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Aims and Scope

IFLA Journal is an international journal publishing peer reviewed articles on library and information services and the social, political and economic issues that impact access to information through libraries. The Journal publishes research, case studies and essays that reflect the broad spectrum of the profession internationally. To submit an article to IFLA Journal please visit: journals.sagepub.com/home/ifl

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Call for papers: IFLA journal special issue on knowledge management

IFLA Journal and IFLA's Knowledge Management Section are pleased to announce a call for papers for a special issue focused on Knowledge Management (KM).

Managing institutional knowledge is increasingly recognized as a crucial element in improving competitiveness, innovation, and creativity. Libraries seeking to be resilient organizations in a quickly and unpredictably changing world know that KM is essential to their internal management strategy, and librarians in particular have the necessary skills and competencies to put it into action. Libraries contribute to their parent institutions by helping them to develop their own approach to KM, providing them with methods and tools to address their own development, and transform themselves in a transforming world.

As the number of knowledge workers increases in all sectors, practicing effective KM requires attention to human resources, a mature use of technologies and the ability to deploy effective processes.

IFLA Journal invites papers for a special issue focused on Knowledge Management across all continents. We intend to gather the latest theories, research, and practices from libraries and information professions to further the discourse on the current state of Knowledge Management in libraries and other information-rich institutions. We are particularly interested in articles employing quantitative or qualitative research methods in their approach to knowledge management.

Topics of interest include, but are not limited to:

- The role of Knowledge Management and knowledge managers in organizational change management and fostering innovation
- Connections between KM, open access, intellectual property, privacy, and institutional integrity
- The implementation and use of social media, blogs, intranet, and other platforms to share knowledge, improve collaboration and team spirit, and involve colleagues and communities
- Methods of teaching, coaching and mentoring knowledge workers, including job-shadowing programs

- KM in academic curricula, and continuing training for knowledge managers
- KM approaches in multicultural environments; diverse KM approaches in different socio-cultural environments
- KM and digital scholarship: a possible alliance to face new challenges (new forms of publications, content curation, big data, research data services . . .)
- Success and failures in KM

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Submission deadline

Articles for the special issue should be submitted to *IFLA Journal* for peer review on or before Friday, 19 April 2019.

Call for papers: Theory and practice in information literacy

IFLA Journal and IFLA's Library Theory and Research (LTR) and Information Literacy (IL) Sections are pleased to announce a call for papers for a special issue focused on theory and practice in information literacy. With the potential to transform lives and societies, the importance of information literacy is appreciated world-wide. Our understandings of information literacy come from across the globe and ranges in focus from practice-based to highly theoretical; from everyday life to education and workplace settings; and for infants through to the elderly.

IFLA Journal invites papers for a special issue aims to examine a range of critical approaches and research models that contribute to building new theory; the challenges of applying theory in practice and how learning theories can inform practice. The issue will be published in the spring issue of 2020 as Volume (46), Issue (1). In particular, the main goal of the special issue is to explore how the body of information literacy practice can inform the building of theory, which in turn can inform future practice. It will also explore the potential for developing knowledge to guide information literacy practice across disciplines, contexts and environments.

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Topics of interest include, but are not limited to

- building new theory in information literacy;
- the challenges of applying theory in practice;
- the technology dimension in theoretical frameworks;
- how learning theories can inform practice; and
- cultural perspectives associated with learning.

Submission deadline

Articles for the special issue should be submitted to IFLA Journal for peer review before **June 30 2019**.

How to submit a manuscript

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Learning strategies for engagement and retention of young audiences

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Abstract
This article examines the available literature on engaging young audiences to visit libraries, museums and performing arts shows, and their strategies for developing permanent audiences. The recommendations drawn from the review serve as an input for the Latin American Library for Children and Youth that is currently in a planning stage. Ideas regarding program, partnerships, communication and promotion of libraries in the context of the 21st century are explained in accordance with an audience approach that emphasises the presentness of children and youth, the demands and motivation of cultural participants, and the need to enable cultural rights.

Keywords
Children, cultural audiences, public libraries, 21st-century learning, youth

Context

Despite increasing global access to technology and connectivity, which facilitate remote modes of communication and learning, in the context of the 21st century the library is still a meeting place for the community. The validity of this assertion is what drives the project of the Latin American Children's and Youth Library (LACYL). The LACYL is currently in a planning stage and is expected to come into service in Chile in 2020. Its mission is to offer children, youth and their families a cultural space in which they can discover books and reading, access a diversity of cultural manifestations, appreciate knowledge, and become creative, honest and responsible citizens (Mekis, 2016).

