have been developed for different purposes in Table 7.

The first activity is plagiarism which aims to emphasize the importance of giving a reference in school assignments, research and other studies, put forward the role of libraries in raising the awareness of students, children about plagiarism. It was used in 2013 for the first time from 5 to 10 times in local level by governmental organizations. It aimed to give training to students (from 8th class secondary school student to high school students). Totally 60 persons participated in the training. It had no cost.

The second activity is Enriched Reading Activity which has the purpose of enabling the children to gain reading habit, reading literacy skills. It was firstly used in 2014 in local level and it was performed 60 times. One educator supported the training process. The method was used by governmental organizations and its target group was children and youth.

The third activity is Organization of Shelves, which enabled the participants to fix the books in an organized way, not randomly, bring relevant topics together in accordance with visual materials in external cover, gain the competency in detailed classification capacities in accordance with age groups, gain perception and awareness to handle the books not only with external characteristics but with content, feel tolerance towards each other in the library, have good time and memory in library with books. The activity was firstly used in 2013 in local level. It was used from 5 to 10 times by governmental organizations. Students who were in pre-school age and in 5th grade, whose total number was approximately 750, participated in the training.

Table 8. General information pertaining to the smart practices

	Independence for Health	Information Literacy Training	Treatment with a Book: Bibliotherapy
When was the method first used?	2016	2014	2015
How often was the method applied?	14 times	13 times	86 times
Geographical coverage of the method – for which audiences can you use it?	Local	Local	Local
How many organisations are using the method?	1	It is being implemented in different public and university libraries throughout Turkey.	Unknown
Which kind of institutions perform the method?	From the governmental sector	From the governmental sector	From the governmental sector
How many educators are performing the method?	1	2	3
Target groups	Students (age 9-15)	Housewives- Prisoners- Retired persons- Visually disabled people- Patients	Drug addicts- Prisoners
Number of learners with this method	Over 700 participants	Over 200 participants	841 participants
How is/was the creation of the method financed?	No cost	Library budget	No cost

Three smart practices were developed for different purposes. The activity of Independence for Health aims to increase the level of perception and awareness of students about addiction types,

to inform students in the 9-15 age group about substance, alcohol, drugs, smoke and technology addiction, to help students stay away from harmful substances, enable students to learn how to protect themselves from addictions, guiding students on behalf of an independent life, enable the Family members, friends and other individuals to be informed about addiction, enable students to live as healthier individuals, draw attention to social problems within the public library, emphasize that public libraries are an individual-oriented institution, put forward the social responsibilities of public libraries, spread the public library perception to an extensive by reaching out to their families through the students, to enable the development of library user profile. It was used in 2014 14 times in local level with the support of one educator by the government organizations. It aimed to give training to students at the age of 9-15, who are over 700 in population.

The second training is Information Literacy Training which aims to enable the disadvantaged groups to use technology, gain information and computer literacy skills, develop these skills, adapt to the changing conditions of the digital era, create digital communities and e-citizens, improving the skills of -digital immigrants, contribute to the social, cultural and economical development of individuals, gain insight and awareness about library and increase use of library, create digital society. Information Literacy Training was firstly used in 2014 13 times in local level. It is currently being implemented in different public and university libraries throughout Turkey. Housewives, prisoners, retired persons, visually disabled people were the target groups pf the method. It was financed by library budget.

The third activity is Treatment with a Book: Bibliotherapy which enablesthe prisoners to get rid of the feeling of alienation, make them have self-confidence. Enable them to learn how to cope with their psychological and social problems, provides the opportunity for the participants to recognize and understand themselves, their characteristics, and the complexity of human thought and behaviors, change the behaviors of the prisoners in a positive way and improve their psychological situation and perform social therapy sessions for them in order to encourage them not to repeat their problematic behavior, raise awareness about public libraries, underline the importance of social responsibilities of libraries besides cultural responsibilities. The method was was firstly used in 2015 86 times in local level by governmental organizations. Drug addicts and prisoners were the target groups of the training. 841 participants attend the training. It had no cost for the library.

Table 9.General information pertaining to the smart practices

	Small Authors	Trabzon Provincial Public Newspaper	Volunteer Chorus of Turkish Classical Music
When was the method first used?	2013	2017	2007
How often was the method applied?	From 2 to 4 times	From 2 to 4 times	11 times
Geographical coverage of the method – for which audiences can you use it?	Local	Local	Local
How many organisations are using the method?	It is being implemented in different public libraries throughout Turkey.	Unknown	1
Which kind of institutions perform the method?	From the governmental	From the governmental	From the governmental

	sector	sector	sector
How many educators are performing the method?	13	11	5
Target groups	Students (primary school)	Students (college school)	Everybody
Number of learners with this method	Over 32 participants	Over 32 participants	At least 500 participants
How is/was the creation of the method financed?	Library budgets	Library budgets	Library budgets and volunteers

The practices given in Table 9 were developed for different purposes. The first activity is small authors. Small Authors was firstly implemented in 2013. It was done from 2 to 4 times. It is still being implemented in different public libraries throughout Turkey by organizations from governmental sector. 13 educators worked in the training. Students from primary school were the target group of the training. Over 32 participants attended the training. Expenses were covered from library budget. It has the aim of providing continuity of students' use of library, encouraging young users to write, introducing the authors to enable their integration with the public, ensure the development of the user group to benefit from the library, ensure the togetherness of the student-parent relationship in reading books, to contribute to the habits of reading by providing early literacy education to the students, diversify library user group, augment the students to cooperate with various institutions and NGO (Non-governmental organizations)

The second activity is on creating Trabzon Provincial Public Newspaper. It was firstly implemented in 2017 from 2 to 4 times in local level. Organizations from the governmental sector carried out the method. The target group was students, their total number is over 32. It has the aim of supporting the integration of the students with the public by introducing cultural activities and cultural institutions in Trabzon, enabling the continual use of library, ensure that students / young people are sensitive to social problems, increase the awareness of the students / young people about the environment they live in and their level of awareness of their own city, ensure that the views of the students towards the library are changed positively by seeing that the Trabzon Provincial Public Library is involved in such projects.

The third activity is Volunteers Chorus of Turkish Classical Music, which enables the users to gain artistic skills, to get the chance to socialize and interact with other people through music. The activity helped the library to be an attraction center for users. Within the frame of the activity, the concerts were given in the library and users had the chance to see the library and discover the opportunities of libraries. It was firstly used in 2007 by government organizations in local level. It was performed 11 times. 5 educators led the training. There was no limitation for the target group. Every person from different backgrounds had the chance to participate. At least 500 participants took part in the training.

Table 10.Special information pertaining to the Smart Practices

	Art of Paper Marbling: Painting on Water – EBRU-	Listening Activity	Treasure Hunt
How interactive is the method?	Very	Very	Very
Which aspects make your method interactive?	Mutual discussion Question-	Mutual discussion Question-answer Brainstorming	Mutual discussion Question-

	answer Brainstorming		answer Brainstorming
How strong does the method motivate participants for further learning?	Very	Quite	Very
To which age range do the participants belong?	Under 21 years old 21-60 61-67 67 +	Under 21 years old	Under 21 years old
Which kind of participatory aspects does the method have?	Easy transferable, Involve participants with different knowledge levels	Easy transferable, Involve participants with different knowledge	Easy transferable, Involve participants with different knowledge
In which way does the method have impact on the participants regarding following aspects?	Participation in society- Awareness as citizen- Living active life- Empowerment	Participation in society- Living active life- Empowerment	Participation in society- Living active life- Empowerment
How long was the implementation process of the method?	6 years	7 years	5 years
How does the preparation of the method look like? Do you use f. e. fixed curricula or non-formal planning?	Fixed curricula are used.	Fixed curricula are used.	Fixed curricula are used.
How does the documentation of the results look like?	Photography	Photography	Photography
When are the first results/ effects noticeable?	2013	2011	2013
How is the method transferable to other education sectors?	Curriculum can be used.	Curriculum can be used.	Curriculum can be used.
How innovative is the method?	Just so	Not really	Quite
What makes the method innovative?	Blend of traditional art with the newest artistic materials and method is the innovative part	-	Only specific to this library.

	of the method.		
How does the promotion of the method look like?	Social media tools, Library board, Inter-personal communication, Via Public Education & Training Center	Social media tools, General Directorate of Libraries and Publications	Social media tools, General Directorate of Libraries and Publications
What kind of assessment methods do/ did you use in order to follow the impact of the method?	Observation and interview	Observation and feedbacks	Observation

In Table 10, special detailed information was provided for the smart practices. For the activity of art of paper marbling, the method has been very interactive. It had mutual discussion, question-answer, brainstorming sessions. The method was found out to be very motivating by the participants. Participants under 21 years old, between 21-60, 61-67 and over 67 benefited from the method. The method can be transferred to another field and organizations, it can be used by different educational organizations, such as universities, private and government education and training centers, public training centers. It can involve participants with different knowledge level. It can be adapted to different learning atmospheres. It enables the participation of citizens in society, it is a citizen-centered approach. It has the blend of traditional and post-modern art. The listening activity and the Treasure Hunt are also one of the influential and interactive methods used within the frame of user-centered approaches. It was based upon mutual discussion, question-answer and brainstorming session. Both aimed to appeal to the participants under 21 years old. They can be adapted to other learning environments and used with different target groups. All these three methods were disseminated and promoted by social media tools. Differently from this, first method was promoted also by library board, inter-personal communication, public and education training center. For 3 practices commonly used assessment method was observation.

Table 11.Special information pertaining to the Smart Practices

	Plagiarism	Enriched Reading Activity	Organization of Shelves
How interactive is the method?	Very	Very	Very
Which aspects make your method interactive?	Mutual discussion Question-answer Brainstorming Human interaction Reflective session	Mutual discussion Question-answer Brainstorming Reflective & Refractive Critical thinking skills Peer discussion	Mutual discussion Question-answer Brainstorming Gamification Reflective Thinking Environment Human Interaction Active engagement

			Social inclusion
How strong does the method motivate participants for further learning?	Very	Quite	Quite
To which age range do the participants belong?	Under 21 years old	Under 21 years old	Under 21 years old
Which kind of participatory aspects does the method have?	Easy transferable, Involve participants with different knowledge	Easy transferable, Involve participants with different knowledge	Easy transferable, Involve participants with different knowledge
In which way does the method have impact on the participants regarding following aspects?	Participation in society-Empowerment	Participation in society-Living active life-Empowerment	Participation in society-Empowerment
How long was the implementation process of the method?	5 years	4 years	6 years
How does the preparation of the method look like? Do you use f. e. fixed curricula or non-formal planning?	Fixed curricula are used.	Fixed curricula are used.	Fixed curricula are used.
How does the documentation of the results look like?	Photography	Photography	Photography
When are the first results/ effects noticeable?	2013	2013	2013
How is the method transferable to other education sectors?	Curriculum can be used.	Curriculum can be used.	Curriculum can be used.
How innovative is the method?	Quite	Just so	Not really
What makes the method innovative?	Specific to this library in Turkey.	-	-
How does the promotion of the method look like?	Social media tools, General Directorate of Libraries and Publications	Social media tools, General Directorate of Libraries and Publications	Social media tools, General Directorate of Libraries and Publications
What kind of assessment methods do/ did you use in order to follow the impact of the method?	Observation and feedbacks	Observation	Observation

According to Table 11, all three practices were interactive and they used mutual discussion, question-answer, brainstorming. Both the activities of Plagiarism and Organization of Shelves used human interaction. Different from this, plagiarism activity used reflective section. While the activity of Organization of Shelves benefited from gamification applications an technology, active engagement, peer discussion, Enriched Reading Activity used critical thinking skills. While plagiarism activity was observed to be very interactive, Enriched Reading Activity and Organization of Shelves was quite interactive. All three practices appealed to participants under

21 years old and they aimed to enable the participation in society and empowerment of citizens. For all three practices, fixed curriculum has been used. They were all promoted by social media tools, general directorate of libraries and publications. Assessment method was observation for all three methods.

Table 12.Special information pertaining to the Smart Practices

	Independence for Health	Information Literacy Training	Treatment with a Book: Bibliotherapy
How interactive is the method?	Very	Very	Very
Which aspects make your method interactive?	Mutual discussion Question-answer Brainstorming	Mutual discussion Question-answer Brainstorming	Mutual discussion Question-answer Brainstorming Socio-therapy
How strong does the method motivate participants for further learning?	Very	Very	Very
To which age range do the participants belong?	Under 21 years old	25-60 years old	Under 21 years old, 21-60
Which kind of participatory aspects does the method have?	Easy transferable, Involve participants with different knowledge	Easy transferable, Involve participants with different knowledge	Easy transferable, Involve participants with different knowledge
In which way does the method have impact on the participants regarding following aspects?	Participation in society- Living active life- Awareness as citizen- Empowerment	Participation in society- Living active life- Awareness as citizen- Empowerment	Participation in society- Living active life- Awareness as citizen- Empowerment
How long was the implementation process of the method?	3 years	3 years	3 years
How does the preparation of the method look like? Do you use f. e. fixed curricula or non-formal planning?	Fixed curricula are used.	Fixed curricula are used.	Fixed curricula are used.
How does the documentation of the results look like?	Photography	No documentation	No documentation
When are the first results/effects noticeable?	2016	2014	2015
How is the method transferable to other education sectors?	Curriculum can be used.	Curriculum can be used.	Curriculum can be used.
How innovative is the method?	Just so	Just so	Very
What makes the method innovative?	It is the first training provided by a public library in Düzce	As the target group the method can be handled as innovative.	This service is offered in a public library for the first time in Turkey.

How does the promotion of the method look like?	county. Social media tools, local press support	Social media tools, local press	Because of target groups, materials of the trainings are not allowed to be used.
What kind of assessment methods do/ did you use in order to follow the impact of the method?	Observation and interview	Observation and interview	Observation and interview

In Table 12, all three methods were found out to be very interactive in terms of providing mutual discussion, question-answer, brainstorming sessions. The method inspired and motivated the participants. First method was used for participants under 21 years old, the second for participants between 25-60 years old and the third for participants under 21 years old and participants between 21-60. All three methods aimed to foster the participation in society, enable the citizens to lead an active life also create awareness on citizen inclusion and empowerment. They all have been performed for 3 years. The first method was found out innovative as it is the first training provided by a public library in Düzce county. All three methods were easily transferable to the other learning environments. Pertaining to the activity of Independence for Health and Information literacy training, promotion was made with social media tools and support of local press. The common assessment method used was observation and interview.

Table 13.Special information pertaining to the Smart Practices

	Small Authors	Trabzon Provincial Public Newspaper	Volunteer Chorus of Turkish Classical Music
How interactive is the method?	Very	Very	Partially
Which aspects make your method interactive?	Mutual discussion- Question-answer- Brainstorming	Mutual discussion- Question-answer- Brainstorming	Mutual discussion
How strong does the method motivate participants for further learning?	Very	Very	Very
To which age range do the participants belong?	Under 21 years old	Under 21 years old	Over the age of 25 (Especially over 50)
Which kind of participatory aspects does the method have?	Easy transferable, Involve participants with different knowledge	Easy transferable, Involve participants with different knowledge	Easy transferable
In which way does the method have impact on the participants regarding following aspects?	Participation in society- Living active life- Awareness as citizen-	Participation in society- Living active life- Awareness as citizen-	Participation in society- Living active life- Empowerment

	Empowerment	Empowerment	
How long was the implementation process of the method?	5 years	2 years	12 years
How does the preparation of the method look like? Do you use f. e. fixed curricula or non-formal planning?	Fixed curricula are used.	Fixed curricula are used.	Fixed curricula are used.
How does the documentation of the results look like?	Photography, Children's story books	Photography, Children's newspaper	Photography
When are the first results/ effects noticeable?	2013	2017	2007
How is the method transferable to other education sectors?	Curriculum can be used.	Curriculum can be used.	Curriculum can be used.
How innovative is the method?	Quite	Quite	Just so
What makes the method innovative?	In Trabzon region, it is one of the first initiatives performed for children.	It is an activity which aims to improve the media literacy skills of children.	-
How does the promotion of the method look like?	Local newspapers- National Radio Channels (TRT)- Social media tools- Webpage of library	Local newspapers- National Radio Channels (TRT)- Social media tools- Webpage of library	Social media tools Webpage of library
What kind of assessment methods do/ did you use in order to follow the impact of the method?	Observation, interview and feedbacks	Observation, interview and feedbacks	Observation, interview and feedbacks

In Table 13, special information for the other practices “Small Authors”, “Trabzon Provincial Public Newspaper” and “Volunter Chorus of Turkish Classical Music was given. While the activities of Small Authors and Trabzon Provincial Public Newspaper has been found out to be very interactive, the third practise “Volunteer Chorus of Turkish Classical Music” was found partially interactive. First and latter practices include mutual discussion. First and second practice appealed to participants under 21 years old. The third practice aimed to provide service for participants over 25 years old. All three practices were easily transferable to other sectors and educational environments. Fixed curricula were used for 3 cases. In Trabzon region, the activity of Small Authors is one of the first initiatives performed for children. Trabzon Provincial Public Newspaper is an activity which aims to improve the media literacy skills of children. The first and second practice has been promoted through local newspapers, National Radio Channels (TRT), social media tools, web page of library.

4. CONCLUSION AND RECOMMENDATIONS

Within the frame of this study, user/citizen-centered smart practices of different public libraries in Turkey (Ayvalik Country Public Library, Bornova Country Public Library, Düzce Provincial Public Library, Halil Hamiç Paşa Provincial Public Library, Or-An Sevgi Yılı County Public Library, Trabzon Provincial Public Library and İskender Pala Provincial Public Library) have been analyzed and assessed quantitatively and qualitatively. As a result of the quantitative

evaluation of the study, it was found out that all the practices have met the criteria for essential formal requirements, didactic transposition indicators, narrative quality of method indicators and formal quality of the creation and production indicators. Namely, in all practices, participants, organization AND target audience were mentioned. Actors and participants were identified consistently. All sources are cited; copyrighted material, if used, is identified and used with clear permission . Labor division was made between participants and it was managed successfully. All the learning goals were identified clearly. Logistical arrangements and management was carried out with high performance. Learning materials were prepared with efficient management system. The trainings included several areas of knowledge. All the methods were observes to stimulate and support the follow-up activities of the learners. The approaches were in accordance with the needs, (special, learning, etc), educational and organizational, socio-cultural background of the participants. The content has been prepared in accordance with the topic. Learner centered approach was adopted within the frame of the activities. The used methods helped to build community capacity and contributed to the establishment of user-centered learning atmosphere. The use of the resources was clear, accurate and complied with the learning needs of the individuals. The methods were found to be reproducible. All the methods could provide feedback for the learners, trainers and teachers. The methods were shared with other individuals, NGOs and organizations and successful dissemination activity was well-achieved. One missing point was that no tool was used to measure the impact of all these methods and smart practices. This can be done as a suggested future work. Their efficiency might be measured in different implementation stages and activities, data can be collected in experimental basis and can be analyzed in different studies. Measurement tools can be developed and used for further efficiency analyses.

As for the qualitative part of the study, general characteristics of the practices were evaluated and information was provided on how many times methods were performed, who implemented the method, how many educators led the training sessions., to what extent the method was creative, innovative and motivating. Results of the qualitative part of the study indicated that relevant libraries participating in this study were active in implementing user-oriented, citizen-centric inclusive services. All the handled cases were found out to be interactive reflective, enabled the individuals to interact with each other and give them the chance to get socialized, get to know people. All were observed to have mutual discussion, question-answer, brainstorming sessions. Different from others, in the activity of Organization of Shelves, gamified implementations were applied and adopted. Plagiarism and Organization of Shelves Activities had reflective thinking sessions and both enabled the development of critical-thinking, analytical thinking skills of participants. Also they both ad human interaction feature. Treatment with a Book: Bibliotherapy session included the use of socio-therapy. While implementation of some cases were financed by Directorate of Public Education& Training Center and some attendees, some of the practices (Independence for Health, Treatment with a Book, Listening Activity, Treasure Hunt activity, Plagiarism) had no cost. Such activities as Enriched Reading Activity, Organization of Shelves were financed by volunteers. Information Literacy Training, Small Authors, Trabzon Provincial Public Newspaper, Volunteer Chorus of Turkish Classical Music was financed by library budget. Differently from other practices. Second sponsor of the Volunteer Chorus of Turkish Classical Music was volunteers, as well. Activities of Plagiarism, Organization of Shelves were applied 5 to 10 times. Higher implementation rates belong to Listening Activity (150 times), Enriched Reading Activity (60 times), Treatment with a Book: Bibliotherapy (86 times) respectively. Total number of participants is 1500 for the Listening Activity, 1200 for the Enriched Reading Activity, 841 for the activity of Treatment with a Book: Bibliotherapy), nearly 750 participants for the activity of Organization of Shelves, over 700 for the activity of Independence for Health, at least 500 participants for the Volunteer Chorus of Turkish Classical Music, more than 200 for the activity of Information Literacy Training, over 150 participants for

the activity of Art of Paper Marbling on Water-EBRU, 100 participants for the activity of Treasure Hunt. 60 participants for the Plagiarsim Activity. As for the target groups, students were the target groups of the activity of Small Authors, Plagiarism, Organization of Shelves, Enriched Reading Activity, Trabzon Provincial Public Newspaper, Independence for Health. Besides these, for Information Literacy Training, housewives, prisoners, retired persons, visually disabled people, patients were the target group. Differently drug addicts and prisoners were the target group of the Treatment with a Book: Bibliotherapy. Common point for all the activities is that they were all implemented in local level. All the activities were transferable to other learning environments and fields. They all can be used by other educational institutions, public and training centers, they can be used as non-formal learning methods and techniques within the frame of other projects in local, national, international and global level. Most of the smart practices have been found out innovative as they were firstly implemented in their local surroundings.