To accomplish this goal, the LACYL needs to internalise young people's cultural rights. When an organisation internalises cultural rights 'participation in cultural life becomes fundamental to an individual's self-identity and truly inalienable' (Reason, 2010: 30). Reason added that in an informal setting, such as a library, cultural rights 'would be about providing young people with the skills in spectatorship, the confidence and the knowledge that allows them to take possession of the cultural forms on offer on their own terms and in their own right' (2010: 30).

In this context, a literature review will examine the strategies that libraries and museums have implemented successfully for engaging and retaining young and young related audiences. Thereby, this paper aims to recommend learning strategies that invite children, adolescents, young adults and their families, and educators to the LACYL and are potentially successful in developing a permanent audience for the library.

I will achieve the aim of this study by examining the issue from various perspectives. Firstly, I will present an overview of the library as a learning centre in the context of the 21st century and its role in the community. In this section an emphasis will be given to the social aspects of learning and to learning in informal settings. Secondly, the concept of audience will be discussed in the light of the literature, especially whether young audiences should be considered as 'being', i.e. children here and now, or as 'becoming', i.e. adult audiences in the future. A third section will examine several strategies for engaging and

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retaining young audiences as informed by the literature, which will foster the recommendations to the LACYL. These recommendations will focus on aspects of programme, communication, partnerships and promotion of the library. Finally, this paper will discuss the importance of evaluation for retaining audiences and for the planning process as a whole, because as Feinberg and Feldman (1996: 103) indicated 'evaluation streamlines all activities of the library'.

The library and the community

Oldenburg (1999) coined the concept of the 'third place' to designate a neutral community space which is neither work nor home, 'where people come together voluntarily and informally in ways that level social inequities and promote community engagement and social connection' (Oldenburg, 1999, cited in Pastore, 2009: 9). Pastore (2009: 9–10) added that 'as opportunities for social engagement outside of private or working life and removed from the profit interests of commercial spaces, museums and libraries have the ability to identify and respond to community needs in ways that other spaces cannot'.

Oldenburg's third place emphasises the democratic value of the library in terms of making social equity possible. On the same lines, the International Federation of Library Associations and Institutions (IFLA, 2003) defined the publicly funded library in the 21st century as one of the most democratic of institutions by serving the particular needs of the community. It is regarded as a safe meeting point and a place where the community can gather, discover, learn, access local knowledge, enquire political and social issues, get inspired through the available bank of ideas, answer factual questions, acquire new skills, and experience sheer pleasure and enjoyment.

In terms of audience, the possibility of social equity was well explained by Pastore (2009) for whom 21st-century libraries and museums 'are not one-way channels of information that flow from institution to audience. Rather, they are networks of many channels, institution to audience, audience to institution, and audience to audience' (p. 7). This requires a deep involvement of the community throughout the library's planning and evaluation processes. From a marketing perspective, Kolb (2013) used the term 'culture participant' to define the new cultural consumer that comes along with social communication technologies: 'They want to move beyond merely attending cultural events. They want to have a say in the programming and even the art product' (p. 36). Kolb recommends that organisations must

provide an interactive cultural product that fulfils the culture participants' demands. A case in point is The Wing Luke Asian Museum in Seattle, USA, which developed a community-based exhibition model to empower members of the community to 'create their own exhibits and tell their own stories at the museum' (Pastore, 2009: 8). The use of this model is in line with the museum's mission of engaging Asian Pacific Americans to explore their art, culture and history.

All these definitions of the library in the 21st century emphasise the concepts of community and informal learning. In other words, nowadays the library is regarded as a place where people learn socially and informally.

Understanding social learning

Maddigan and Bloos (2013) compiled diverse library programmes centred in community literacy in the United States. As they defined it, 'community literacy is formed by the engagement of participants in activities that nurture discourse – written and spoken communication' (Maddigan and Bloss, 2013: ix). Being essentially collective, community literacy involves 'a way for people to acknowledge each other's multiple forms of expertise through talk and text and to draw on their differences as a resource for addressing shared problems' (Higgins et al., 2006, cited in Maddigan and Bloos, 2013: ix). This is a matter of social constructivism, a theory grounded in Piaget's and Vygotsky's psychology works. Vygotsky understood learning as a social construct: 'Each function in the child's cultural development appears twice: first, on the social level, and later on the individual level; first, between people (interpsychological), and then inside the child (intrapsychological)' (Vygotsky, 1978: 57), and he adds that 'what the child can do in cooperation today he can do alone tomorrow' (Vygotsky, 1986: 188). As Moll (2013) outlined, the Russian psychologist was interested in the way that human beings fashion their nature through the mediation of others, 'through the appropriation of culture and its resources, which change through history' (Moll, 2013: 1). In the same line, Dewey (1929) believed that education is a social process that occurs in community life, where the learner is driven to 'use his own powers for social ends' (1929: 'Article Two. What the School Is': para. 1). For all this to take place, the authors regard language in a social context as the main tool for knowledge mobilisation and concept construction (Dewey, 1929; Vygotsky, 1986).

Each of the programmes informed by Maddigan and Bloos (2013) features varied learning strategies and models, and they are situated in different venues,

in person and online. The authors believe that communities, just like technologies, are evolving but not losing their importance, and for this matter, schools and public libraries are two institutions that continue to play an evolving role in society. Although being pre-eminently literacy institutions, McKenzie et al. (2007; cited in Maddigan and Bloos, 2013: 2) consider that 'the public library cannot be seen as a single kind of space, but should rather be understood as a site that supports a variety of relationships and hosts a variety of realms'. Maddigan and Bloos (2013: 2) emphasise that 'by offering free programs for the members of any community, we are giving citizens a place to gather, engage in discourse, and develop relationships'. Accordingly, the idea of the library built in and for the 'democratic public sphere' (Buschman and Leckie, 2007, cited in Maddigan and Bloos, 2013: 2) has once again a leading role in the contemporary conceptions of community literacy. For this end, mapping the community is one of the most important planning actions to be developed by any library or cultural organisation, as informed by the literature.

Interactivity is a concept that cannot be left aside in the discussion of social learning and has been recommended as a strategy for museums and libraries in the 21st century to engage young audiences (Blud, 1990; Chow, 2013; Moorhead, 2005). When confronted with interactive activities or texts, participants and readers become active producers of meaning (Cordero et al., 2014; Groenke and Youngquist, 2011). Blud (1990), who conducted a study in the Science Museum of London, found that interactive exhibits encouraged more discussion among families than static ones. Interactive exhibits also demonstrated a significantly superior performance when approached by two or more people, rather than individually. These findings resonate with the social constructivist theory briefly described before.

However, interactivity is not the only learning experience worth developing in a library, if understood as a community literacy centre. The New London Group (1996) coined the term 'multiliteracies' for designating multiple ranges of knowledge, skills and practices, which involve printed alphanumeric texts along with media, technologies and interactions. Together with multiliteracies, 'multimodality' is another concept highly considered by the literature in this matter. 'Modes are the components and conventions of representing, expressing, and communicating meaning within any media or genre, such as sound, color, tone, music, and texture' (Jewitt and Kress, 2003). 'Modes intersect and combine in multilayered ways' (Dallacqua et al., 2015: 209). Hence,

multimodal texts and representations are essential for developing multiliteracies.

Informal learning in the digital era

Not much has been said in this article about the role of digitisation in the 21st-century library. Although opinions differ, Wayne Clough (2013) proposed an optimistic view based on the informal type of learning that occurs in museums, archives and libraries:

> In fact, the digital revolution offers museum, archives and libraries a golden age of opportunity, because they are ideally suited for a world in which learning is informal and centered on inspiration and self-motivation. Of course, online access to digitized documents and images from their collections opens the doors of these institutions to a much wider audience. But digitization also offers museums, archives and libraries striking new avenues to engage with those who use their services and to become fuller partners in formal and informal education programs. (pp. 9–10)

The issue of whether libraries should make use of digital tools to engage young audiences will not be discussed. There is strong evidence suggesting that digital generations are changing and which challenges the common belief that the new generations are the most digitally skilled (Fortunati et al., 2017; Taipale, 2016). However, by serving the community the library must introduce a variety of resources, formats and platforms to serve the needs of its members, including digital. With the aim of inviting a new audience, the Ryerson University Library in Toronto, Canada, created the Digital Media Experience Lab, 'a makerspace that is the top attraction frequented by student creators and visionaries who are keen to make use of the high-end multimedia workstations and a large inventory of technology purposed for student use' (Wang et al., 2017: 7). This has allowed students to develop innovating projects using cutting-edge technology and create for the real world.

Moreover, Juncker (2007) proposes that young audiences today demand a reshaped pre-modern oral culture:

> The oral, expressive culture and the accompanying concepts of enlightenment and enculturation, which dominated the era before the rise of the public libraries, but lost the battle to the 'scribes' and the print-based culture, have re-emerged. Taking the shape of the multi-media culture, these key concepts of the past now appear to be much more comprehensive and significant than the old public library pioneers would imagine. (p. 159)

In the light of our previous arguments, Juncker's insight corresponds not only to young people's demands but also to society in general, because more than just a generation, the digital era has changed culture as a whole. Therefore, digitisation needs to be at the core of 21st-century libraries in order to become successful informal and social learning hubs.