These 13 cases belonging to Turkey were selected from the Handbook of EduCitizens project and analyzed in detail. As further study, other smart practices belonging to different European Countries can be analyzed and evaluated in terms of these quantitative and qualitative evaluation criteria. The metric used within the frame of EduCitizens Project (Evaluation Grid) can be used for analyzing and evaluating the smart cases of other projects or organizations.

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INTEGRATING INFORMATION LITERACY INTO THE CURRICULUM

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ABSTRACT:

Information literacy is regarded as a crucial skill for university students (Landøy, 2010). In this paper, we will discuss collaborative efforts between academic libraries and the scholarly community they are serving, in order to enhance the take-up of information literacy (IL) from students.

At University of Bergen, the Library has taken ownership to IL and regards the training of students in IL as one of the main strategic tasks (Landøy, 2010). The trainings in IL are not compulsory for students, although IL is mentioned as one of the core skills in the “qualification framework” given by the Royal Norwegian Ministry of Education (NKR, 2011:22). The University leadership supports the Library efforts.

When it comes to the practical implementation, however, the scholarly departments are most important for students to participate in the trainings.

Our joint efforts, which will be discussed in the paper, include informational and motivational measures from administrative and academic staff at the departments, and close collaborations in planning of content. The departments have some similar and some different needs for their students, and the academic librarian will be able to choose from a set of descriptions with matching training content.

1. INTRODUCTION: INFORMATION LITERACY AND ACADEMIC RESEARCH

Information literacy, as a tool for students to assess and understand the reliability of the information they are gathering, is an important task, especially for academic libraries worldwide. In this framework, information literacy can be defined as in the new definition from the Chartered institute of library information professionals (CILIP). "Information literacy is the ability to think critically and make balanced judgements about any information we find and use. It empowers us as citizens to reach and express informed views and to engage fully with society" (CILIP 2018). In an educational and academic setting, university libraries have an impact on how successful students are in acquiring skills that are necessary for their academic endeavours.

Information literacy is one of the most useful tools developed in the academic sector to get students to become better acquainted with the vast academic resources found in the academic libraries, to bring these resources into use at all academic and scientific levels in their own studies and work, to develop the technical skills needed to master and make practical and efficient use of resources, to seek strategically relevant knowledge in the vast amount of knowledge that academic libraries manage and which is a necessary input to, and to be able to develop both a subject-critical assessment of this knowledge material and, moreover, be able to better see his/her own narrow discipline in a larger academic perspective and, moreover, in a broader scientific theory context. Such challenges are difficult or impossible for students to both cope with and resolve on their own, and too demanding to achieve the necessary skills and competencies needed without expert guidance on the use of information literacy tools.

Earlier research from University of Bergen Library shows that even when academic staff promotes the information literacy trainings, not all students participate in the training (Landøy, 2010). The University library, in close collaboration with the professors, situate the training at the optimum time in the academic cycle; “just in time” for the deadlines the students have for their work, but even so, the number of students attending is lower than expected for some subject.

In this paper, we will look at some joint efforts with the objective to enhance the student participation in the Library information literacy courses.

2. INFORMATION LITERACY AS A CORE COMPETENCE FOR NORWEGIAN STUDENTS: THE NATIONAL QUALIFICATION FRAMEWORK

The Royal Norwegian Ministry of Education and Research finalized the Norwegian Qualifications Framework in 2009 and made it law in 2011, as part of the European Qualification Framework and the Bologna process in Norway. The Qualifications Framework formulates the knowledge, skills and general competencies all students are expected to achieve through completed study courses at different levels. Education policy increasingly emphasizes that higher education must qualify students beyond the subject-specific. Being a practitioner of a given profession or possessing a given professional knowledge therefore assume qualifications that are explicitly linked to students' future participation as citizens, as workers, and as participants in lifelong learning processes.

Libraries in higher education are constantly developing their educational offerings. This can be seen as an important step in strengthening our role as professional and educational resource environments for the mother institutions. Within the framework, qualifications we can understand within the term "information competence" are formulated as expected learning outcomes for the study programs. This also shows how the implementation of the qualification framework challenges the library's educational and professional competence.

The Norwegian Qualification Framework is developed for all levels of formal education. In the following, we will concentrate on levels Bachelor, Master and PhD.

The European Quality Framework defines national qualification frameworks as: "National qualifications framework means an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society." The Ministry formulated their understanding as: "A qualification framework is a collective, systematic and level-divided description of formal qualifications that can be achieved within an education system. The framework is a systematic description of the level and competence acquired for the levels in the Norwegian education system. National qualifications frameworks are based on the nation's education system, shows level and progression and correlation with working life and social life." (NKF, 2011:7)

Information literacy may be found embedded in the framework under the headings of "SKILLS" (defined as "The ability to utilise knowledge to solve problems or tasks (cognitive, practical, creative and communication skills)" and "GENERAL COMPETENCE", which is defined as: "The ability to utilise knowledge and skills in an independent manner in different situations". For Bachelor level (first cycle of higher education), the framework mentions skills like "can find, evaluate and refer to information and scholarly subject matter and present it in a manner that sheds light on the problem" and "masters relevant scholarly tools, techniques and forms of communication". In Master level (second cycle) the skills includes "can analyze and deal critically with various sources of information and use them to structure and formulate scholarly arguments" (NKF, 2011:23f)

3. THE ACADEMIC LIBRARIES AND ACADEMIC RESEARCH

In order to get the most optimal benefit for students at all academic levels of the resources available in the academic libraries, close cooperation between the academic libraries and the academic units at the faculty and department level is highly necessary. Here, academic libraries have no doubt sat down in the driver's seat. Many of the academic libraries have on the one hand invested heavily in the task of developing good, useful and solid information literacy tools of a technical, archival and material nature. On the other hand, the academic libraries have invested heavily in qualifying the librarians for the new tasks and requirements associated with an academic library through continuing education and retraining. For the librarians, this has partly

meant a change in the work situation from pure service activities, such as delivering ordered book and literature material to users and the public, to assist professionals and researchers at all academic levels with advisory services.

The librarians have changed their librarian status and position librarians from largely being service librarians to largely becoming academic librarians. In addition many of the academic libraries today have put in place solid and decent technical and practical resources aimed at academic and research activities, and they also have a solid staff of resourceful librarians who can engage in expert information literacy guidance. Many of the academic libraries have developed into a living research environment or research recruitment arena where students and researchers stay for shorter or longer periods. Previously, the practice of students and scholars was just to retrieve ordered material. That is, university libraries were previously not intended for students.

The role of university libraries as a reading room for students - mainly at the lower level - is old, but after the university libraries became academic libraries, the students' library behaviour and the role of the library have changed noticeably. The academic libraries have been transformed into study libraries in a completely new and different manner. The students can stay here for much of the day because the libraries have become more study and research friendly, because one can ask the librarians for academic advice and academic guidance, and because most research libraries now have open bookshelves where the students can go, both to orient themselves and to find just the books and literature they need for their professional work and exams. In the middle of tightly packed bookshelves that strain from professional knowledge, there will be group rooms and reading, study and conversation hooks, where academic discussions and academic presentations take place. An academic library today is not what a university library was.

4. FOUR ESSENTIAL ACADEMIC CONTRIBUTORS

The four key players in the development, adaptation and adaptation of information literacy in academia are 1) the academic libraries, 2) the academic institutions, 3) scholarly staff (teachers and professors) and 4) the students.

By academic libraries is meant here: the academic libraries, the non-fiction collections, the technical and digital access to the academic literature, the physical facilitation in and by the libraries, the physical access to the collections, and the physical and practical facilities for being able to reside in the academic libraries over a longer period of time.

Academic institutions here mean universities and university colleges at various organizational levels: at the upper academic and administrative university level (rectorate and director level), at the academic and administrative faculty level, at the academic and administrative level, and at the academic and administrative level, center level.

Scholarly staff here is meant to be scientific and educational staff who are involved in various aspects of teaching and research related to student work and on BA level, MA level and Ph.D level.

With students here are meant academically active students who work with and complete scholarly work in the form of bachelor theses, master theses and Ph.D. dissertations.

5. RESPONSE FROM ACADEMIC LIBRARIES

As mentioned earlier, many of the academic libraries have, in recent years, undergone a radical change of structure, which has been aimed at meeting the new tasks and the new requirements - related to the internal reorientation with greater information literacy and thus to a more comprehensive, more challenging and more frequent collaboration with academic professionals - providing staff and the physical and electronic access to sources, archives, literature and professional knowledge for academia and academia students and scholarly staff in a most practical and professional manner.

5.1. Material and physical adaptations

Libraries have been physically partially rebuilt and partially adapted and adjusted to allow students and researchers to make much use of the amount of knowledge found in the libraries to a much greater extent and in a completely different practical way than before. The libraries are also more adapted to students and researchers staying in the library area near the sources and the academic library's expertise for long periods, and also discuss academic material and research issues with other professionals and researchers who use the libraries at corresponding academically in a fruitful way.

5.2. From service librarians to academic librarians

The biggest change that has taken place when the traditional university libraries became academic libraries, is probably both that the library staff has been given other tasks than before, and that it is retrained and has gained greater academic competence in addition to the previously solid library skills. The academic library staff has been strongly accredited, which has meant that the academic libraries can, to a much greater extent than before, engage in academic dialogue with the academic staff and the researchers at the faculties and departments. The same applies to the dialogue and collaboration with the students at BA, MA and Ph.D. level.

6. RESPONSE FROM ACADEMIC INSTITUTIONS

While many of the academic libraries, both physically and humanly, have largely adapted to the new needs and requirements of the stronger demand for joint explicit focus on information literacy, the traditional academic institutions - on all levels - are quite a success. The challenge is found especially at the faculty and department level. The reason for this is that there are so many different traditions associated with teaching, dissemination and research practice.

First, there are great fundamental and practical differences between the traditional faculties. Humanities and law stand out, for example, by studying, analysing and dealing with new and old texts, artefacts, values, norms, ideologies and philosophies, while natural science and medicine often focus on technology, practical implementation and physical measurements. Secondly, there are major differences within the same faculty, for example, at department level where, for example, theoretical physics has several similarities with philosophy, and where, for example, social medicine has several similarities with sociology, while the medicine used may have several similarities with chemistry and physics.

In this way, the various faculties and departments will have different needs and requirements for the academic libraries - and hence the physical structures of the libraries and the academic libraries as academic competence and profile.

Without having enough knowledge and experience to conclude on these issues, we have little suspicion that the relationship related to information literacy may be best developed between the academic libraries and the humanities faculties, institutes, and academic communities. Many departments and academic communities have established good cooperation arrangements with the academic environments and students at BA, MA and Ph.D. level.

7. RESPONSE FROM TEACHERS AND RESEARCHERS IN ACADEMIC INSTITUTIONS

Academic teachers and researchers like to be free and independent without too much interference from others. That is, there are great cultural differences. The individual culture is perhaps most developed on law and in the humanities. In medicine and in science, enough co-operation in large and partly large contexts is more widespread. This of course puts the mark on teaching, dissemination and research. But in addition to such institutional cultural differences, there are also strong individual sympathies, antipathies and priorities. Some are very open to collaboration across disciplines and subject boundaries, and are positive about input, assessments and common

solutions. Others, on the other hand, are in a strong academic defence position and believe they themselves are the best advisors, evaluators and little open to cooperation - not just across disciplines, departments and faculties, but also to closer collaboration with academic libraries.

8. RESPONSE FROM STUDENTS ON BA, MA AND Ph.D. LEVEL

As far as we have experienced with the practical information literacy implementation and with the collaboration of the academic libraries and the traditional academic institutions at the faculty and department level, the students on all three main levels – BA, MA and Ph.D. – are very positive and much cooperative. This is a very good platform to start with and to expand information literacy tools and methods from to faculties and institutes. We think the students very soon will convince the academic staff – teachers and scholars – to focus on information literacy as a very advanced academic tool.

9. THE UNIVERSITY OF BERGEN LIBRARY AND INFORMATION LITERACY TRAINING

In the early 2000's, the academic sector not only had to cope with the growth of ICT, but also the implementation of the Bologna process, the rise in lifelong learning and widening of access to higher education bringing in new learners with different previous educational experiences. This became a new force for change in the academic library world.

The University of Bergen library has always given library trainings, but the content of the trainings differed.

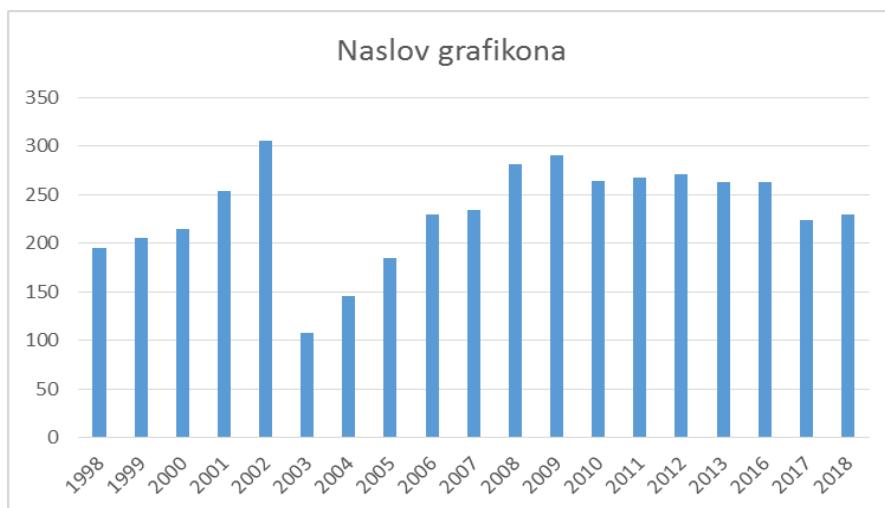


Figure 1 shows the number of library trainings/courses over the 20-year period from 1998-2018. The data from 1998-2017 are taken from the library annual reports found at the library web-site (the reports from 2014 and 2015 did not include the number of trainings) (UiB/UB 2019), while the data from 2018 are found in the reporting tool.

The number of courses are stable around 200-250, and the main reason for the fluctuations are probably the changing ways of registration and documentation through the years, where some years the number of hours used for teaching were reported, some years heavy-duty supervisions and time consuming questions were included, while for other years only the number of courses.

It is evident from the data in the annual reports, however, that the content of the trainings change. In the 1990's and early 2000's the content is reported to be mainly library usage: How to find information through tools, catalogues, and databases. In 2003 the concept "learning centre" is first mentioned, and the discussion goes on to "the digital library" and that trainings in information literacy are needed.

Among the academic librarians, who all had (the equivalent of) master's or doctoral degrees in university subjects, (not library science) the shift from library trainings focusing on tools to the needs in the informational society brought major changes in pedagogical conceptualization. Thus, the didactic activities to a higher degree are determined by the learners. The activities should vary and be produced in small and heterogeneous groups, based on mutual support. Productive learning and problem-solving learning are the main focus, trying to integrate theory into practice and encourage the transfer of knowledge and skills from one discipline to another (Voogt, J.M., & Pelgrum, W.J., 2003).

However, as Hyldegård et al (2011) reminds us: Students cannot be considered as a single group. The information behaviour depends on the level of study, the subject, the libraries' dissemination, interpretations of what is needed in relation to the given situation, preferences and different types of learning styles and personality traits just to mention some of the factors that matter in this context. Information search does not play a major role purely in terms of consciousness among students, but that it of course gets more importance the longer you get in the study. In general, students are happy with the tools and aids that the libraries make available, but the research also indicates that the knowledge of them is generally overlooked and that extensive use of them should not be too cumbersome. The students' use depends primarily on the requirements of the teachers at their educational institution.

The constructivist and post-constructivist perspective on learning puts the transfer of knowledge and skills from teacher to student in a second plan, emphasizing the active role of the pupil / student in their own development of knowledge and skills. We are talking about a new perspective, which places learning in a process of co-participation. The new vision of learning (Situated learning), explore the situational character of human understanding and communication (Popa, D., 2013).

In 2007 the module based web-course "Søk&Skriv" (Search & Write) was launched, developed in collaboration with the academic libraries at the University of Oslo and Bergen, the Bergen University College, NHH Norwegian School of Economics, and Aalborg University in Denmark (www.sokogskriv.no/en). The idea behind the development of the web-course was to develop good models for academic writing combined with tips for better searches. What characterizes writing as a good academic artisanship, and how students, through methodically reading of text, may gather information and use this in an ethical way in their own texts.

In the continuing development of «Søk&Skriv» the library has passed from a focus on theories behind search to directly showing how a student, through planning of the search operation may have a better basis for finding the needed information. The web-course presents searching as a systematic operation, and the students say that they are well helped when it comes to search, and the information source examples are plentiful and concrete (Kavli et al 2014:25)

As mentioned, the Norwegian Qualification Framework (NKR) emphasizes that bachelor students (1 cycle) "can find, evaluate and refer to information and scholarly subject matter and present it in a manner that sheds light on the problem". It further expects master students (2. cycle) to be able to "analyze and deal critically with various sources of information and use them to structure and formulate scholarly arguments".

In the Søk&Skriv website these demands are articulated through a concretization of what characterizes good handling of information. The library sees as important that students become competent to utilize information in an appropriate manner in their studies and research. This presupposes a strengthened understanding of what it means to evaluate information and sources in

a creative and ethically correct manner. This competence may be transferred to other areas (Kavli et al 2014:31).

10. PRACTICAL COLLABORATION ISSUES

The library quickly realized, when the call for developing the library trainings to include more information literacy skills, that this would require close collaboration with the academic departments and the professors/teaching staff. The university leadership encouraged the development of information literacy courses, but the departments are the organisational level where the practical work needs to be done. The main challenge has been to get the students to come to the courses offered. One helpful thing is when the administrative staff at the department includes the library training in the students' schedule in the learning management system. Another is when the teacher recommends the library training to the students, or even joins them in the library teaching session.

The library has also developed the information literacy trainings to have a progression from the first year introductory course to the specialized trainings at master level. There is always a balance to be considered, between the boredom in repetition for the students that have participated already, and the confusion of students who has not participated in the course on the lower level.

However, with the Søk & Skriv modular web-course to use as a refreshment tool, and the constant pedagogical developments from the library, in close cooperation with the departments and academic staff, the students are well served.

The Library has not tried to use formal assessment as a means to attract students to the trainings.

11. CONCLUDING REMARKS

Information literacy is an academic tool that gives students on all academic levels profound academic outcomes, insights and knowledge unparalleled in academia. We have to develop and improve this tool technically (digitally, electronically, etc.), institutional and individual. All academic institutions (faculties, institutes and centres) must develop information literacy programmes and stimulate their teachers and researchers to take part in this vital investment. Nobody should have any professional excuse not to take part in the development and practices linked to information literacy. Teachers and scholars at all academic levels should be trained in using information as often as possible.

Faculties and institutes not trained in information should be specially trained in using information literacy tools and methods. And above all, teachers and scholars without any training and with low motivation should be focused on specially to gain practices, experience and insight. To participate in information literacy programmes should be compulsory, and information literacy activities should be a natural part in all teaching and research.