Approaches to young cultural audiences

Moving towards a better understanding of community involvement in library services and programme, this section will discuss the concept of audience development and outline some considerations to take into account when planning the library programme.

Particularly speaking of children and youth, the concept of audience development is charged with ideological meanings that need to be unfolded. The main concern has to do with the instrumentalisation of the arts for children for educational ends (Johanson and Glow, 2011; Reason, 2010). Juncker (2006; cited in Juncker, 2015: 25) addressed the problem of young cultural audiences through the dichotomy of children as 'being' in the present and 'becoming' adults in the future. By considering young audiences as 'becoming' adults, Juncker (2015: 25) held that 'the aim of cultural policy and cultural dissemination was to leave this participatory culture with its playing aesthetic-symbolic practice behind and to educate and qualify both taste and behaviour'. Reason (2010: 30) associates this approach to cultural policy with audience development, which values 'the adult audience they *might* become, rather than the audience they are now'. The problem is well illustrated by Drury (2006: 151) who, instead, highlights the presentness of the audience: 'Children are not the audience of the future. Rather, they are citizens of the here-and-now, with important cultural entitlements [. . .] Being 8 is a whole experience . . . there are understandings and meanings particular to being 8'. For Reason (2010), although with different aims, both education and marketing are responsible for an audience development approach to young cultural audiences: while education invests in knowledge and developing critical skills, marketing seeks to build a life-long arts attendance through early exposure.

Junker (2007, 2015) and Reason (2010) brought to the discussion the matter of rights. Since the ratification of the *Convention on the Rights of the Child* (United Nations, 1990), almost every country recognises the rights of children, which includes the right to freedom of expression: 'this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice' (United Nations, 1990, Article 13: para. 1). Therefore, cultural institutions, such as public libraries, should address what Juncker (2015: 27) called 'children's cultural communities', which communicate through action, and develop programmes that 'inspire and enrich children's playing, participatory cultures and their expressive lives'.

Johanson and Glow (2011) presented three organisations that have succeeded in developing a theatre programme for a young audience without educational involvement: The Windmill Theatre Company in Adelaide, The Sydney Opera House, both in Australia, and Gruppe 38 in Aarhus, Denmark. The authors identify two common elements in these case-studies: 'the engagement of children's imagination through both the content and the formal elements of the work, and the opportunity for communication or bonding between children, young people, adult audiences, and the adults who create the work' (Johanson and Glow, 2011: 65).

Consequently, with what was exposed in the previous section, the library as an informal and social learning centre is concerned about the needs and interests of the children and young people of the present and what they carry along with their lives at home, at school and in the community. Dewey (1929) also believed in this when he defined education as 'a process of living and not a preparation for future living' (p. 76). He continued outlining that 'school must represent present life – life as real and vital to the child as that which he carries on in the home, in the neighbourhood, or on the playground' (p. 77). Dewey's school may be a library, a museum or any other type of learning centre for children and youth, where learning is another word for experience.

Recommended strategies for engaging and retaining audiences

This study is interested in two types of audience: a direct audience, formed by children, adolescents and young adults[1]; and an indirect audience formed by adults related to the former group, such as parents, carers, educators, writers, artists and researchers.

A strong programme requires a clear vision, which can only exist when the real audience is understood. As this is not an empirical study, the audience for the LACYL will not be characterised. However, I will examine the ways in which other libraries have defined their audiences.

On one side, the International Youth Library in Munich, Germany, is regarded as the largest library

for international children's and youth literature in the world. Based on Jella Lepman's vision, the library has two guiding principles, one for adults and one for children: 'collecting, cataloguing and facilitating communication about children's and youth literature', and 'promoting cultural youth programmes and intercultural understanding' (Internationale Jugendbibliotek, n.d., IYL Leaflet: para 4). Thanks to the extensive collection – 560,000 children's and young adult books in 130 languages, 40,000 documentary materials and 130 current journals – the library invites every year up to 15 researchers for a few months to study the collection, as well as offering the visitors access to the reading museums, current exhibitions and the children's lending library. There are 25,000 books and other media in 15 languages available for children to read on site and to take home.

On the other side, the State Library of Victoria Centre for Youth Literature (2014), Australia, after 22 years of reading promotion, today has a clear vision and goals that have result in a loyal and increasing audience: 'The Centre for Youth Literature connects Australia's young people, inspiring our young adults to engage with books, stories, writing and ideas' (p. 3). The Centre understands the real need for young people to communicate with each other and build networks based on common interests, which in this case is literature. Under that premise, the Centre has built a strong programme encouraging youth participation. It includes creative writing workshops, meetings with authors and reading challenges. Also, they have found digital platforms to be effective to engage with this audience.