Both materially and mentally, the conditions must be facilitated for good relations and optimal communication between faculties and departments on the one hand and the academic libraries on the other. In addition, the universities have to – on the management level, at the faculty level and at the department level – set aside funds for relevant costs and secure employees have enough time to work on relevant information literacy tasks.

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COBISS FOR ALL GENERATIONS PROJECT OF INTEGRATING SCHOOL LIBRARIES INTO COBISS

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ABSTRACT:

COBISS.net is a regional network of library information systems and current research information systems with more than 1300 participating libraries from 7 countries. The autonomous national library systems COBISS.XX cooperate in processing material according to common library rules, in training of employees, managing researcher's bibliographies, exchanging records on a daily basis and coordinating in professional issues. The COBISS.net network, which operates on a uniform technological platform COBISS, includes all major libraries of participating countries. These are national, university, special and public libraries and in some countries even school libraries. The entire COBISS.net network includes more than 1.4 million active library members, which annually borrow, renew and reservemore than 33.4 million items of material, while the university and special libraries are connected into systems and services of full-text database providers via the members database. In 2018 we have completed a two-year project of including school libraries in Slovenia. The presentation will showcase the procedure and the results of including 463 school libraries into COBISS.SI.

Key words: information systems and services, information technology, libraries, databases, COBISS.net, COBISS.SI, IZUM, school library, community, information literacy, lifelong learning

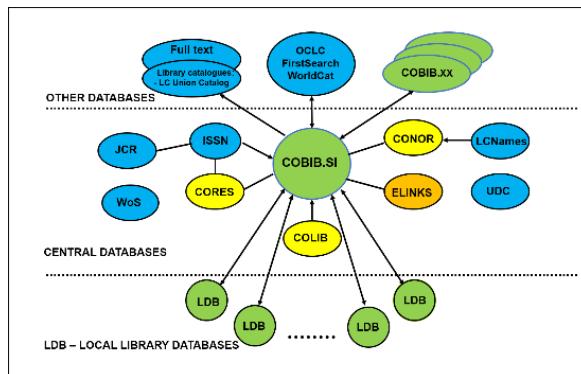
1. INTRODUCTION

From the early beginnings (in 1987) the vision and the goal of the creators of the COBISS system was to connect all libraries in the country into a uniform library information system, which would include different types of libraries with unified cataloguing and common rules of operation. This was started in the former country (of Yugoslavia), and after its breakup, the co-operation continued with most of the newly formed countries. Later two more countries from the Western Balkans region joined the network. This article describes the COBISS system, the expansion of the COBISS system within the COBISS.net network, the co-operation among the system members and the role of IZUM (The Institute of Information Science) in establishing, co-ordinating and developing the COBISS system. Special emphasis will be placed on the prevalence of the COBISS system in Slovenia, because of the wide variety of libraries participating in the system – from the largest national library to the smallest school library.

2. COBISS SYSTEM AND COBISS.NET NETWORK

COBISS is an acronym that stands for Co-operative Online Bibliographic System and Services (COBISS, 2019) and it represents an organisational model of connecting libraries into a national library information system with shared cataloguing, COBIB shared bibliographic/catalogue database and local databases of the participating libraries, COLIB library database, CONOR authority database (database for authority control of personal and corporate names) and with multiple other functions. At the same time, the acronym also stands for the adjoining software which has been the precondition for the online communication link between the libraries from the beginning. The basic concept of the COBISS system is to connect as many different types of libraries as possible into a uniform system via standardized and shared cataloguing (each item is only catalogued once) of different types of library material. Consequently, this improves the quality of bibliographic records and rationalizes the work of the participating parties through unified management of catalogues and bibliographies. The added value of such a concept is the multifunctionality of records in bibliographic/catalogue databases which are then used for various

purposes, locally and globally. The most prominent is the use for publicly available publication of research results (Authors/researchers, 2019). The basis for a high quality and efficient operation of the COBISS system is the qualification of professionals for shared cataloguing (specialized librarians – cataloguers).

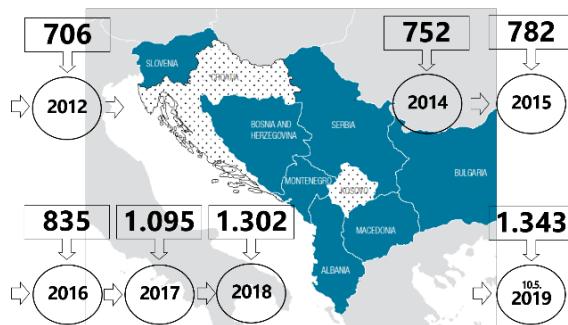


Picture1: Shared cataloguing in COBISS.SI

A common feature of shared cataloguing is a strong link between local databases (catalogues) of individual libraries with the shared COBIB database (union catalogue). In both, the COBIB shared bibliographic database and the local databases of all participating libraries, the structure of bibliographic records and that of summary holdings data is the same. The local databases additionally contain uniformly structured copy-specific holdings data, vital for the local library functions and for the display in the COBISS+ online application (COBISS+, 2019). For creating records for serial titles, the international ISSN database is used as the authority database; from the ISSN database, the relevant data is downloaded into COBIB and the local databases. It is also possible to download bibliographic records from WorldCat and from the Library of Congress Union Catalog (Picture1). Because databases contain bibliographic records for different types of material (monographs, serials, integrating resources, articles and other component parts) and additionally also records for performed works, the bibliographies for all registered researchers can be publicly downloaded from the COBISS system. For the preparation of personal bibliographies of researchers within the COBISS system, a unified typology of documents/works must be used. The bibliographic units are classified in accordance with the aforementioned typology. The type of every bibliographic unit is specified according to the definitions in the prescribed typology (e.g. original scientific article, review article, professional article, scientific or professional monograph, scientific or professional conference contribution, etc.).

The third generation of the COBISS software used by librarians (2000 of active users per day) for library automation and access to various databases is comprised of software modules for cataloguing, loan, holdings, serials, acquisitions, interlibrary loan, electronic resources, reports and application administration. Users can use the free online applications COBISS+ and Mcobiss (a version of COBISS+ adapted to mobile devices) (mCOBISS, 2019) for searching material that can be in printed or electronic form (records can also contain links to full texts), searching in other specialized databases and other information resources, as well as for library services such as the My COBISS (My Library) service (Picture3). COBISS+ (mCOBISS) provides information about the availability of an individual copy to the users (whether the material is available or on loan, due date), and they can use My COBISS to check the loan history, renew the loan period, reserve material, order material via interlibrary loan, check the current status of debts, settle outstanding debts online and subscribe to electronic notification services.

At the same time, COBISS is also a model of a system representing the platform for the national library information systems in Slovenia, Serbia, North Macedonia, Bosnia and Herzegovina, Montenegro, Bulgaria and Albania (Picture2).



Picture 2: The COBISS.net network and the number of participating libraries (by year)

All these systems are interconnected into the COBISS.net regional network (COBISS.net, 2019). COBISS.SI, COBISS.SR, COBISS.MK, COBISS.BH+COBISS.RS, COBISS.CG, COBISS.BG and COBISS.AL are designations for the autonomous library information systems that are being established in individual countries. Table 1 shows the results of use in numbers of the COBISS systems in the COBISS.net network from the beginning to the year 2018.

Table 1: Library usage in the COBISS systems (31 December 2018)

	SI	BH	MK	SR	CG	BG	AL	RS	.net
Joined (year)	1987	1998	2001	2003	2003	2010	2012	2014	
Libraries	910	61	53	204	37	2	30	24	1,321
Records	15.7 m	702,603	1.1 m	7.8 m	743,847	1.1 m	133,603	325,439	27.6 m
Holdings	23.8 m	1.3 m	2.2 m	10.2 m	890,198	968,622	75,349	487,363	40 m
Transactions	31.1 m	253,784	324,554	1.6 m	41,649	26,090	/	81,676	33.4 m
Members	1.2 m	31,800	34,151	146,817	7,053	5,303	/	4,222	1.4 m
Searches	29,2 m	521,200	330,947	4.2 m	237,073	933,780	22,451	143,160	35.6 m

Each national library information system built on the COBISS platform is co-created by the National COBISS Centre (NCC) and the libraries as members of the system. COBISS.net is an established international development cooperation project for the development of national library information systems and current research information systems (E-CRIS.XX). Linking between the two systems is crucial for managing researchers' bibliographies and evaluating research results.

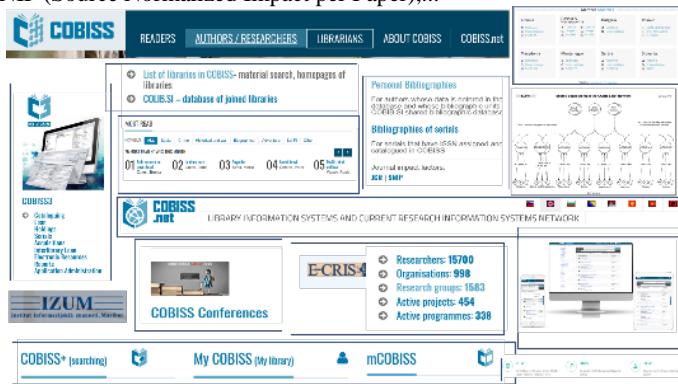
At the same time, COBISS.net is also a form of cultural cooperation, which is especially appreciated in the region, as it contributes to mutual understanding and dialogue. Previous collaboration has yielded very positive results. Since 2003 (when the Agreement on the establishment of the COBISS.net network and the free exchange of bibliographic records created

in autonomous library information systems) by the end of 2018 there have been over 739,416 bibliographic records exchanges between the systems (COBISS.net in numbers, 2019). In the beginning of May 2019, the seven shared COBIB databases contained more than 11.7 million of bibliographic records and the local databases of more than 1,342 libraries contained more than 28.6 million of bibliographic records and more than 41.1 million holdings entries. In 2018, libraries created only 25% of new records on average in their own databases and downloaded 75% of records, which saved a lot of time and money. Because of its extensive co-operation, the COBISS.net network is very important for the development of the Western Balkan region and its successful integration into the EU.

3. COBISS.SI SYSTEM AND IZUM

COBISS.SI is an autonomous library information system that already includes 914 Slovene libraries as of the beginning of May 2019. This is 97% of all libraries registered in Slovenia (COBISS.SI, 2019). The system includes all types of libraries: national, academic (83), special (132), public (62) and school (636) libraries. This also includes eight Slovene libraries abroad. In the COBISS.SI system, 680 licenced library professionals actively create in average more than 160,000 records per year (Dornik, 2019). And in the libraries, more than 1200 librarians actively use the software for their work in various software modules on a daily basis.

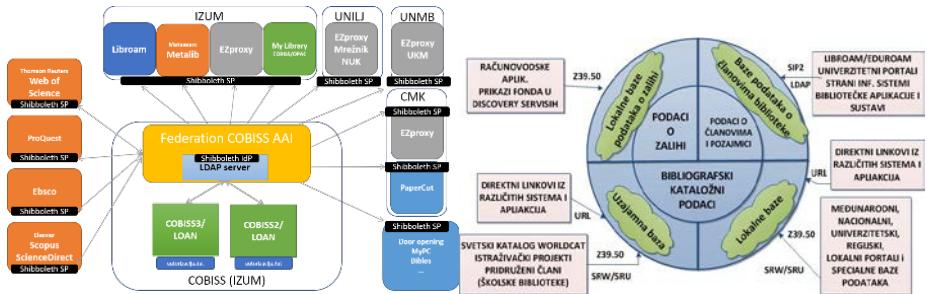
The COBISS.SI system provides its users, who performed 29,150,925 searches, created 26,653,757 reports and carried out more than 33,427,753 loan transactions, reservations and loan renewals in 2018 (STAT, 2019) access to the bibliographic/catalogue databases of the participating libraries as well as access to other databases like COLIB.SI, CONOR.SI, SGC, CORES.SI, ELINKS.SI and other information resources, such as JCR (Journal Citation Reports®), SNIP (Source Normalized Impact per Paper),...



Picture 3: Functionalities of the COBISS system

Data collected in the COBISS.SI system is used for various purposes through publicly accessible applications (Picture 3). Applications like the online application Bibliographies (Osebne bibliografije, 2019) enable the preparation of various personal bibliographies reports from the COBISS system as well as from the SICRIS system (Slovenian Current Research Information System) (SICRIS, 2019). Within COBISS you can prepare a report of a personal bibliography for any author or serial. The SICRIS system enables you to prepare personal or research group bibliography, assessed bibliography according to the SRA (Slovenian Research Agency) reports required for the appointment to titles at universities and citation reports. The web application Most read books allows preparing the list of most frequently borrowed items within a certain

period of time (based on loan statistics of libraries with automated loan). The web application Public Lending Remuneration Scheme allows the preparation of the lists of borrowed items (i.e. loan statistics) by authors who are entitled to payment (under the criteria of the competent state authority) based on the number of loans of their works in libraries. The data from local databases of libraries is also available on the Z39.50, SRW/SRU, OAI-PMH, LDAP and SIP2 servers for various local applications or connections with different services needed by libraries to perform their duties (Picture 4).



Picture 4: COBISS Data sharing to other systems (Petek& Šobot, 2014) (Šobot et-al., 2013)

IZUM is a public institution established by the Government of the Republic of Slovenia as an information infrastructural service for Slovenian science, culture and education (IZUM, 2019). Along with other agents of information activities in the country, it ensures that Slovenia is a part of the modern information society. According to the Research and Development Act, IZUM is defined as a public infrastructural institution and registered as a research organisation. According to the Librarianship Act, it is defined as a library information service in the COBISS.SI national bibliographic system. IZUM is a non-profit organisation, a public institution with more than 110 employees. For almost a quarter of a century, IZUM has been present in the wider region with its professional and innovative initiatives, and over this period it has won the trust of the public. IZUM has become an important regional centre for the development of library information systems and research information systems. This was also recognised by UNESCO, who, at its General Assembly in November 2011, awarded IZUM the status of a UNESCO Regional Centre. IZUM performs its activities for the users in the Republic of Slovenia on the basis of the annual Action Plan, which is mainly financed by the Slovenian Research Agency. IZUM carries out part of its activities on the basis of special agreements with direct users or subscribers to the services from Slovenia and abroad.

The activities of IZUM are mainly engaged in the development and operation of the COBISS system and services, which represents the core of the library information system in Slovenia and of library information systems in some other countries linked in the COBISS.net network. IZUM and the national COBISS centres outside Slovenia have concluded individual umbrella agreements, based on which IZUM provides the know-how for organising and managing a library information system on the COBISS platform and COBISS software for library automation, which is IZUM's original product as well as computer capacities for the operation of the system and the central services. IZUM does not cooperate directly with the libraries from the participating countries, because this role is carried out by the national COBISS centres. IZUM also develops the SICRIS, which not only includes data on research organisations, researchers and research projects, but also supports the development of similar systems (E-CRIS) in other countries. On the basis of consortium agreements with foreign e-resource providers, IZUM provides users in Slovenia with free access to different foreign databases and services (Web of Science, OCLC

FirstSearch, ProQuest, etc.). On the scientific and professional basis, IZUM co-operates with similar organisations worldwide; in accordance with the guidelines of its founder, it has also expanded its activities abroad.

IZUM holds various staff training programmes (librarians and IT staff) (in 2018 there were 140 days of training courses held for 921 participants), organizes specialized workshops and international COBISS conferences (COBISS conferences, 2019).

4. PROJECT FOR INCLUDING SCHOOL LIBRARIES INTO THE COBISS.SI

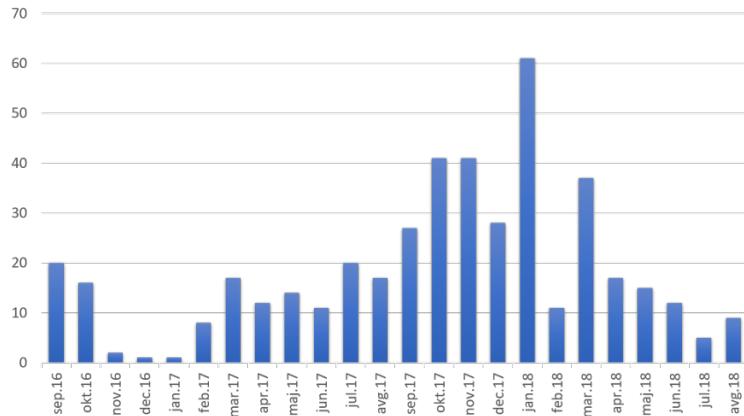
Ever since the beginning of the COBISS system, IZUM has ensured that the COBISS system is also suitable for school libraries. The most important advantages for school libraries participating in the COBISS system are the possibility of downloading bibliographic records from the shared COBIB database into the local database of the library, automation of local library functions, compliance with the General Data Protection Regulation (GDPR), help and counselling via e-mail, telephone or reference service, inclusion of their library into the COBISS+ web application, co-operating in and using the web applications Most Read Books, Biblos, Public Lending Remuneration Scheme and Online Learning. By using the COBISS+ web application, the school library users can view the local database, use the My COBISS service (MyCOBISS, 2019), access and view the local database of any library participating in the COBISS system and use the mCOBISSmobile application (Picture 3). Finally, when developing the COBISS system, IZUM adhered to the principles of the IFLA/UNESCO school libraries manifesto, which means that the entire school population has a uniform library information system available for the duration of the education process.

Table 2: School libraries in COBISS.SI

Date	Primary schools	Secondary and upper secondary schools	Music schools	Other	Total
31 Dec 2015	87	76	2	7	172
30 Apr 2019	474	117	31	14	636

In the past, the strategy for library automation in smaller school libraries was aimed (by the ministry) towards preparing local applications for cataloguing and lending school library material, so the majority of school libraries adhered to these recommendations. Therefore at the end of 2015 the share of school libraries in the COBISS.SI system was only 27%. Larger secondary school libraries (secondary and upper secondary schools), especially in schools with an international curriculum, were individually included into the COBISS.SI system based on the judgement of the management and professional staff. As the years went by, most larger school libraries were gradually included in the system, so by the end of 2015, the system included 65% of all larger school libraries (Table 2). Even some primary school libraries decided to take part in the common system, however, only 18% were included in the system. The remaining 9 libraries were from music schools, kindergartens, boarding homes and various institutions for students. As a rule, the decision for inclusion in these smaller schools was influenced by library professionals who were familiar with the advantages of the COBISS system over local applications based on studies and personal experience. And so, in the last 15 years, IZUM (based on long-lasting experience) prepared some project tasks with the intention to include the remaining school libraries by gradually including all school libraries in accordance with the funds available for this purpose, but these projects were never completed for various reasons.

An important factor and a key development towards the inclusion of school libraries into the COBISS.SI system was the passing of the Act Amending the Librarianship Act (ZKnj-1A) (Official Gazette of the Republic of Slovenia, No. 92/2015), which entered into force in December 2015. In accordance with the act, all school libraries that were not yet using the COBISS system were required to adapt the COBISS.SI system within three years (Žnidarec, 2019).

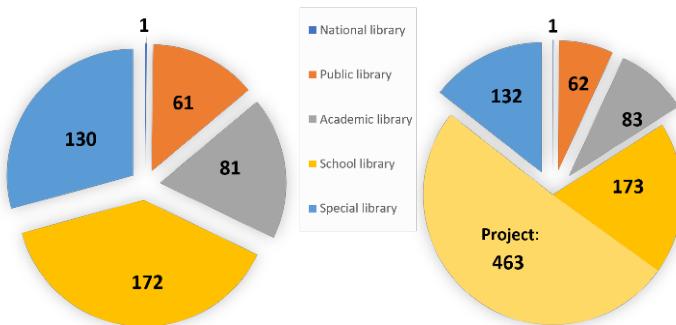


Picture5: Training courses by month

The preparations for implementing the project of the inclusion of school libraries into the COBISS.SI system began immediately. Aside from the school libraries, IZUM, the National Education Institute Slovenia and the National and University Library participated in the project. The formal condition that needed to be met by the libraries was the signing of the agreement for participating in the COBISS.SI system – full membership. After that, the libraries needed to ensure the technical requirements by acquiring computer equipment. This was followed by the training of school librarians, which took place in multiple stages and was performed by the National Education Institute Slovenia, the National and University Library as well as by IZUM that provided the training for using and implementing COBISS software. The training was co-financed in the framework of the project Strengthening competences of professionals in the field of managing an educational institution in the period from 2016 to 2018 and it took place from 1 September 2016 do 31 August 2018. The National Education Institute was tasked to organize the training and it signed an agreement with IZUM, which required the National Education Institute to hold training sessions for up to 450 persons (one person from each school) in the specified period. The training was free of charge for one participant from each school. IZUM co-ordinated the dates and locations of the training sessions with the National Education Institute. Because there were 450 libraries to be included in a 24-month period (Picture5) the contents of the training, the number of participants on individual dates and of course the number of dates needed to be adjusted.

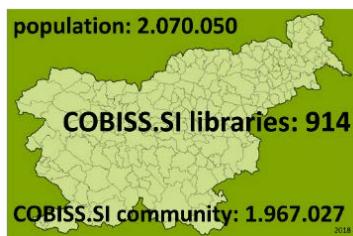
After the training, IZUM started the final stages of the inclusion. The first urgent task was to document the holdings in libraries and prepare Holdings minutes and Loan minutes which form the foundation for implementing the COBISS software environment. Immediately after receiving the data required for the implementation, the environments were installed on IZUM's servers and school librarians could begin working in the COBISS system. Considering the time frame of the training, the entire procedure of preparing and verifying the minutes as well as implementing the local database needed to be carried out in groups of 20–30 libraries in less than a month on average.

In December 2018, the project of including school libraries was completed successfully despite significant initial challenges. Today, school libraries represent an important component of the local, regional, and national library network because there are 636 libraries participating in the COBISS.SI system (Picture6). The number of included libraries in the framework of the project alone is 463.



Picture6: School libraries in the COBISS.SI system before and after the inclusion project

Today COBISS covers the entire active reading public of Slovenia (Picture 7). With the majority of school libraries included in the COBISS.SI system, it became a proper Slovene library system. School-goers now have a unified library information system available throughout their education process and it enables them the use of all functionalities of a modern library catalogue.



Picture 7: Active reading public

5. CONCLUSION

The COBISS system is designed as a national library information system which allows the participation of different kinds of libraries with the purpose of ensuring open access information in a shared, professional manner while adhering to uniform rules to the end user in their own country as well as between participating countries in the wider region. School libraries were given a role of an important partner in the local, regional and national library network. And so, COBISS covers the entire active reading public of Slovenia, i.e. all individuals who see books as quintessential tools in their everyday life – in education, professional work, relaxation and entertainment, artistic experiences, interest in current developments, etc. The model of including school libraries has been successfully tested by completing the project and can be used as such by other COBISS members in case a similar project would be implemented in the entire region or the COBISS.net network.

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UTILIZATION OF ALTMETRICS AS A MEASURE OF TRUST OF ARCHIVAL DATA

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ABSTRACT:

Altmetrics is a new method that is currently used to capture the impact of published scholarly works based on data visibility on the web as a supplement to traditional bibliometrics methods. There is a lack of studies on altmetrics adoption by archives and cultural heritage organizations. Therefore, the aim of this paper is to explore the potentials of embracing altmetrics as a trusted measure of archival data.

Key words: Archival data, Archives, Altmetrics, Bibliometric Methods

1. INTRODUCTION

It is important to understand the value of unstructured metadata in supporting the users' engagement with records and archives. However, there are limited studies that cover this area. This limitation exists, it is observed, because of financial constraints in recruiting experts, a lack of skills among archivists, as well as the time required to conduct a user-based evaluation (Kelly, 2017; Duff et al., 2008). In addition, the volume of records keeps expanding exponentially and, therefore, creates a need to have a reliable method to measure the value, visibility, reliability, and the impact of these records (Papakostidis&Giannoudis, 2018). At the same time, communication methods continue to evolve with and about archives in the era of social networking platforms (Kelly, 2017). A new method called altmetrics (alternative metrics) which is currently used to capture the impact of published scholarly works as a supplement to traditional bibliometrics methods, may be used on archives to find the impact of the online holdings, including the unpublished electronic collections, digital repositories, and government information (Thelwall et al., 2013; Kelly, 2017; Das, 2015).

2. ARCHIVAL DATA

Archival data is defined as information that have been previously aggregated by others and can be utilized in systematic studies (Jones, 2010). There are five major categories of Archival data that have been classified in previous literature (Jones, 2010; Singleton & Straits, 2005) - Public documents and official records; Private documents; Mass media; Physical, Nonverbal materials; Social science data archives. The use of archival data research process involves one or more of these purposes: "general research procedures (e.g., procuring data, data documentation, data sharing), research design (e.g., cross-sectional, short-term longitudinal, long-term longitudinal designs), measures (e.g., types of measures used, missing measures), and samples (e.g., sample size, sample type)" (Jones, 2010).

3. ALTMETRICS

Altmetrics is a relatively new discipline of analysing scholarship based on data visibility on the web (including: social media, mainstream media mentions, peer reviews, and citations to research in policy documents) (Priem et al., 2010). Altmetrics measure a broad aspect of research visibility and impact in comparison to bibliometric methods, and provides a supplement to the traditional impact factor methodology based on citation filters (Fenner, 2014). For instance:

- (1) Citation, h-index, and journal impact take relatively long time to be measured waiting for the cycle of publication to be completed and for studies to be cited by others.
- (2) Bibliometric methods overlook new forms of scholarly content such as scripts, videos, datasets, conference, news, presentation slides, and research blogs.
- (3) Altmetrics can capture the impact of research outside of academic publishing, potentially resulting in the discovery of unidentified readers, and identify value further than the traditional scholarly consumption groups.

(4) The current impact factor methodologies embrace a “quantity over quality” argument. However, analyse social media conversations about publications and analyse the reason for mentioning or citing a work.

(5) The journal impact factor explores the impact of entire journals; altmetrics instead explore the impact of each individual publication.

Stacy Konkiel and Dave Scherer (2013) indicated three values for using altmetrics to institutional repositories. First, altmetrics can be used by repository administrators in persuading the potential depositors that there is added value in providing open access to their content. In other words, increasing altmetrics scores might have an impact on increasing the deposit rates. Second, collecting figures beyond general usage statistics can inform university administrators the value of the institutional repositories as a platform for hosting open access content. In addition, understanding the impact of repository content on the community can be used to build a case for community engagement. Third, altmetrics can complement traditional usage statistics to support collection development plans, and can be used for resource allocation and marketing purposes.

Altmetrics are categorized in the following ways (Cave, 2012): usage (e.g. HTML views, PDF/XML downloads, book holdings), captures (e.g. bookmarks, favorites, readers, groups), mentions (e.g. blog posts, news stories, Wikipedia articles, comments, reviews), social media (e.g. user activity from Twitter, Google+, Facebook), citations (e.g. CrossRef, PubMed Central, Web of Science, Scopus, Microsoft Academic Search).

4. ARCHIVES AND ALTMETRICS

The lack of studies on altmetrics adoption by archives and cultural heritage organizations does not say that these institutions are not embracing social media. Indeed, there are many studies conducted on the use of social media by archives and cultural heritage organizations, however, these studies focus on the use of social media to increase the awareness of archives, instead of studying their impact on archival holdings (Kelly, 2017). For example, there is scholarship available to guide repositories in planning and evaluating their social media activities. These guidelines indicate the need for engaging and encouraging conversation about archival holdings by utilizing web technologies. In a study on the use of social media by repositories, Robert Schier (2011) stated that many repositories adopt social media as a tool to promote their collection instead of establishing a trusted relationship with users. Another study showed that special collection departments in research libraries have succeeded in using social media for promoting purposes. However, they were less successful in developing relationships via social media and engaging with external users (Griffin & Taylor, 2013).

The value of capturing users' feedback on archives, and the difficulty to do so, were highlighted in previous studies. Martha O'Hara Conway and Merrilee Proffitt (2012) mentioned that assessing archival collections is essential for helping institutions become more user-centered. Lisa R. Carter (2013), argued that knowing the collections and how they are used can help with writing grants, informing new accessions, and in evaluating the workflow and instruction. They also stated that collecting user-driven data that measure how scholars interact with the tools available is critical. A study published in 2008 about archivists' views of user-based evaluation found that archivists valued user feedback, but the evaluations lacked standardized measures (Duff et al., 2008). For example, the study indicated that users based value on the “success of the user's most recent search or visit” (Duff et al., 2008). In another study, user feedback about their use of digital collections was found to be vital for collecting institutions to prosperously demonstrate the significance of their collections (Marsh et al., 2015). However, archives assessment demonstrates a shortage of “reliable measures of institutional impact or nuanced portraits of audience engagement”, as reported in a yearlong interdisciplinary research on assessing and indicating the value and impact of digitized ethnographic collections (Marsh et al., 2015). Furthermore, the lack

of methods for using data-driven decision-making in institutions impacts the change and definition of metrics which allow for cross-institutional comparison (Chapman & Yakel, 2012). There are many potential benefits for using altmetrics for archives (Kelly, 2017). Altmetrics can facilitate new methods of tracking collections, where archives can find discussion of their collections in virtual spaces. This may provide archives an opportunity to show the effect and influence of their holding in both academic and non-academic environments. Likewise, since altmetrics capture data beyond scholarly works, altmetrics may help archivists better understand the diversity and representation of how collections are being used. Moreover, archives can enhance other services by adopting altmetrics to influence decisions about digitization, accessions, and processing priorities, as discussion of users' needs in these areas may be occurring online.

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INFORMATION LITERACY IN THE SCIENCE OF HISTORY

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ABSTRACT

The paper wrote about information literacy in the science of History pointing out that this scientific field in Bosnia and Herzegovina follows the world trend or how historians in their research in addition to traditional ways of research use new ways introduced by information literacy such as the Internet, digital browsers, digitized books, digitized journals and digitized archive materials. Moreover, the paper deals with information literacy and the use of new technologies in the method of teaching history from primary and secondary education upto Higher Education level.

Key words: science of History, History teaching, historical sources, historian, information literacy, Bosnia and Herzegovina.

Contemporary researches in the science of History in Bosnia and Herzegovina follows the world trends which has radically expanded the field of History: *The fading of the past history bipolarity has not led to "the end of history," as some theoreticians proclaimed but the world has entered a new era, historical era which is currently running, "the time of the present."* (Mandić, 2008: 13–14). Due to these and similar movements contemporary scientific doctrine of History includes terms: the new world order, post-socialist society, globalisation, unipolarity (Mandić, 2008: 14).

The commercialisation of the Internet and its application in all the spheres of modern society are the principles based on which the mankind functions now. It is inconceivable to do any research in any scientific field nowadays without using the information resources, therefore, it is almost impossible one can participate in the development of scientific achievements unless having the basic knowledge of information literacy. The same definition applies to History, whether it is research in History as science or the method of History teaching. It is widely known that in the research approach there are six steps that need to be mastered in order to achieve the results, and one of the steps is locating sources based on which the research will be carried out and the obtained results presented.

In the science of History, until the emergence of information resources and digitization there were two types of sources used, primary and secondary printed sources. However, since the introduction of information resources in scientific research the process of scientific research has accelerated, although the emergence of electronic publications and the digitization of archive material did not change the division of resources to primary and secondary ones. In addition to simplifying and faster search of literature and archive resources, the Internet has enabled faster and easier communication among researchers and historians around the world resulting in the process of scientific communication having three aspects: informal communication among historians during the collection of research material, exchange of opinions, suggestions during the preparation of scientific work and distribution of texts (citation) through later scientific works of other historians.

Historically, the "chain of" information transmission varied from verbally then in writing up to electronic one nowadays. So with the development of IT resources and their entry into the wider application, there was a change in the traditional system based on the information transmission in printed paper which has led to the emergence of electronic books, electronic journals, electronic databases, etc. Briefly defined historians can access information today through information resources from various primary or secondary sources such as libraries or archives but also in formal or informal communication with fellow historians around the world.

In Bosnia and Herzegovina, the most important system of scientific information from libraries is the COBISS system (Co-operative Online Bibliographic System & Services). COBISS system is

an organisational model used to merge libraries funds into a unique library-information system with mutual cataloging. In addition to Bosnia and Herzegovina (the Republika Srpska has an autonomous system from the Bosnia and Herzegovina system but shares a common platform with other members), this system is used in Slovenia, Serbia, Macedonia and Montenegro. All countries have autonomous systems but they share a common platform. Also, historians in Bosnia and Herzegovina have a possibility, as well as any other historian in the world, to do research through Google Books as well as other Internet services.

As for the web site, the vast majority of libraries in the Republic of Srpska and Bosnia and Herzegovina have good and transparent websites: the National and University Library of the Republic of Srpska (<http://nub.rs/pocetna/>), the Home Library East Sarajevo (<http://www.matbibli.rs.ba/>), Gazi Husrev Bey's Library of Sarajevo (<http://www.ghb.ba>), National Library of Mostar (<http://www.nbm.ba/>), Library of Sarajevo (<http://bgs.ba>).

For historians, the most important material is found in the archives and these institutions represent, as Knut Kjeldstadli defined it: *our common memory* (Ćelstali, 2004: 175). The main task of the archives is to protect cultural and historical treasure and to ensure that these testimonies are available to present and future generations of researchers. In order for this work to be done adequately archives today have the task of ensuring that the originals of preserved archive material are less used and to use as many copies as possible or alternative forms of using the archive material such as photocopy, microfilm and digital document (Porubović-Vidović, 2000: 292).

Today there are more and more archives in the world that digitize their archives as is the case in Bosnia and Herzegovina. Most archives in Bosnia and Herzegovina work on digitization of their archive material, but due to workload and insufficient financial support this job runs slowly. However, materials are available in digital form in all archives in Bosnia and Herzegovina including the two largest ones: the Archive of Bosnia and Herzegovina in Sarajevo and the Archive of Republika Srpska in Banja Luka. The procedure for obtaining digitized archive material is to investigate the fund on the spot and mark the signature that one wants to digitize and then make a payment for the digitization of the requested material and wait for the digitization process to end in the archive service in charge of the job. Also, in some archives in Bosnia and Herzegovina it is possible to order digitization of the material via e-mail, if they know the signature of the requested documents, but also getting the requested archive material via e-mail after the ordering and payment made to the account of the archive according to the determined price list.

It is very important to historians that the archive fund is fully digitized and available in digital form for searching, otherwise, if archive material was selectively digitized, misinterpretation of historians researchers of this material may occur when using and drawing false conclusions based on the partially available material which can especially happen if the historian researcher is not a good connoisseur of an epoch or a problem that explores on the basis of archive material. Also, significant help to historians in the search of digitized archive funds is a well-edited archive site where significant assistance was provided through transparent digital signatures. Moreover, if there is such an option there is a possibility to search by timestamp or keywords. In Bosnia and Herzegovina currently there are good and transparent Internet sites of the Archive of Bosnia and Herzegovina in Sarajevo (<http://www.arhivbih.gov.ba/>), the Archive of the Republika Srpska in Banja Luka (<http://www.arhivrs.org/>), Historical Archive in Sarajevo (<http://www.arhivsa.ba/wordpress/>) and Archive of the Tuzla Canton (<http://www.arhivtk.ba/>).

To the extent that the Internet and the digitization of sources and literature have opened up large and multifaceted opportunities to historians in the advancement and faster advancement and development of historical science, they have brought a number of problems with them and the most important was, and remains, the way of quoting digital sources and sources from the Internet. As a historian always has to indicate from which source or literature there was his

response to the problem he was dealing with in his work, the citation of sources and literature in his critical apparatus was subject to strict control. Thus how the standards of quoting printed sources and literature were not fully adapted to the citation of sources and literature taken from the Internet there are a number of problems that historians encounter in their work (Мандић, 2007: 222). To the extent that the Internet and the digitization of sources and literature have opened up large and multifaceted opportunities to historians in the advancement and faster advancement and development of historical science, they have brought a number of problems with them and the most important was, and remains, the way of quoting digital sources and sources from the Internet. As a historian always has to indicate from which source or literature there was his response to the problem he was dealing with in his work, the citation of sources and literature in his critical apparatus was subject to strict control. Thus how the standards of quoting printed sources and literature were not fully adapted to the citation of sources and literature taken from the Internet there are a number of problems that historians encounter in their work (Мандић, 2007: 222–223). However, this attitude of a part of historians did not stop the use of data from the Internet and digitized data that are portable through various modes, among others, initially through diskettes, and later via CD, USB, etc. With the advent of e-mail, discussion forums and blogs we have come to the emergence of *new types of historical sources* but also less and less use of *letters, postcards, diaries, records and telegrams* (Мандић, 2007:223). Also, when it comes to Internet sources, historians still have a certain degree of criticism and suspicion in certain defects due to their susceptibility to various forms of change, abuse on the Internet and the change of page content (Мандић, 2007: 223).

When it comes to the method of quoting today we have more guides for citations in the world and it depends on science to science as well as from the research institution which one will be taken for application. In Bosnia and Herzegovina the American Psychological Association (APA) and the Chicago Manual of Style are most commonly used. The Chicago Manual of Style is the most prevalent among historians in Bosnia and Herzegovina and the Republic of Srpska. This guide issued by the University of Chicago, has been providing a complete and satisfactory instruction for quoting electronic information since 2003. Regardless of which quotation guide is in use, everyone agrees in one that data downloaded from the Internet is quoted in the following way: the name of the website, the page update, the protocol and the address and the date of access (data downloads) (Мандић, 2007: 224–225).

When it comes to the doubt about the citation of the archive document, often more to the document a source was cited (the archive fund) from where the document was taken in addition to the document itself. A satisfactory form of citation should only contain data on the electronic form of the document (Мандић, 2007: 227).

It is known that historical knowledge is based on the study of historical sources and literature and that under the study of this discipline there are knowledge that can be divided into three groups by the content: history, methodology and theory of historical science which in sum represents the notion of scientific historiography (Ђуровић, 2010: 20–21). The teaching of history in primary and secondary schools contributes to the acquisition of knowledge from the past, i.e. scientifically established material is didactically and psychologically transmitted from science into teaching and was adapted to the age of the pupils in order for them to understand the past of mankind, but, as far as possible, through the basis of history to understand the present and be ready to foresee the future (Pejić, 2011: 7). In order for the teacher to present the past to the student and at the same time provide the ability to understand the present, it is necessary to explain in a comprehensible manner how the present time is met in the reconstruction of the past in the present (Делетић, 2006: 8).

The methodology of teaching history follows the trends of the scientific study of history (Страдлинг, 2001: 12). As it became a resource in research in historical science, the Internet has become an unavoidable resource in the teaching of history. In the teaching of history when using Internet resources and data from the Internet in the classroom a historian-teacher needs to identify

primary sources from secondary ones and to be completely sure of the credibility and reliability of the data before their application in the teaching. In addition to downloading data from the Internet teachers can also use word processing programs as an additional teaching tool but also open their own websites that can be used by students. Through these pages students can download the necessary materials for teaching (Страдлинг, 2001: 204–205; Pejić, 2011: 154–155). All of this is widely used by primary and secondary schools teachers in Bosnia and Herzegovina because it is the cheapest and fastest way to follow the global trend in the history teaching methodology.

Unlike other sources the Internet reflects the pluralism that characterizes the study of contemporary history especially the history of the 20th century because the history of that time, besides historians, was written by journalists, film authors, photographers, writers, historians amateurs etc. Therefore, there are a large number of materials that are placed on the Internet and are of suspicious origin and content with the goal of providing false information or propaganda in the name of a political aim or group (Страдлинг, 2001: 202–203). Also, one needs to look at the other side of the critical historiography available on the Internet, as Robert Stradling says: *the more subtle form of partiality lies in the fact that the search engines are mostly American, with views of 20th-century events: exclusively from the American angle*. Thus, in his opinion the teacher and student must be careful in the search and: *enter into websites offering an alternative also as a European perspective*. Such a way offers the teacher and student the opportunity to practice: *their critical historical analysis skills* (Страдлинг, 2001: 203). The same definition applies to other periods in historical science, the old age, the Middle Ages and the new age especially if it is a national history of the Middle Ages and a new age. It is particularly symptomatic in historical science in Bosnia and Herzegovina with the history of 20th century and subject to the application of a history revision or customization of content in order to propagate a particular national group or to look at the past from its own national angle with the frequent use of "make-ups" or creation of historical facts with a conclusion adapted to the national group to which the historian belongs.

University teaching in the Republic of Srpska and Bosnia and Herzegovina where modern information technologies are used: *assuming the student's active role in the information process, rapid exchange of information, control of information flows, asynchronous communication in delayed time, establishment of connection with remote individuals and databases - eliminated adverse impact of spatial distances and achieves maximum cost-effectiveness, the possibility of independent student learning (...) as well as learning at any place* (Илић, Ковачевић, 2013: 515). Research has shown that the introduction of information technology into university education among students has led to the gathering of facts more than to the process of knowledge creation but at the same time to a greater interaction with information which means that students try to find new knowledge instead of passive knowledge acquisition and it significantly improved the teaching process (Илић, Ковачевић, 2013: 518). However, it is evident that the traditional way of teaching will continue to be present in the university education in the Republic of Srpska and Bosnia and Herzegovina in the future because the teacher will never be able to replace a computer or vice versa (Илић, Ковачевић, 2013: 514; 520).

Today, the information literacy at schools, universities and education in general is one of the basic tasks of the society, because the society that does not invest in it does not follow the world trends and thus lags behind in its own educational, cultural and economic development. It is an unavoidable fact that contemporary education, from elementary through high school to university: *it is based on the principles of globalization and informatization, and as such requires general information and communication literacy* (Јовановић, Минић, 2013: 132). It is evident that Bosnia and Herzegovina is working on improving information literacy investing in equipping schools and universities with computer resources but it is also evident that this does not fully meet the needs of the science-teaching process. It is certain that the equipping of schools and universities with computer resources goes along with information literacy of teachers and students

in order to achieve much better results in education and science. Also, it is necessary to emphasize that public (state) universities in Bosnia and Herzegovina and therefore the faculties have transparent websites that have been constantly updated and improved: University of Banja Luka (<http://www.unibl.org/>), University of East Sarajevo (<https://www.ues.rs.ba/>), University of Sarajevo (<https://www.unsa.ba/>), University of Tuzla (<http://www.untz.ba/>), University of Zenica (<https://unze.ba/>), University of Bihać (<http://unbi.ba/>), "Dzemal Bijedić" University in Mostar (<https://www.unmo.ba/>) and the University of Mostar (<https://www.sum.ba/>).

CONCLUSION

Historical science in Bosnia and Herzegovina follows the global trend and historians in their research in addition to traditional research methods use and new ways of information literacy: digitized books, digitized journals and digitized archival material. Also, history teachers use new technologies in the method of teaching History from basic, through secondary to higher education. When it comes to libraries, historians in Bosnia and Herzegovina are helped by the most important system of scientific information from libraries - the COBISS system. As historians have the most important materials in the archives, historians in Bosnia and Herzegovina are increasingly seeking digitalized archives and search engines of funds in archives located on the archives web pages. Archive material in digital form can be obtained in all archives in Bosnia and Herzegovina. The methodology of teaching History follows the trends of the scientific study of History. As it became a resource in research in historical science the Internet has become an unavoidable resource in the teaching of History. In addition to downloading data from the Internet teachers use additional word processing programs as an additional teaching tool but also open their own websites that students use. It is evident that Bosnia and Herzegovina is working on improving information literacy investing in equipping schools and universities with computer resources but also that it does not fully meet the needs of the scientific-teaching process. What is encouraging is that researchers, teachers and students are constantly improving their knowledge in the field of information literacy.

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EXAMPLES FROM EDUCITIZENS PROJECT SMART CASES AND SUGGESTIONS OF TECHNOLOGICAL ASPECTS TO ADDRESS GENDER EQUALITY AND NON-DISCRIMINATION FOR DEVELOPMENT AND ENGAGEMENT OF WOMEN

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ABSTRACT:

EduCitizens project has provided an evaluation grid, S.M.A.R.T. framework and method hand-booklet for identifying, evaluating and disseminating smart practice in citizenship building. FAJDP/ FNAJ are among the EduCitizens project partner that specializes on issues of gender and non-discrimination. “Human Library for Equal Opportunities and Interculturality”, “Open roads for Equality”, “Capacita.te” are FNAJ/FAJDP’s three smart cases that incorporate these issues. In our study these, within the S.M.A.R.T. framework, these three cases are presented to underline non-formal educational initiatives on gender equity and non-discrimination, and for future work, suggestions will be provided on designing and delivering new initiatives with the support of technological tools.

Key words: *EduCitizens project, SMART practices, Gender Equality and Non-discrimination, Women engagement and development*

1. INTRODUCTION

In order to create and assess innovative services all over Europe and across all educational sectors, EduCitizens project has sought to create tested instructions and provide an evaluation grid for identifying smart practice in citizenship building. In order to collect these practices in a method hand-booklet as a tool-box for trainers, teacher and other facilitators, the project was organized in a series of multinational meetings including one in Ankara, hosted by the partnering AYBU team. At every meeting the partners presented smart practice examples of participative methods or projects in education. All methods were documented, collected and published at the end of the project. The grid, suggested S.M.A.R.T. framework and the method hand-booklet can be used by institutions from all education sectors in formal and non-formal learning. (EduCitizens Project, 2018)

There are many way to define non-formal education or to determine its difference from and relation with formal and informal education. At the same time, there is no comprehensive model with enough explanatory power to address these different perspectives. Also, SMART as a concept could be understood and utilized in different ways. With this in mind, our team has developed one tailored conceptualization of SMART, benefiting from the rich portfolio of practice cases provided by our project partners. The presented conceptualization covers the original four EduCitizens categories (citizenship, engagement, participation and education) and were used as case categories so that the initials could make it S.M.A.R.T.:

S: Stakeholder diversity, Social inclusion and intercultural dialogue (actor-oriented) that could cover citizenship

M: Mindfulness, awareness, discovery (pre-action-oriented)

A: Action, engagement and empowerment (action-oriented) that covers engagement and participation

R: Reflection, self-experience and learning (post-action-oriented) that could cover education
T: Technology-supported, digital, virtual (tool-oriented) (EduCitizens Smart Practises, 2018)
A visualization of the SMART framework could also be found below (Figure 1). Here the relationships among the different components can also be depicted. Accordingly, pre-action, action and post-action phases are distinguished with respect to the main orientation of the cases. It can also be seen that actor orientation and tool orientation could be related with either of pre-action, action and post-action phases.

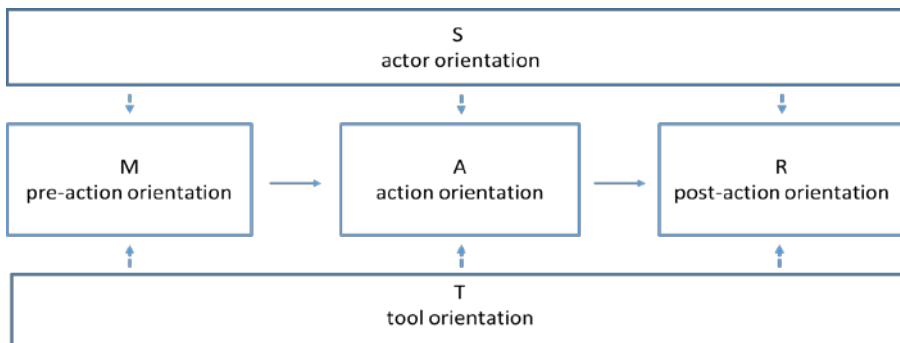


Figure 1 SMART Framework Components and their Relationships (Medeni, Soylu, Alaca, 2018)

The best of the cases collected from project partners were also incorporated into a booklet publication. Accordingly selected cases from partnering countries and organizations have been classified under one of these suggested categories by our team, prioritizing to which it fits the most. Then this categorized list was sent to all partners, and final changes were made, based upon their feedback.

Porto Federation of Youth Associations (FAJDP)/ FNAJ are among the EduCitizens project partner that specializes on issues of gender and non-discrimination. As part of the project, FAJDP's three cases that incorporate these issues have been particularly identified as SMART practices in the booklet (EduCitizens Handbook, 2019):

1. The “Human Library for Equal Opportunities and Interculturality” in 2008 to fight against racism and other forms of discrimination. Young women association/organization leaders and woman in politics were among the human books.
- 2.“Open roads for Equality” project in 2013 that contributed to addressing issues on gender equality, aiming to increase knowledge about Gender Equality in youth, strengthen Civil Society role as a structuring agent for Gender Equality values, disseminate information on gender violence prevention, including relationships violence and trafficking in human beings.
3. “Capacita.te” (“Enable Yourself” or “Capacitate”) - Local Training Plan project since 2015 that incorporated non-formal education/training activities on gender equality and non-discrimination. While the first two cases were considered to be an example of “S: Stakeholder diversity, Social inclusion and intercultural dialogue”, the third one was identified as an example of “A: Action, engagement and empowerment”. Next, these three SMART cases will be presented to underline the actor and action orientation for non-formal educational initiatives on gender equity and non-discrimination.

EduCitizens FNAJ/FAJDP’s three smart (SmArt) cases on gender and non-discrimination (Adapted from EduCitizens Handbook (2019, pp 52-63 and 161-164))

Human Library for Equal Opportunities and Interculturality

As a FAJDP itinerant campaign, the project was started in 2008 with the European Commission co-financing support, as an answer to one of FAJDP major issues. In 2008, FAJDP strength to work with youth organization and youth in general in matters such as equal opportunities for all, interculturality, human rights raise, European awareness and fight against racism and other forms of discrimination. The objectives of the project are the following: Raise awareness of the cultural diversity; Fostering Interculturality; Stereotypes deconstruction; Development of skills to manage Interculturality; Encouraging European citizenship; Raising awareness on political and social issues.

To do so, FAJDP used “Human Books” and an Info-Bus to work with youngster between 12 and 18 years old in schools and public places. The “Human Books” were persons who symbolize some kind of stereotype and the goal was to put the youngster reading these books – making them questions that they always want to ask but never had the opportunity to do it. “Don't judge the book by his cover” was the motto.

The Info-Bus was the physical space/area where this Human Library was accommodated and also a space full of information and materials about European Union (EU) and European citizenship. This itinerary campaign was presented in Porto district public schools and public places between May and July 2008, being visited by more than 26.000 youngsters. Direct readers for the Books were more than 4.200 and the Human Library was open 32 times. This was possible thanks to a very good feedback from schools and municipalities. Another valuable contribution came from the partnerships that were established with other organizations.

The students visited the Library with their teachers and during class breaks, where they can “read a book” and/or participated in other activities regarding Equal Opportunities for All, Interculturality and European Union aspects, like quizzes or non formal education activities. In small groups, they can make any type of questions to the Book they have chosen by the Cover. This give them the direct power of what type of Book they wanted to read and which question were relevant to them. The main goal was to work their empathy by curiosity in a protect environment, where they can ask anything, building a trust communication channel during the activity. In the end, it was about the feeling that a Book is much more than the cover.

During the activity, some students were reading the Books in small groups and others participated in non-formal activities related to Equal Opportunities and Interculturality (like quizzes or table games). Each class lasted around 2 hours in this activity, where each student could read 2 or 3 books and participated in other activities related to non-discrimination. A debriefing was always made by FAJDP team in the end of the activity and some tools were shared with teachers, so they could work these topics in classroom in the future. This debriefing put together all the small groups who were reading Books, sharing their feelings about what they had experience.

As a successful example: the Book who had more readers was the Gay Book, normally a homosexual boy and girl who were read by the participants. All the groups acted more or less the same: a lot of laughs in the beginning and a serious but relaxed way of communication in the end. As a result students get the idea of being something or somehow don't define all of you as a human being. And it is OK whatever you like boys or girls, if you were from other religion or a woman with a decision maker status. One girl once said in the end of this activity: “the most important thing I have learn today is that I can be and love whatever I want to!”

This Smart practice was special, being able to put people together, talking and reflecting about important social issues. And probably these people are those who would never had a chance to be together otherwise. Consequently, this project had an enormous impact, both for young people involved, for FAJDP and its partners as well as the surrounding community. In terms of results achieved the spread in terms of public debate could be referred: the project did put people talking about those certain things that spread intolerant behaviors against minority groups. And by that, the “Human Library” biggest aim, which is “Don't Judge the Book by the Cover”, was achieved. It was also innovative because with a cover of a Library, persons could take place of Books and curiosity of the readers did the rest!

Open roads for Equality

FNAJ promoted this project in 2013 in the Northern Portugal, as a co-financed project by CIG – Portuguese Commission for Citizenship and Gender Equality – aimed to contribute in this field, based on the implementation of concrete activities for Youth. The project articulated theoretical concepts about: Equality, difference, gender discrimination, gender identity and sexual orientation; Ethnic /racial background, age, disability, religion and / or belief, social background and territory; Diversity and citizenship; roles and gender stereotypes, violence against women and against girls, violence in relationships and trafficking of human beings; Awareness and promotion of new social practices among youth, in a culture of nonviolence and respect for human rights.

Accordingly, the project aims were: Promotion of Gender Equality, Citizenship and NonDiscrimination in youth; Increase knowledge about Gender Equality in youth; Strengthening Civil Society role as a structuring agent for Gender Equality; Gender Equality values dissemination through education and information; Gender violence prevention, including relationships violence and trafficking in human beings. To do that, FNAJ used an Info-Bus during 2 months to work with youngster between 12 and 18 years old in schools and public places. Open Roads for Equality made 11 visits in north Portugal and received more than 2.000 young visitors. Between 4 and 6 FNAJ staff were involved in the project, participating in the Info-Bus activities. This project directly involved young students by going to meet them in schools. The visits were pre-programmed with schools, and non-formal educational methods were used to promote learning processes about Equality issues. Open Roads for Equality was a project where young people can experience different aspects related with diversity, making part in these activities: a) Visiting an itinerant and interactive exhibition inside an Info-Bus; b) Participate in Activities and games inside and around the Info-Bus; c) Workshops and Seminars for Youth and Civil Society in general.

The Infobus was decorated with an exhibition of 6 panels, 1 TV with videos and 3 interactive gaming tables about: Concepts: Stereotypes, Preconceptions, Discrimination, Intolerance, Diversity and Equality; Gender; Sexual Orientation; Ethnic and Racial Background; Disability; Citizenship, Youth and Active Aging. The activities were all based on non-formal education, 1-hour structured time for each group to: Critical discussion about equality and non-discrimination after visiting the 6 panels and experience the 3 interactive gaming tables; Videos watching and collective commentary on them; Group dynamics about exclusion and inclusion of discriminated persons and reflection about it; Dissemination of materials about Equal Opportunities for All, giving teachers the opportunity to explore this issues in classrooms (debriefing).

An example success story of this project could be given that the students were get to debate among themselves, that is to say, instead of being only the facilitating team to deconstruct the prejudices and stereotypes exhibited by some students, the students who disagreed were encouraged to participate in the deconstruction. This meant that not only was the process discussed in pairs, but also that discussion continued outside the Infobus and was sometimes carried into the classroom. In addition, all the dynamics were designed and adapted to the needs of the students allowing, in a flexible way, awareness and learning.

Accordingly, what makes it a smart method could be considered that it is a non-formal learning that promotes the development of capacities, characteristics and values of young people, where they themselves are the actors of the construction and passing of knowledge, assuming a preponderant role in their own education. In this way the debate beyond the moment of awareness can be promoted.

Capacita.te

Since 2015, the project has been developed by FAJDP in partnership with the Youth Department from Porto City Hall. Capacita.te means something like “Enable Yourself” or “Capacitate”,

giving the idea of “To Train” and is the answer for the Local Training Plan developed by Porto City Hall Youth Office and executed by FAJDP.

Portuguese young people feel - too often - that political decision-making structures are working away from them. This feeling includes local power structures as City Halls as well. Through training sessions, and with close involvement of local power agents, FAJDP promotes a set of actions in different fields, giving participants important tools for the future and the opportunity to contact with Porto City Hall politicians and Youth Workers in an informal environment.

Since 2015, together with the Porto City Hall, a Training Plan for Youth, Youth Workers and Associative Leaders has been planned. This plan is developed for the whole year and a set of session and training are scheduled. All actions are based on non-formal education and put together people with different backgrounds – graduates or not, employed or not, students or not, Association leaders or not, among others.

All Sessions were based on non-formal education – practical games and roleplaying, group dynamics and participatory exercises. The sessions brought together people with different characteristics and backgrounds (with and without associative membership, with and without higher education, with and without knowledge about Youth Policies, Youth Workers or not, etc.). In 2017, the Capacita.te plan was about: 11 March: Leadership and volunteer management; 29 March: Communication in Youth Association; 03 April: Project management with young people 08 April: Accounting for Youth Association’s 19-21 May: Capacita.te Boot Camp 04 October: Gender Equality / No Discrimination; 21 October: Basic life support; 11 November: Europe and world mobility. Last year, in the middle of the Plan, Capacita.te Bootcamp activity was held. During one weekend, in Baião (Porto district, but more like a rural area rather than a city), a group of young people (with and without knowledge about Youth Associations or Youth Policies) and a team of FAJDP and Porto City Hall facilitators, were together to work about Participation, Citizenship and what role Youth Associations can have to promote it. As a success story, after Bootcamp, one of these young participants was invited by a Youth Association – who had met him in these activity – to become a Community Facilitator in a specific project for youth, promoting peer education.

While having a Training Plan for youth is not new, having it with a partnership with a City Hall and building it with the youth policy perspective and needs can be considered innovative. This Training Plan is a smart method, as it engaged youth with formal city hall politicians and support people. It also involves non-formal education approaches with formal themes as Youth Policies. And, in the end, involves Youth with different backgrounds who can share different knowledges

2. SUGGESTIONS FOR sMaRT, TECHNOLOGY SUPPORT FOR MINDFULNESS, REFLECTION AND EDUCATION

For future work, suggestions can be provided on designing and delivering new initiatives that also incorporate orientations towards pre-action, post-action and technology. Particularly, use of innovative technologies such as virtual reality (VR) and augmented reality (AR), among others that are being developed in order to tackle gender inequality issues will be our focus for future directions. For instance, the Whole Story app uses location-based AR to show augmented female statues alongside existing male figures. Furthermore, use of (avatars or) virtual reality tools to see from and understand the perspective of other gender side. (<https://www.wikitude.com/blog-how-augmented-reality-is-changing-the-game-for-gender-equality/>, <https://arpost.co/2018/09/07/how-virtual-reality-promotes-gender-equality/>, <https://arpost.co/2018/06/05/how-vr-can-combat-implicit-racism-through-perceptive-taking/>, <https://medium.com/@tanjaaitamurto/the-power-of-virtual-reality-in-advancing-gender-equality-6bf847df4db4>) (Figure 2)

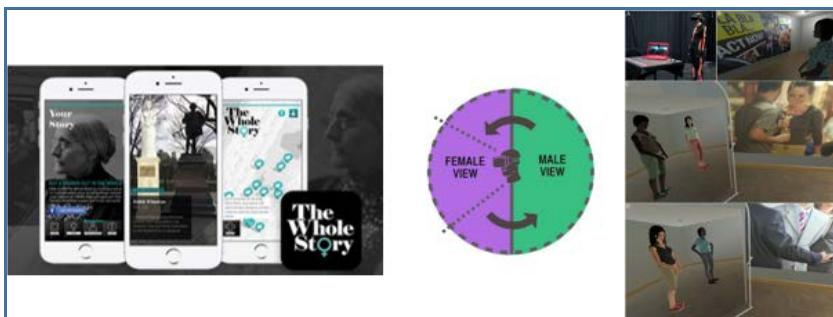


Figure 2 Examples of technologies to enhance mindfulness, reflection and learning

Meanwhile, technology education helps bridge the gender gap and should be encouraged (Singularity Hub, 2018). Games for learning should also be designed to encourage more the involvement of girls. Other examples for the general picture including interaction with important actors, engagement and action can also be seen in the below illustration (Figure 3).

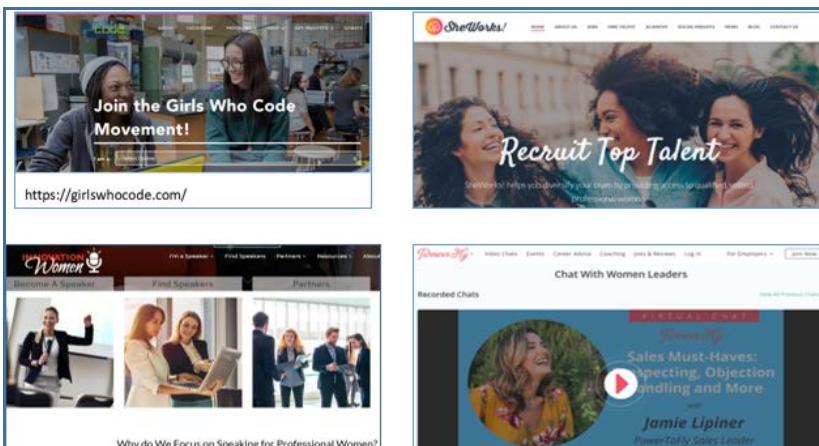


Figure 3 Examples of internet-based tools for women's interaction with important actors for their development, engagement and action

To sum up, all these exemplified technological tools (among others) could be used to develop new initiatives to facilitate realization of M: Mindfulness, awareness, discovery (pre-action-oriented), R: Reflection, self-experience and learning (post-action-oriented), and T: Technology-supported, digital, virtual (tool-oriented) sMaRT cases, which have been so far covered less than the other EduCitizens SmArt initiatives introduced above.

FUTURE WORK AND CONCLUSION:

This paper has provided selected examples from EduCitizens project, “Human Library for Equal Opportunities and Interculturality”, “Open roads for Equality”, and “Capacita.te”, that underline issues of gender and non-discrimination, approached within the S.M.A.R.T. framework. These examples could be especially valuable as good practices for respective participants’ developing information literacy, critical thinking for realizing true knowledge in a free and emancipating way. They learn not to judge someone by its appearance, dwell into deeper meaning to

deconstruct knowledge and identify truth, engage with different stakeholders to take action for change and difference-making. For future work, suggestions are also provided on designing and delivering new initiatives with the support of technological tools. These tools could be particularly useful for access to unbiased information and equal opportunities, and become aware of and appreciate the perspective of others.

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KNOWLEDGE MANAGEMENT IN A CHALLENGING MIDDLE EAST PUBLISHING SETTING – THE ROLE OF MUSLIM CIVILIZATIONS ABSTRACTS (MCA) PROJECT

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ABSTRACT

This paper aims to shed light on a promising bibliographic project led by the Institute for the Study of Muslim Civilisations in London. The project aims at facilitating access to a wide range of literature in different languages related to various disciplines in Islamic and Middle Eastern studies. Although the project aims to tackle challenges relating to knowledge management in the Muslim world, the project itself faces many challenges including but not restricted to the setting of the publishing processes in the Middle East, readership statistics and the relationship between authors and publishers. The paper also will demonstrate the importance of bibliographical projects in the knowledge management cycle and its historical significance in Islamic studies.

1. INTRODUCTION

It is of fundamental importance to mention how Muslim scholars possessed the epistemological concept of the organisation and classification of knowledge in the first few centuries of Muslim history. Although it is not easy to mention every single example in this regard, a cursory glance at the 10th Century survey of Islamic Culture by Muhammad ibn Ishaq ibn Al-Nadim (d. 995 AD) enables us to say that Muslims realised the importance of knowledge organisation before bibliographical science was established.

Ibn al-Nadim's work, known as *Kitab al-Fihrist*, literally means 'the Catalogue' is an index of all the books written in Arabic either by Arabs or non-Arabs and was divided into ten discourses. The first six of them deal with books on Islamic subjects such as 1)the Scriptures of Muslims, Jews and Christians, with an emphasis on the Quran and Quranic sciences; 2)grammar and philology; 3) history, biography, genealogy and related subjects; 4) poetry; 5) scholastic theology (kalam); 6) law and tradition. The last four discourses deal with non-Islamic subjects including 7) philosophy and the ancient sciences; 8) legends, fables, magic, conjuring Inc; 9) the doctrines of the non-monotheistic creeds; 10) alchemy.¹ The author, who happened to be a bookseller, often mentions the size of a book and the number of pages, so that copyists creating shorter versions would not cheat buyers. He often refers to copies written by famous calligraphers, bibliographies and other libraries and speaks of an auction and the trade in books. In the opening section, he deals with the alphabets (Arabs and non-Arabs) and their style of writing and also with the writing-pen, paper and its different varieties. In his study on the structure of *al-Fihrist*, Devin Stewart mentions, "Countless specialized studies have used *al-Fihrist* as a source of data; because it includes the titles of works that are no longer extant, as well as biographical information on little known early authors, it throws light on otherwise obscure facets of medieval history in many fields".²

Al-Fihrist is a prime example of how Muslims organised and produced knowledge. However, one could argue that there is a gap in this field because of many reasons. In the following section, therefore, I will shed light on the major challenges in knowledge management as a result of the setting of publishing in the Arab world. In doing so, there is a need to understand the knowledge

¹ "Al-fihrist: A 10th Century Ad Survey Of Islamic Culture ..." Insert Name of Site in Italics. N.p., n.d. Web. 31 May. 2019 <https://www.kazi.org/product/al-fihrist-a-10th-century-ad-survey-of-islamic-cult>.

² Devin Stewart, the Structure of the Fihrist: Ibn al-Nadim as Historian of Islamic Legal and Theological Schools, *International Journal of Middle East Studies*, Vol. 39, No. 3 (Aug., 2007), pp. 369-387

management lifecycle vis-a-vis the increasing demand for projects that involve knowledge organisation, such as indexing and abstracting services,

Although there is no hard and fast rule for the stages of knowledge management, the key steps can be summarised in a) the Creation stage: often nothing more than an idea; b) the mobilization stage: the idea becomes more concrete; c) the Dissemination stage: the knowledge in question starts to become relatively widely understood in the relevant field; and d) the commoditization stage: knowledge turns into common-knowledge, or in economic language, a public good.

That was a basic introduction to position publishing in the landscape of knowledge management in the Arab world. In the next few minutes, I aim to focus on three main aspects: first, share with you some general observations about the current book trade in the Middle East. Secondly, the role that libraries play in the knowledge management cycle; and finally bibliographies as a tool in the process of knowledge organisation and creation.

2. PUBLISHING IN THE ARAB COUNTRIES

As it is the case in the author-publisher relationship, the bibliographers and publishers are not always in a good term. When I started the preparation for this paper, it wasn't easy to obtain the necessary statistics to establish the groundwork and methodology. What I received from publishers, national libraries and librarians were all varied in a way or another. However, the most exciting response received after many phone calls, emails and even Facebook posts was wishing me good luck indicating that this is not an easy undertaking.

That said, there are some reports available online about book trade in the Arab world. For example, in the annual report of the Arab Publishing Association, it was noted that in 2011 with the beginning of the political unrest in the Middle East an important market in Syria was closed and there was a 50% drop in the number of publications compared with 2010. We could say the same thing about the home countries of the Arab Spring (Egypt, Tunisia and Libya).

On 30 June 2013, the English page of Asharq al-Awsat newspaper published its "debate series" to feature the publishing industry in the Arab world. Rana Idriss, director of Dar al-Adab, a leading Lebanese publisher of Arabic quality fiction, considered that the Arab world is facing a publishing crisis, mainly due to the high levels of piracy (on printed and e-books) but first and foremost, to the closure of the market in different countries such as Syria.³ Also, there are restrictions on the publishing industry in Libya, Sudan, Iraq. Moreover, the noticeable increase of the publishing and readership rates in the Gulf is a point of enhancement, but with a high level of censorship which form a significant challenge.

It seems that every year during the international book fairs that take place in Egypt, Algeria and Sharjah, the publishing topic repeatedly returns to the centre of discussion. In addition to the general points mentioned in the al-Sharq al-Awsat report, detailed information about these challenges is published in many other reports. The following section summarises some of these challenges that are connected to the knowledge management discussion.

2.1. Authors-publisher poor relationship

It has been mentioned that there has been a crisis in relations between authors and publishers in the Arab world for the last two decades. For instance, a group of Egyptian authors expressed their concern about the decreasing number of publishing houses funded by the government. According to al-Sharq al-Awsat, the number of publishing houses financed by the Egyptian government dropped from 27 to none in a few years after 2011. The report added that the private sector has little interest in enriching the intellectual and cultural life of Egypt, and their primary interest is the commercial business. One of the authors anonymously commented, "if it is true that

³ The Arab Book Market - Vrijgeestesleven.be. (n.d.). Retrieved from http://www.vrijgeestesleven.be/vanaf70/b91/buchmarkt_arabische_welt.pdf

publishers are not able to make profits from the book trade, how have they been able to remain to function, and more surprisingly, how do they manage to attend international book fairs?"

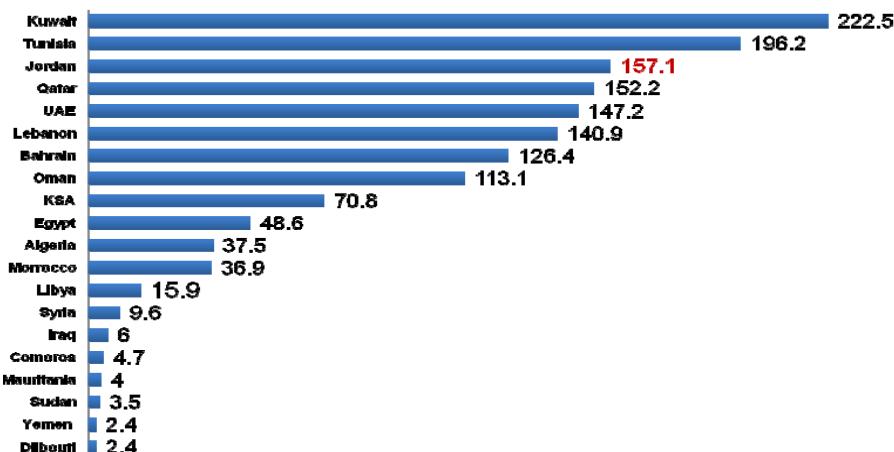
In response to this poor relationship and to avoid any potential rejection of his works by publishers, one of the authors decided to establish an online publishing platform where authors can upload their works online. Although there are many similar examples of such platforms, I would like to share with you the name of the online publishing that was established by Jamal al-Jaziry known as Dar Humartak al-Arja⁴. The reason he gave this memorable name to his project is to illustrate the relationship between Publishers and authors.⁵

To conclude, Sheikha Latifa Bint Mohammad Bin Rashid Al Maktoum, the Vice-Chairman of the Dubai Culture & Arts Authority commented in this problem by inviting more rigorous, productive and collaborative relationship between writers, editors and publishers which will drive an innovative and forward-looking approach to create books."

2.2. Lack of reliable figures for book production and sales

The second barrier I would like to mention here is the lack of reliable figures for book production and trade in the Arab world. As you know, building reliable statistics is not a straight forward exercise in the Middle East, but it is not impossible. Sometimes it is easier to obtain figures about production than collecting numbers for sales. In anyways, there is no centralised Arab system which monitors book sales in the Middle East, something like the Nielsen BookScan for the English speaking world. The figures that circulated are always incomplete, taken from various sources, and impossible to check. Their liability depends most of the time on the authority of the speaker. I will share with you more examples in the next few minutes.

Number of Publications per million inhabitants



Source: Thomson Reuters (Scientific) Inc. Web of Science. Science Citation Index Expanded, compiled for UNESCO by the Observatoires des Sciences et des techniques for population data; World Bank (2010) World Development Indicators.

⁴ This is an Egyptian popular proverb that can be translated as "Better make do with what you have". The mean here refer to the publishers and their attitude towards the authors rights or benefits.

⁵ Farzat, Adnan. *Udaba' a'lanu tamarrudahum*. Al-Sharq al-Awsat (Monday 07/12/2015).

Barriers to the development of publishing structures

The third barrier is the absence of a publishing structure and the weak role of the institutions that organize the Publishing industry. To this end, it is worth saying a few words about ITTIHAD AL-NASHIRIN AL-ARAB (the Arab Publishers Association), which is the main body that works to upgrade the profession of publishing and to set a charter of honour to be adhered to by Arab Publishers, including all the rules and regulations. It was established during the *General Conference for Arab Publishers* that was held in Beirut in April 1995. The Arab Publishers Association consists of Arab Local Associations, represented by a Member for each one in the Board Members. On its official website, the association mentions that it aims to achieve the following objectives:

- To expand areas of cooperation and joint action, and consolidate relations between the Arab publishers and their associations for the good of Arab culture and the publishing industry.
- To facilitate the opportunities and possibilities that lead to the promotion of book culture and the development of cultural awareness in the region and abroad. To organise and manage all necessary conferences, seminars and training courses.
- To consolidate links between regional, international organisations and associations which are related to the field of the book publishing industry and issues about intellectual property.
- To uphold and enrich the core values of Arab culture and civilisation, in addition to protecting this culture against all attempts to distort or undermine it.
- To protect the literary rights of publishers, their interests and to uphold the right of freedom of publication; taking all the moral and legal procedures to do so, and respond vigorously to combat the attack on property rights and intellectual property rights.
- To work to increase awareness in the collective conscience of the Arab societies of the importance of respect for property rights and the criminalisation of domestic violence.

In line with the above principles, the Association is supposed to protect authors' and publishers' rights; however, censorship remains one of the significant obstacles in the Arab book trade. Censorship is known to be strictest in certain countries such as Saudi Arabia, and less severe in Lebanon. The other Arab countries range between those two extremes. A study published by RAND cooperation in 2009 about the Barriers to the Broad Dissemination of Creative Works in the Arab World, reports that 90% of the 350 Dar al-Saqi titles were forbidden access to the 2008 Riyadh international book fair, and 230 new books out of 560 were banned from the 2007 Kuwait book exhibition.⁶

The overthrow of dictatorships in several Arab countries has raised hopes of overcoming censorship. For example, enthusiastic accounts came from Tunisia and Egypt after the Revolutions, in 2011, celebrating the return of books that had been banned under the previous regimes. But one year later, debates and protests started again when the post-revolution governments started to impose their limitations on the freedom of expression. The decrease of political censorship threatened to be counterbalanced by an increase of religious censorship, and in the current, unstable situation, the struggle for freedom of expression in all its forms is still ongoing.⁷

⁶ The Arab Book Market - Vrijgeestesleven.be. (2013). Retrieved from http://www.vrijgeestesleven.be/vanaf70/b91/buchmarkt_arabische_welt.pdf

⁷ Ibid.

3. LIBRARIES AND READERSHIP IN THE ARAB WORLD

There is a direct relationship between the proper functioning of libraries and the enhancement of the publishing and book trade. If the Arab world is facing a publishing crisis, due to limited markets and low readership, libraries could contribute to the resolution of this crisis. A recent report issued by the Association of Research Libraries (ARL) concluded that “publishing services are rapidly becoming a norm for research libraries”. This shows how difficult it is to have a knowledge society without libraries; it is not only a place for reading but has become a cultural hub where new research can be developed, debates take place, and knowledge can be disseminated.

For libraries, to live up to the challenge of efficiently capturing the material to feed the emerging methodological trends in scholarship and teaching, they have to understand the working of the regional book publishing and distribution sector.⁸

It happened that after September 11, 2001, had a direct impact on the Middle Eastern collections in the United States. Arabic book holdings in the U.S libraries have doubled between 1992-2007 to reflect the sustained scholarly and policy interest in the region. This, of course, had an indirect impact on the publishing market and the work of vendors in the Middle East. According to the latest statistics that was produced in July 2017, the number of Arabic records on the WorldCat reached 2 million records. Arabic language, however not from the top 10 languages on this massive database.⁹

The other important role of libraries is to improve the readership in their respective communities — an impact that hard to measure though. We hear assertions such as “Arabs read six minutes a year on average”, a widely quoted figure not backed by any statistical evidence.

On the other hand, some reports mention that there is no shortage of readers in the Arab world. Instead, that there is, in fact, an abundance of Arabs keen to read, both in the region itself as well as in the growing diaspora abroad and that they are consuming content across a multitude of topics and platforms, with a discerning eye towards high quality, customised Arabic content.¹⁰

These two extreme positions can be questioned, but quite apart from propaganda and defensive positions, most Arab publishers agree that the reading rates are low in the Arab world. This can be partly explained by the literacy levels. It is noted that the average adult literacy rate was 72.9%, according to UNDP’s Arab Development Challenges Report in 2011.¹¹

The report on readership averages in the Arab world that was prepared by Mohamed bin Rashid AL Maktoum Foundation and the United Nations Development Program (UNDP) summarised this phenomenon in a few points¹²:

- The report admitted that there is a problem in the readership average.
- There are discrepancies in the figures mentioned in the different reports that have been published in the last ten years.
- There is no mechanism to be used to measure this problem and collect statistics.
- The new forms of readership (audiobooks and online) have been ignored in most of the previous reports.
- There is an increasing number of initiatives to encourage free reading and better utilisation of libraries.

⁸ Gali, Christopher. p.2

⁹ Ibid, p.3.

¹⁰ Arabic Publishing Industry Needs A Holistic Ecosystem.” Insert Name of Site in Italics. Web. 31 May. 2019 <https://gulfnews.com/opinion/op-eds/arabic-publishing-industry-needs-a-holistic>

¹¹ The Arab Book Market - Vrijgeestesleven.be.” Insert Name of Site in Italics. Web. 31 May. 2019 http://www.vrijgeestesleven.be/vanaf70/b91/buchmarkt_arabische_welt.pdf

¹² Mohammed Bin Rashid Al Maktoum Foundation Launches Arab ...” Insert Name of Site in Italics. N.p., n.d. Web. 31 May. 2019 <https://www.biz4pr.com/mohammed-bin-rashid-al-maktoum-foundation-launches-arab-k>

In addition to the statistics mentioned in this report, the study managed to establish a standardised indicator to measure the readership average in the Arab world. This indicator or framework comprises three main components: level of reading (textbooks, free reading; individuals profile and their attitude towards reading; and access to reading. However, even thoughin many rich countries in the Arab region are building new libraries, most of these libraries are not hospitable spaces for readers. On the other hand, there are other countries which suffer from a lack of public and school libraries. This unbalanced distribution has a direct effect on readership statistics. Either way, there is a need for the existing libraries to reassess their role in supporting the evolving needs and behaviours of their users.¹³

In doing so, libraries should be able to identify opportunities to shape the scholarly communication environment actively and to undertake a range of new initiatives such as: creating institutional repositories that support thearchiving and distribution of the scholarly and teaching materials, developing digital publishing services, engaging in education, and providing a customised bibliographical and indexing services to researchers.

Among the roles above, the last two points are relevant to the bibliographical initiatives. The first point is the online publishing and Open Access. Currently, there are approximately 2900 OA digital repositories internationally listed on the Directory of Open Access Repositories, Open-DOAR, which is an authoritative quality-assured world directory of academic Open Access repositories -- with about 37 repositories in Arab states and 525 Open Access Journals published in Arab countries listed in the Directory of OA Journals (DOAJ), of which 28 are available in Arabic language. This show the low number of Arabic resources that are available in OA.

This number accounts for a comprehensive directory that covers all open access scientific and scholarly journals that use a quality control system to guarantee the content. DOAJ also currently indexes 3977 OA articles which are published in Arabic. This accounts for 0.02% of a total of ~1,976,226 articles available on DOAJ. 53 OA journals published in the Arabic language are listed in the Directory of Open Access Scholarly Resources (ROAD).¹⁴

Furthermore, in Arab states, research is done mainly through Higher education institutes and their affiliated research centres with minimal involvement of the private sector. The total Scopus output from the Arab World during the period 2003-2013 is topped by Egypt, with approximately 85,000 publishers. This number can be associated mainly with the *Hindawi* publishing corporation based in Cairo, Egypt.¹⁵

UNESCO's Global Open Access Portal for the Arab States currently provides detailed OA profiles for Algeria, Bahrain, Egypt, Jordan, Kuwait, Libya, Iraq, Lebanon, Malta, Morocco, Oman, Qatar, Saudi Arabia, Palestine, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, and Yemen.

There are many examples of agencies and programs that are active in the region for Open Access initiatives such as EIFL.net- an international not-for-profit organisation based in Europe with a global network of partners (Helping in setting up IR and training support). INASP (AJOL), BioMed Central (free membership scheme for qualifying universities and research institutions in low-income countries), SCOAP3 - Sponsoring Consortium for Open Access Publishing in Particle Physics (partnership) and in many cases with UNESCO sponsorship.The availability of scientists and researchers is higher than in developing countries but less than in OECD countries: there are about 35,000 fulltime researchers, and half of this number works in Egypt. International collaboration is high due to funding availability, and governments have procured advanced technologies.

¹³ <https://www.al-fanarmedia.org/2017/02/access-books-key-better-society/>

¹⁴ Overview Of Oa In Arab StatesUnited Nations Educational. Retrieved from <http://www.unesco.org/new/en/communication-and-information/portals-and-platforms>

¹⁵ Ibid.

On the other hand, there are several Arabic websites offer a free download of books that are still in print and not free of rights. Here are some figures from the only one which is relatively “transparent” and presents indications about the volume of frequentation and downloads. It covers only a small part of the market but gives an idea about the frequency of downloads per genre of books (August 2013).¹⁶

Studies have shown that throughout the Arab world, religious books constitute 17% of all books published in Arab countries compared to 5% of worldwide. The second higher sellers are novel, with original titles better than translations.¹⁷

The following table shows some statistics about downloading Arabic resources, which is in the OA by subjects. It worth mentioning that Open Access, as part of the publishing process in the Arab world, is not challenges free either.

Genres	Books available	Total downloads	Average downloads
Qur'an and Hadîth	227	1,489,822	6563
Books for iPhone and IPad	30	65,718	2190
Islamic ideology and fiqh	650	3,542,162	5449
Politics and essays	366	2,071,703	5660
Memoirs	98	676,633	6904
Children's books	67	399,700	5966
Novels and short stories	294	1,436,221	4885
Literature and Arabic language	325	1,834,379	5644
Computer	177	1,341,571	7579
History and Geography	104	658,212	6329
Law	129	906,187	7025
Medicine (vulg.) and Psychology	161	1,284,203	7976
Genealogy (of Arab tribes)	20	197,703	9885
Women, make-up, cooking	82	834,727	10180
Business, Economy and Human development	136	856,683	6299
Science	84	797,000	9488
Foreign language (mainly books about Islam)	59	255,256	4326

It is worth to mention that the reasons for the low usage of the downloadable books range from the low level of awareness and lack of government framework and policy regulations. However, other reasons can be added to the list such as:

- Lack of skilled individuals to manage Open Access projects and to maintain the standards of quality assurance and good scientific practice.
- There is a lack of open access journals being published in Arabic.
- Most Arab publishers do not have their earlier publications archived as InDesign or Word files, which means that a tremendous effort and expense is required to collect, retype, and proofread the texts all over again. And to top it all off, tablet users make up only 10% of the population of the Arab world.

Consequently, we cannot assert that paper books will disappear, at least not those addressing frequent readers. Although affected by the rise of digital books, paper books will remain.¹⁸

¹⁶ Figures from one website of freedownload of books: <http://www.aljlees.com/>

¹⁷Gali, Christopher.

However, it is clear that in public institutions, universities and schools, the future is in favour of digital books. This assumption has been confirmed by one of the significant book vendors in the Middle East who has been in this business for more than 60 years.

4. BIBLIOGRAPHIES AND KNOWLEDGE MANAGEMENT

It was mentioned in the first section of this paper the famous bibliographical work in Muslim culture known as al-Fihrist, which is one of the oldest and most important bibliographical initiatives in Muslim civilisations. This work assessed in producing a lot of knowledge after the 10th century onward. Although there are similar projects that cover the literature about Islam and Muslims that is written in European languages, it is crucial to establish a similar initiative to introduce the literature written in languages in Muslim majorities countries. One major reason is the challenges in publishing and readership in the Muslim world.

Bibliographies, as defined by Carter and Barker (2010), is a twofold scholarly discipline—the organised listing of books (enumerative bibliography) and the systematic description of books as physical objects (descriptive bibliography). National bibliographies in the Middle East still are the predominant type of bibliography. The reason for this is that these projects are managed by the national libraries, which is funded by the government. Secondly, most of the Arab countries have legal deposit regulation as part of the publishing process. For any author to obtain the national library ISBN, he has to deposit at least ten copies of his book. Morocco and Tunisia have published their national bibliographies consistently and have made them accessible, albeit in different forms and to a different extent, on the web portals of their national libraries. Other projects, including *Dalil al-Matbuat al-Masriyah* by Aida Ibrahim Nosseir, have been completed as part of the individual's studies or as a separate project.

Another project that was completed in the Arab world by Brill is the Bibliography of Arabic Books Online (BABO) which aims to become a comprehensive bibliographic database containing information about virtually all books published in Arabic before 1960.

Muslim Civilisations Abstract (MCA) however aims to create an influential dialogue between academics and academia in various Muslim contexts and their equivalents around the world. More recently, the MCA strives to document endangered produced knowledge and intellectual efforts on Muslim cultures and societies in unstable countries along with supporting struggling scholars and academics in these contexts. The main medium for such endeavours is to collect short book-reviews of books published in Muslim contexts and disseminate them, in books and online, in various languages. These book reviews and their translations are commissioned to academics and scholars based mainly in Muslim contexts, who get remunerated for their services. This model helps support the contributors financially and intellectually by publishing their reviews and translations under their names.

The MCA project is a platform that could help to overcome some of the challenges related to publishing and open access to Arabic literature. The project is timely and much needed, as there are increasing numbers of initiatives aiming to create abstracts and indexes of scholarly literature available worldwide. In addition to the well-known Index Islamicus, which is restricted to European languages, there is also Oxford Bibliographies (5-year-old) which provides faculty and students alike with a seamless pathway to the most accurate and reliable resources for a variety of academic topics.¹⁸ What MCA can offer, in my view, is a means of facilitating access to a wide range of literature in different languages and related to various disciplines in the Middle East. This provision would encourage inquiry and the exchange of ideas, which could impact the small

¹⁸ The Arab World Slow To Adopt Digital Publishing." Insert Name of Site in Italics. N.p., n.d. Web. 31 May. 2019 <https://publishingperspectives.com/2015/05/the-arab-world-slow-to-adopt-digital>

¹⁹ About - Obo.Retrieved from <https://www.oxfordbibliographies.com/page/40>

but influential constituency of scholars of Islamic civilisations quickly, within and outside the Muslim world.

5. CONCLUSION

This paper attempt to provide an overview of the challenges about the knowledge organisation in Muslim countries. There are many reasons for these difficulties, such as the publishing setting and the lack of projects that aim to organise knowledge. There is a need for more studies to examine the landscape of Arab publishing, and its impact on the way libraries and research.

Bibliographies remain a vital tool in the field of knowledge organisation. Many projects look at organising the literature in western languages to make information about research available for a broader range of scholars, libraries and agencies. That said, there is a need to establish more work in Muslim countries where significant literature is being published but does not connect to the global academia. To this end, the Muslim Civilisations Abstract Project is a promising bibliographical resource if it takes into account the inclusion of new media formats and full-text resources in national bibliographies. Also, making the project available through an open access platform will make it a more prominent tool in the knowledge management cycle connecting the authors, publishers and other stakeholders.

Utilising the technology to create a bibliographical platform can be one step towards connecting the academia in the Middle East with the rest of the world. This will create more integration and will enhance the knowledge management cycle.

FOUNDATION ARCHIVE AND ENDOWMENTS

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ABSTRACT:

Archives are documents that preserve documents. They also make these documents, which are the memory of the nation, available for use. They also serve as a bridge between researchers and archival materials. Apart from document protection, archives play a role in the change and development process of their institutions, while they process the documents during the activities of the institutions to which they belong and shape them through their institutions within the framework of order and system. One of these institutions is a foundation institution.

General Directorate of Foundations Archive (VGMA) under the auspices of the General Directorate of Foundations (VGM); as written in the logo of the VGM, is perhaps the oldest social science archive in our country, which has the document of the foundation of the Turks, which has been classified in the hands of the Turks since their arrival in Anatolia in 1041. This archive is a very important data treasure. With the development of computer technology in the 2000s, digitalization studies have begun for endowments in this archive. Today, there are foundations in 40 states in 3 continents where the Ottoman Empire ruled and endowments which are the certificates of these foundations. In the General Directorate of Foundations Archives (VGMA), there are 42.612 foundations left from the Ottoman Empire to the present day being 42.150 Recorded Documents and 426 Appendants. 92% of the 38.612 these foundations rest within the borders of present-day Turkey, and 8% are in other countries. Half of these remaining 4000 foundations are in countries of the Balkan region. 21.000 of the total documents which compose 50% of the documents indicating the evidence for the existence of these 42.612 foundations are the Personality Records which have information related to assignments, 17.000 of it, representing 40%, belong to endowments and 10% of them are the other type of documents (Özyer, 2005, 36).

In this paper, which we prepared basing upon the documents and information pertaining to the foundations in the archive, we will use the endowments we collected from Foundation Archive Module (VAYS) as a source, we will explain to which record books (registries) these endowments were recorded and we will put forward the classification of these registry books. In addition, we will present this extensive archive and classified version of 27 thousand foundations with their geographical locations (where they were established) in this paper

Key words: Archive, Foundations, Endowments, Geography, Endowment Book.

1. INTRODUCTION

The official document, which contains the characteristics and charitable conditions of the real estates and real estate properties that the foundation has established, and has been proved by kadi before the witness, is called as "endowment".

The endowment or the foundation certificate-charter is a legal document that contains the provisions and rules which the ruler has issued regarding the formation and functioning of the foundation. The lawyers looked for a number of conditions about the person to establish the foundation and the things that were endowed. According to these, anyone who is free and rational and has not been retained from using his property due to any debt has the right to establish a foundation. It is also necessary that the income of the foundation is sustained, that it is under the full ownership of the foundation and that it can be used comfortably.

Foundation papers were written in paper and parchment scrolls, or in volumes ranging from one to four hundred pages. In our opinion, it is possible to allocate a foundation to seven sections in general.

One or more kadis (kadi, judges, soldiers), even sultans' attestation, signatures and seals.

1. An introduction part where after the Foundation expresses praise to Allah and the pray to the Prophet, describes the world, explains its perspective of life and explains the grounds of the foundation it established, etc.

2. Information about the Foundation: name, father's name, profession, personal qualities, etc.
 3. A description of the movable and immovable income sources, which have been devoted by the foundation, for the purpose of building and the operation of the buildings allocated by the Foundation and for the benefit of humanity. This section also contains forms of the goods in question.
 4. The conditions determined by the related foundation and the services to be realized with the foundation income, the wages to be paid to the personnel and the revenues of the foundation...
 5. Among the opinions of the ancients and the great Islamic jurists, the judge who chooses the most favorable opinion for the category of the foundation.
 6. Damnation statements for the ones to disrupt the conditions stated in the foundation certificate-charter, the history of the endowment and the witnesses...
- The foundation certificate-charters prepared by such a systematic system were registered by the kadis in the court registers. They handed the original of the foundation certificate-charters to the trustees, who were appointed to manage the foundations according to their contents.

2. OTTOMAN ARCHIVES AND ENDOWMENTS

We see that there is a tradition of holding books in the Ottoman Empire from the earliest stage. Correspondingly, the books were found in the Ottoman Archives since the beginning of the 14th century. For example, the oldest book on land demolitions today dates back to 835 (1432). In the 18th century, the number of these is over a thousand, including mufassal, icmâl and timar-ruznamçe. Also mühimme, ruûs, bonds; accounting mukâtaa, ruznamçe of Divan-ı Hümâyûn from the 18th century, reparation, discovery and ethic of revenue office; mevâcib of the military office; ruznamçe books of the foundation and alike, also the complaints books after the 17th century constitute the types of around 400,000 books as a result of the expansion of the boundaries and organization of the state, some exist formerly, some of which arose from the necessity and today exist in the Ottoman Archives. In addition to these, the court records, the orders sent from the center and the cadre records in which the local decisions were written reach significant amounts (Göyünc, 1991, 90).

One of the places where these books are kept is the Ruûs Kalemi. This place is one of the most important officces of the Divan-ı Hümâyûn and is the office where all servants except the queen, the governor, governor of sanjak, owners of mevali, fiefdom and commandery, and all the civil servants who receive salaries from the treasury, general directorate of foundations and customs and are assigned and their records are kept. The paper showing the appointment treatment of such civil servants is called the ruûs, and they are recorded in the Ruûs books kept at this office. In addition, the Ottoman archives in the foundation Evkâf-ı Hümâyûn Nezâreti documents are evaluated and classified separately. Today, the foundations are collected in the archives of the foundations and classified and presented to the researchers.

3. FOUNDATION ARCHIVE AND ENDOWMENTS

Foundations that have survived to the present day and are registered in books are located in Ankara Archives General Directorate of Foundations. In the foundation archive under the auspices of the General Directorate of Foundations (VGMA), there are 2376 registers of different numbers, dates and contents. 197 of these books are unique in terms of original calligraphy, gilding and skin and are kept in special cases. It is estimated that there are approximately 237,500 documents as the original or copy of these books. 27,019 of these documents are the foundation certificate-charters and addendum foundation certificate-charters which are the legal basis of the foundations. Others consist of verdict, kayd-i hakanî, edict, warrant, title deed, explanation, extract, condition amendment, equalization sheet, imperial decree, Şûrâ-yi Evkaf and Şûrâ-yi Devlet decisions, records and similar documents. But they do not represent all the foundation certificate-charter. The number of foundations established in the period of the Ottoman Empire

can be known after scanning all Şer'iye registers and Tahir books belonging to the courts of the Ottoman period.

The volume of the pledges expands in proportion to the conditions of the foundation by the endowed real estate and charities. Two ways were followed in the organization of the foundation certificate-charters. In the first, the certificate-charter was created by combining the papers. In order to emphasize that no addition was made to these certificate-charters, "merging is authentic" expression was written and preserved in the form of a roll. In the second case, the charters are arranged in the form of hardcover books. In some of these types of charters, the letter is enclosed or gilded. The original foundation certificate-charters which belong to the sultan, sultana and high bureaucracy are usually written innaskhi and thuluth writing and the representations were copied with diwani or diwani hybrids. The art of writing and the quality of stationery materials vary according to the time and the importance of charter. For the preservation of the original charter, copies of the documents have been issued by Kadi. The authenticity of these copies are faithful to the original can be understood from the expressions such as "tibku aslîhi'l-â'lâ", "tibku aslîhi's-şerîfi'l-hâkânî" or "tibku aslîhi's-şerîf bilâ tağyîr ve't-tahrîf" on the document. (Kütükoğlu, 1998: 359-369).

Ibrahim Ates and H. Baki Kunter divided the charters at VGMA into four groups as of their establishment dates:

1-Foundation certificate-charters before the Ottoman period,

2-The foundation certificate-charters of the Ottoman period,

3-The foundation certificate-charters of Parliament and the Government of the Republic of Turkey period,

4-Between 1926-1967 the deeds of trust established in accordance with the Civil Code and the articles of foundation of foundations established in accordance with the provisions of the Law No. 903 adopted in 1967 (Ateş, 1985: 26-31; Kunter, 1942: XV-XXIII).

Foundation Records Archive, is a fund composed of any kind of documents and papers related to the establishment and organisation of the foundations with documents such as foundation certificate-charter, edict, warrant, judgments, title-deed etc. throughout history.

Foundation Records Archive consists of books and records kept before the establishment of the Evkaf-ı Hümâyûn in 1826 (1242 Hegira calendar), Chief Harem Eunuch, the minister of selâtin foundations at the center, Haremeyn foundation inspector, Evkaf accountants and books kept by various authorities and by headquarters and provincial organizations after the establishment of the Ministry of Evkaf-ı Humayun.

In the Ottoman Empire, while the foundation works were discussed in the diwan, the ministry of selâtin foundations, Chief Harem Eunuch, the Haremeyn foundation inspector, the Evkaf accountant and the trustees were present and were waiting readily. Government services and foundation services were closely linked. In cities and towns, public services such as public works, education, culture, health and welfare were largely covered by autonomously managed foundations. Therefore, issues related to foundations were discussed in the court until the establishment of the Evkaf-ı Hümâyûn Ministry and the decisions taken were recorded. After the establishment of the Evkaf-ı Hümâyûn Ministry, the records of the foundations which were kept by the officials, who were in the custody of either the Chief Harem Eunuch and the foundations in their possession, were transferred to this ministry. After that, the Foundations (Evkaf-ı Hümayun) Ministry kept the records of the foundation more regularly. Here are the records of the Foundation Records Archive, which were kept before and after the ministry. The Foundation Records Archive was kept in the Istanbul Atik Ali Pasha Madrassah in the last period of the Ministry of Foundations (Evkaf-ı Hümayun Nezareti). The books which should be worked on during the day used to be brought to the Foundation Records Office and returned to the storehouse when the job was done, the storehouse used to be closed and sealed during the nights (Alkan, 2010: 2-34).

Much as The Foundation Records Administration (Archive) remained in İstanbul after the removal of Ministry of Foundations in 1924 and the establishment of the General Directorate of

Foundations, it was transferred to General Directorate of Foundations in Ankara in February 26, 1936.

The most important objectives and purposes of the Foundation's Records Archive are to provide the creation of the works of the foundation from the generation to the generation by revealing the foundation and other documents related to the foundation works of the General Directorate of Foundations to which it has been connected, the aim of this course is to present the documents to local and foreign researchers who want to do research and to form a source for documentary research.

Before the VAYS (Foundation Archive Management System) project carried out in the Foundation Records Archive in 2005, there were 2376 logbook and these books were composed of funds such as judgment (ahkam); title-deed, warrant, edict, certificate, treasury, type record (ruznamçe), new personality, explanation, explanation of regulations, extracts, accounting, fodula, evamir, and the average of each logbooks, except for the type and foundation treasury books, has 600-750 documents, and in the typeface and foundation treasury books the number varies between 2000-3000 and the total number of documents are estimated to be 500.000.

The books in the Foundation Records Archive are composed of funds in various ways and these funds have not been changed due to references to each other on the books and should not be changed.

A total of 27,419 foundation certificate charter and addendum charters which were in the archive, 25,461 of which were in Ottoman, and 1.958 of them were Arabic, the translation of the Ottoman ones to Arabic and the ones from Arabic to Turkish were completed.

As previously mentioned, the number of foundations established in the Ottoman Empire is 42,612. 38.612 of them are in Turkey, there are also 4,000 beyond our national borders. Accordingly, while the rest of foundations established rates as 92% in the territory of Turkey and the rest 4% was established in Balkans and the other % 4 in Balkan countries.

In the last period, the Ottoman Empire made reforms in the administration of the Anatolian and Rumelia provinces. One of the most prominent of these reforms were 1864-1870 Directories of Provinces. With these regulations, the provincial administration was taken over from the beginning and a new and established province has been organized, vital changes have been made in terms of city centers as named today. The new administrative units in the Ottoman Empire are described in detail. The state is divided into 27 provinces and 123 sanjaks in administrative terms. In the territory of Rumelia, the state had 44 provinces, while in the Anatolian territory there were 16 districts and 74 sanjaks. In North Africa, there were 1 province and 5 districts. In addition, some of the brigadier generals called elviye-i gayri-mülhaka were directly connected to the center. Egypt, Bosnia and Crete, which has a special status as the territory outside of this regulation because of their different status and condition, have been divided into the Hijaz and Yemen regions as they are based on the distant and tribal order (Gökbilgin, 1946, 641-703).

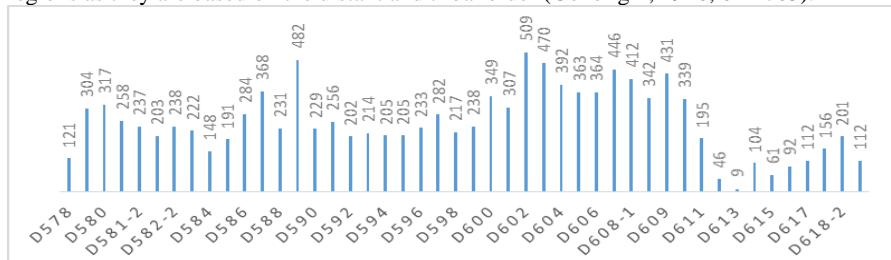


Table 1 Distribution of the Foundations (11.697) in Anatolian Record Books according to the Registries

The books are mainly composed of records in the Ottoman Empire, which are expressed as Anatolia and starting from the Anatolian side of Istanbul, and are now composed of Iraq, Syria,

Lebanon, Egypt, Jordan, Libya, Azerbaijan, Armenia, Georgia, Ukraine, Crimea and Cyprus. However in the registry books, endowments belonging to the cities and counties in Rumelia. The reason for this is that, some foundations have income and charities in Rumelia or the kadi position is one of the Anatolian cities.

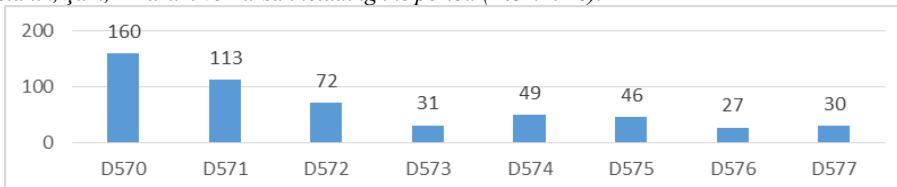
The series of Rumeli Vakfiye Books consists of 814 books containing 5 books. According to these notebooks, the distribution is as follows.



Table 2 Distribution of the Endowments in the Rumeli Registry Books (814)

Most of these registry books have Istanbul and Rumeli records.

There are also records for Kudüs, Çeşme, Kıbrıs, Sakız, Midilli, Adana, Erzincan, Gediz, Elazığ, Yalova, Çankırı, Keskin, Kastamonu, Amasya, Tosya, Antalya, Bolu, Tavas, İzmit, Kütahya, Bursa, Çorum, Mihalıç, Gönen, Bayındır, Konya, Gördes, Sandıklı, Akdağmadeni, Niksar, Koçhisar, Çine, Yozgat, Çine, Balıkesir, Zile, Terme, Tokat, Nif, Tavas, Bozkır ve Maraş. Istanbul Endowment SEries (570-577) are composed of 8 registry books. Most of these registry books are situated in Istanbul and its surroundings, there are 528 endowments belonging to Tekirdağ, Gelibolu, Niğde, Edirne, Sofya, Selanik, Şam, Erzurum ve Bursa including the period (1431/1918).



Registry books series called as Pious Foundations is a fund composed of 13 record book. In this record book, there 3.545 records.

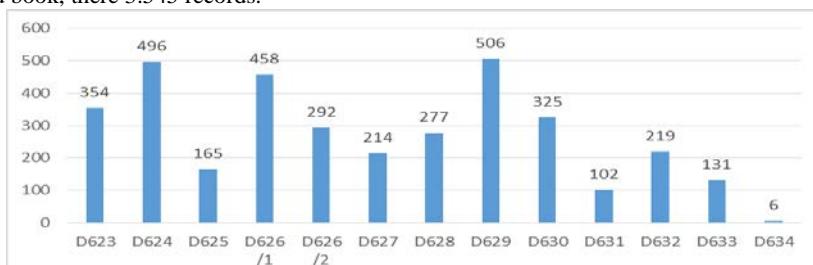


Table 4 Distribution of the Endowments in Record Book of Pious Foundations (3.545) according to the Record Books.

Most of these foundations are situated in Istanbul and its surroundings and Rumelia. Apart from these, there are endowments belonging to Sivas, Chios, Rhodes, Limni, Lesbos., Kıbrıs, Konya, İzmit, Manisa, İzmir, Antep, Yalova, Niksar, Ürgüp, Erzurum, Simav, Emet, Kastamonu, İskilip, Erzincan, Karahisâr-ı Sahib, Merzifon, Bursa, Amed, İskenderiye, Amasya, Edremit, Maraş,

Aydın, Bolu, Mudurnu, Şam, Tokat, Besni, Burdur, Bigadiç, Çankırı, Denizli, Kayseri, Arapgir, Niğde, Adapazarı, Yalova, Trablusşam, Ankara and Alaşehir.

The Haremeyn Foundation Book Series consists of 19 notebooks and 3029 endowements in these books.

In addition to managing the foundations of Mecca and Medina, Haremeyn Nezâreti (Dârüssaâde Ağalığı), undertook the management and control of the foundations, which were generally allocated to Haremeyn in the foundations and which were stipulated to be governed by the Haremeyn. In addition, important foundations that have been transferred from Islamic states such as Ayyubids, Mamluks and Seljuks also fall under the jurisdiction of this charter. In the Ottoman Empire, the desire for Haremeyn also appears under the supervision of the foundations.

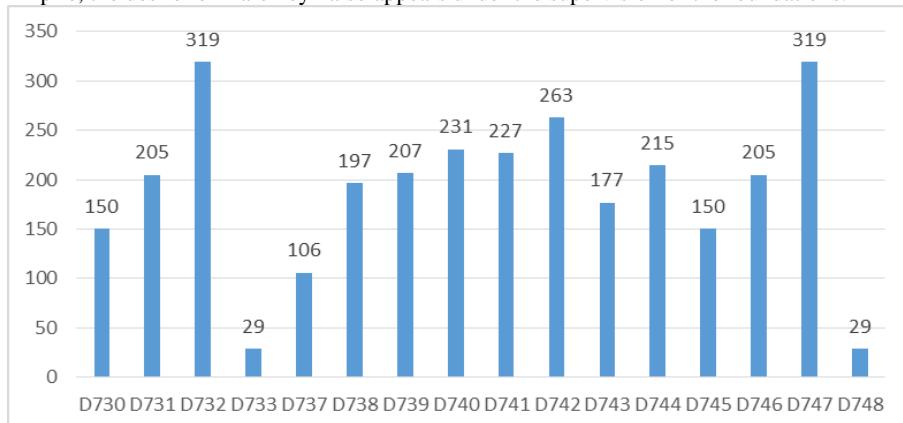


Table 5 Distribution of the Endowments in Haremeyn Record Books (3.029)-

These record books include records belonging to İstanbul, Kili, Kütahya, Belgrad, Filibe, Şumnu, Şam, Trapolice, Karitene, Vidin, Ruha, Tire, Rodosçuk, Cide, Sapanca, Edirne, Aydin, Murtazaabad, İzmir, Tokat, İzmit, Yalova, Bayramiç, Ürgüp, İskefsir, Bafr, Lefkoşe, İsmailgeçidi, Arnavud Belgradı, Halep, Bağdad, Hanya, Samsun, Peçin, Bursa, Maraş, Bozcaada, Kastamonu, Manisa, Nevşehir, Karahisar-ı Nallı, Kalecik, Bolu, Budaközü, Kilis, Karaman, Vize, Trablusşam, Misir, Sofya, Hotin, Rusçuk, Yüreğir, Kestel, Yalvaç, Küre, Kemah, Taraklıborlu, Turgutlu, Mekke, Medfine, Selanik, Adana, Ayaş, Edremid, Balyabadra, Antakyा, Midilli, Akhisar, Konya, Kefe, Niş, Bodrum, Sivas, Silistre, Zile, Trabzon, Atina, Amasya, Kalvatra, Edirene, Antep, Kirili, Kandije, İlica-i Bergama, Molva, Tatya, Sakız, Muğla, Ankara, Eğriboz, Bergos, Sefer-i Hisar, Sayda, İshaklı, Gördes, Kale-i Sultaniye, Erzurum, Görice, Zara, Mostar, Kavala, Bi'rettü'l-Fırat, Tiflis, Ahisha, Bender, Çerkeş, İslimye, Sinop, Yafa, Gemlik, Balçık, Birgi, Şeyhli, Harput, Varna, Travnik, Siroz, Merzifon, Alaşehir, Bayındır, Vudine, Ayvalık, Kuşadası, Akka, Biga, Bozok, Süleymanlı, Kalunya, Bendirekli, Kudüs, Gölköy, Karahisar-ı Şarkı, İskenderiye, Rodos, Tırnova, Harabolu, Silivri, Akçaabad, Bilecik ve Crete.

According to the results we collected, Ottoman foundations are as follows in the figure.

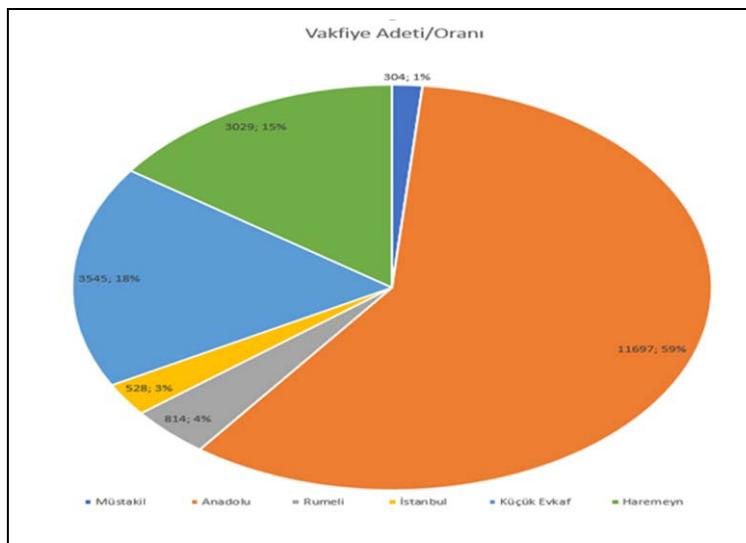


Figure 1 Ottoman foundations

In this article, we examined the endowments of foundations as foundation documents and their funds in the archives of foundations. We have determined that these foundations are classified according to the organization, management and the regions they serve. It should be known that not only in the archives of foundations but also in many places such as the Ottoman Archives, the Municipal Register, the Land Registry Archives Archives and the Istanbul Mufti's Office, there may be an endowment. Many of these endowments are now in the Archives of the General Directorate of Foundations. Foundations, their number including the period 1401 and today, which was determined basing upon the sources in archives and endowments which are the establishment documents of these foundations have beeen classified and shared in this study. . In this article, it is determined that the foundations that we have taken with holistic approach have 6 foundation record book series and there are 19.917 endowments in these record books. Today we see that there are 5,083 foundations in Turkish Republic. Some of these foundations, which are very different from the Ottoman foundations in terms of quality and service areas, are like the provincial / district assistance association. Some of them have been established as a university foundation.

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INFORMATION LITERACY NEEDS OF FACULTY: A CASE OF ONE UNIVERSITY IN THE MIDDLE EAST

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ABSTRACT:

Most people expect faculty as teachers and researchers to be knowledgeable and well skilled in information literacy (IL) and thus when librarians are planning IL sessions for students, faculty and other academic staff are overlooked. At this university in the Middle East, recently there has been a push for professors to publish not only to contribute to the knowledge base but also contribute to raising their university rank. The ranking fever has had a snowballing effect, as the higher the rank, the better the university is considered and higher chances of attracting students, which in turn also increases chances of better funding from financing bodies, as well as attracting quality faculty. Faculty need to know the key journals in their disciplines especially those that are ranked highly. In addition, they need to be able to cite their sources and present them in various formats required by editors of the journals they are publishing in. Furthermore, faculty need to be knowledgeable on how to identify vanity publishers who are also taking advantage of young professors who want to accelerate in promotion. Librarians being information professionals have the skills to guide faculty on how to gain the skills. This paper will discuss how librarians are supporting faculty through training sessions to meet the demands of academic publishing. This is a paper that describes practice at this institution and compares what is done to other universities in the world, supporting the argument that faculty do need IL skills to be more effective searchers and researchers. Most studies in the literature focus on faculty and librarians' collaboration in teaching and integrating IL in the course content, as well as faculty perspectives of their students IL. This paper will contribute to the literature and add to the knowledge base about the IL skills for faculty.

Keywords: Information Literacy, Faculty, workshops, workplace information literacy, academic staff

1. INTRODUCTION

Information literacy (IL) skills are key to everyone for daily life, academic and work place. Many studies on IL skills have focused on IL skills for students both in schools and colleges, thinking of building life long learning skills. Very few studies have been written about IL needs of faculty or what faculty needs as their workplace IL skills. Studies conducted about IL mostly discuss curriculum, best practice, teaching strategies, integration of IL in the curriculum, student perception of IL and faculty perception of IL. This tendency disregards the fact that academic faculty as researchers and instructors also have needs of their own and do require some sort of training in IL to be able to manoeuvre their way through the information available, evaluate it and use it ethically while creating knowledge. There are many advantages for training faculty in IL, for the faculty, the students and Librarians; IL literate faculty will become allies of librarians and libraries (Eva & Shea 2015, Cowan & Eva 2016), they will be able to inform their students. Inaddition, they will reinforce IL skills taught to their students, and will be able to design assignments and assessments that are realistic, requiring students to apply and practice their learned IL skills, hence engaging them effectively (Leckie 1996 in Cowan & Eva 2016: 166). In addition, with faculty buy-in, it will be possible for IL skills to be better integrated throughout the curriculum.

2. LITERATURE REVIEW

Most studies look at collaboration amongst Librarians and faculty in delivering IL, a review of literature found very few studies about IL for faculty. Cowan & Eva (2016) for instance discussed how faculty can be taught IL skills in order for them take on the teaching role for their students.

Storie& Campbell (2012) studied the whole university community needs for IL skills. Specifically, they found out that only a few faculty received IL instruction, the majority lack search skills indicating a limitation in their IL skills as only a few managed to conduct searches. Maharan and Misha (2007) studying faculty at Sambapur University in India, addressed the issue of IL levels of faculty and found-out there was heavy reliance on search engines for research, instead of using subscription databases, faculty also demonstrated limitations in conducting effective searches due to lack of search skills competency. Other studies (Moore & Ivory 2000, Dixon, Barboza, Jensen & Schwartz 2017) found-out that faculty lacked knowledge of the research process, as they relied on a single database or journals they were familiar with or their favourite journals hence missing out on valuable information published elsewhere. All in all, these studies indicate there is need for providing IL training to facultyin order for them to have solid research skills and use a variety of resources in their research.

3. CONTEXT: THE INSTITUTION

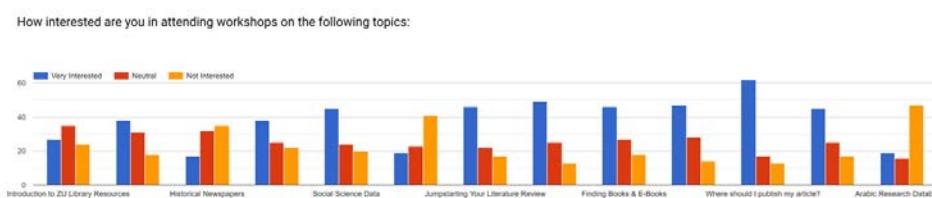
The institution under discussion is Zayed University located in the United Arab Emirates. It was established in 1998. From inception Information Literacy has been one of the six learning outcomes. Librarians have engaged in teaching IL to students in not for-credit programs, and over the years IL has undergone various transformations but still very much present. The student population is about 10,000 FTE located in two campuses; Abu Dhabi and Dubai. Most of the students are undergraduate enrolled in eight colleges: Arts and Creative Enterprises, Business, Communication and Media Sciences, Education, Humanities & Social Sciences, Natural, Sciences and Public Health, University College, Technological Innovation and the University College. There are about 300 students enrolled in graduate programs (masters) (ZU Fact book 2017-2018).There are approximately 300members of faculty from 56 countries(ZU Fact book 2017-2018), although most have received their education in western universities, they come with varying levels of information literacy skills depending on their education preparation and fields of studies.

The university was primarily a teaching-focused university with small class sizes, a maximum of 18 students. Faculty performance evaluation was mainly in teaching, research and services where teaching played a key role. In 2013 the university focus changed to more research orientation to meet one of its strategic planning goals i.e. “Enhance the leadership role of the University in scientific research and development in ways that contribute to a knowledge-based economy” (ZU Fact book 2017-2018: 8). With this faculty were required to engage in more research and publish and or creative activities. During this transition a wave of panic engulfed faculty and they began to ask many questions about publishing standards, where to publish, where one could get funding for research, the fastest way of changing references in a paper to fit the various journal editor's requirements, reliable journals and or recommended journal for their topic or discipline. All the questions were directed to liaison librarians either through email communication or face to face and at the reference desk. While all the anxiety was taking place, some faculty began receiving emails from vanity and fake publishers inviting them to publish books, papers or others forms of research with them promising quick turnaround for the results encouraging them that it is a quick way to get known and promoted.

During this time Librarians had been providing faculty workshops either on demand or on a topic that Librarians felt faculty would find interesting. For example, in 2015 during the faculty Professional Development week several Librarians presented workshops on topics such as “increasing your research visibility”, “copy right awareness”, “patents and your rights”, “Introduction to RefWorks for researchers”, “Research 101” etc. such workshops were organized in collaboration with the University Office of Research. The workshops facilitated during faculty Profession Development week or Research Days were required for faculty and thus attendance was impressive ranging from 25 to 30 plus attendees per session. In addition, there were several

one-on-one consultations, but with the frequency and increase in number of queries, an agenda was tabled at the Library Information Literacy Council (ILC) to discuss the best and most effective way to manage faculty information literacy needs. A task force was created and agreed to conduct a needs analysis survey. A simple survey with 7-items with close-ended questions was created to find out what were the actual IL needs of faculty, i.e. their training needs, best times to meet or to organize training and frequency of the sessions. A survey was created and reviewed by members of the ILC. After approval, the survey was sent out to all faculty through a campus email announcement. A link was provided for faculty to access the survey. A total of 98 faculty responded. From the responses, the librarians agreed with participants that the workshops were to be offered on Monday and Wednesday during lunch break from 12:30 to 13:15 hours, allowing faculty time to return to their teaching commitments.

Table 1: Results of the survey: Workshops of interest



Faculty indicated that they were very interested in all suggested topics except for Arabic databases. This is mainly because most respondents lack Arabic language skills, nor do they need the resources for their research or teaching. The most favoured topic of interest was “Where should I publish my article” followed by “Jumpstarting your Literature Review” and “Finding books and E-books” as well as “Introduction to library resources”, all topics supporting the need to be equipped with skills for scholarship and publishing so as to meet the research agenda and be able to promote in the academic ladder.

4. WORKSHOPS FOR FACULTY IL SKILLS

From the results of the survey librarians agreed to facilitate 6 workshops which were selected by most faculty indicating they were very interested (Table 1). The mode of presentation was face to face workshops with a lot of hands-on activities followed by individual consultations either with a workshop facilitator or the subject liaisons. Since the sessions were taking place during lunch break, the Library leadership agreed to provide a light lunch for the attendees to maximize the time they are in the workshop. Announcements were sent through campus email requesting faculty to sign up in advance to allow arrangement of food and preparation of teaching materials such as handouts. The topics that were promoted were as follows:

- **Library Basics** includes: Introduction to the library, services and its resources; finding books, using e-books and ILL services
- **Finding Articles**, covers: Introduction to Library databases, search strategies, and creating alerts for articles/publications in researcher's area of interest
- **Jumpstarting your Literature Review**, involves consultation with subject Librarians to work on individual research topic, introducing the most relevant database, brainstorming for keywords and creating a plan for the literature review- this workshop requires participants to register 2 weeks in advance and indicate their research area or topic prior to the session. Liaison librarians them work with the faculty, a consultation

- relationship follows with follow-up sessions and or email communication and setting alerts.
- **Manage Citations with RefWorks**, introduces researchers/faculty to a reference management software, covers how to manage references found during a literature search, creating accounts, creating references manually, exporting citations from databases and catalogues local and other Libraries, creating bibliographies in a citation style of choice and using the cite as you write application.

The last workshop is:

- **Where should I Publish my Research**, covers how to find suitable and appropriate journals to publish, criteria for evaluating journal and book publishers, conference providers, how to track one's research dissemination and increase researcher's visibility, explanation of various search metrics.

These workshops have proved to be popular with both new and continuing faculty and have now become part and parcel of the Library outreach activities. Sessions are repeated every semester. Librarians and students have both become beneficiaries of the workshops as faculty attending the workshops appreciate the depth of knowledge of Librarians and see the value for their students to tap in this knowledge assisting in using scholarly resources for the assignments and using RefWorks to manage their citations. The number of students' instruction sessions have increased especially in the majors. The faculty invite Librarians to introduce search strategies and using discipline specific databases, and for senior students how to find articles in grade A and B journals, while others want their students to learn how to use RefWorks.

5. CONCLUSION

This paper has demonstrated that everyone including faculty need information literacy skills. With technological development new tools are created and a lot of information is published at an exponential speed requiring researchers and educators to be well versed and knowledgeable about strategies for getting information for the research effectively, to be able to evaluate the resources they find and to communicate the information in the medium that will enhance their professional visibility. As observed by other researchers and authors in the previous studies, exposing faculty to IL allows Librarians to promote their subject skills and knowledge, showing what they can do to support faculty and students research. This allows for more connections to be formed and Librarians get invited to deliver IL sessions to students in the classroom. Faculty search skills also improve as we now receive fewer questions. Some Librarians have also been invited to work with faculty as co-researchers.

6. RECOMMENDATIONS

From our experience, we recommend that librarians should find out faculty IL needs, work with them closely in a manner that is preferred whether it is online or face to face to ensure that their information and search skills assist them in their research and teaching. When workshops are organized on the topics that faculty have indicated they need to learn more, attendance will be good, and more learning will take place.

Faculty who are information literate will indeed be Library allies and teach their students the effective and proper way of finding and using reliable resources in their projects. This becomes a win-win situation for the students, the faculty, the Library and the university.

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