The International Youth Library and the Centre for Youth Literature serve as examples of successful institutions in which vision and goals are closely related to the audience they work with. Hereunder I will refer to some of the strategies for engaging and retaining audiences informed by the literature, which address issues related to programme, communication, partnerships and promotion of the library.

Programme

The literature consulted coincided unanimously in the need of a strong programme for engaging audiences, but what constitutes a strong programme depends on the organisation's aims. In this regard, Chow (2013) found flaws in the British Museum's programme for children and families. Although children are one of the Museum's targeted groups, the lack of consistent evaluation results in a programme based on trial and error, rather than a rigorous planning for this age group. In an interview (2007) with the Museum's

Head of the Department of School and Young Audiences Education he explained that changes to the programme depend on what is feasible to offer, 'we don't evaluate if we can't change any provisions at the moment' (Chow, 2013: 305). At the same time, the Head of Department stated that the Museum 'wants to make sure that there is always something for family to do over the year' (p. 304). Part of the reassessment that the study recommended was to adjust the family provisions for the actual visitor's age group: two-thirds of the children visiting the museum belong to the 5–11 years old group, and most of the activities provided are directed to 7–11 year-olds.

At this point, I need to differentiate recommended programme provisions for infants, children and youth. Parents have a lot to say regarding the infants' library activities, because they are participants to the same extent as their children. Brock and Rankin's view (2008; cited in Rankin and Brock, 2009: 114–115) on how to reach parents and infants involves the following actions:

- modelling and encouraging parents to read with babies and young children from an early age;
- providing a welcoming social space for families;
- showing that parents are valued and that they are important as their child's first educator;
- providing a variety of materials that can be borrowed, including multi-sensory, tactile books, story and information book, videos, DVDs and storysacks;
- creating exciting book displays to encourage parents and children to select a range of different books;
- providing activities such as colouring and drawing, story activities, singing, puppets, crafts;
- having story sessions at times to suit parents and carers, including dads;
- offering dual language story telling sessions and providing dual language books.

Among the activities for infants' reading promotion, Rankin and Brock (2009) encourage the use of treasure baskets, picture books and puppets, participation in rhyme times, musical sessions, storytelling sessions – including stories in different languages – as well as invite families to share stories.

There are successful experiences with children from 4 to 11 years old in opera (Cuenca, 2017) and from 2 to 12 years old in theatre programmes (Johanson and Glow, 2011), which work basically with adaptations of classic pieces and with works

composed and written specifically for children. The authors emphasise the importance of adapting the classical works to current themes and voices in order to facilitate identification. Cuenca (2017) highlights the Spanish children's opera programmes *ABAO Txiki*, in Bilbao, and *Petit Liceu*, in Barcelona. In the case of children's theatre, the Danish company Gruppe 38 is an example in the field for representing theatre works in a fairy-tale genre (Johanson and Glow, 2011). Although these activities differ from the ones that a library is capable to offer, two conclusions can be drawn from this age group. Firstly, as children from 2 to 12 years old attend to cultural activities accompanied by their families or educators the programme offered must be suitable for a wide audience. Secondly, the activities suggested for this audience are theatre and music performances, exhibitions, storytelling sessions, and other in which children are given the possibility to interact with one another and with adults.

The State Library of Victoria Centre for Youth Literature (2014) provides a good example of a participative youth programme. The Centre communicates with young people through a busy digital platform called *Inside a Dog*. It is defined as 'Australia's peer book-reviewing site for young people' (p. 16) and comprises user-generated book reviews, comment and discussion threads, an inspiration bank of young adult titles and new releases, editorial news and content, book clubs, author profiles, competitions, monthly Writer in Residence, Teen Writer in Residence, and moderation and monitoring of activity to provide a safe environment. Other interesting strategies are Teen Writer in Residence and Inky Awards. In the first one, 'Teens from across Australia write weekly columns on reading and books, sharing their insights and interacting with commenters' (p. 16). On the other hand, the 'annual Inky Awards are Australia's teen choice book awards, with a high-quality shortlist selected by a youth panel and winners decided by a public vote open to teens across Australia' (p. 16). These essentially digital programmes allow adapting content quickly enough, a wide participation since they are cost-free, and promote interaction among teens: 'we will move away from traditional models of panels and presentations towards increasingly interactive models of delivery' (p. 11). The Centre's programme is an example of how Kolb's (2013) culture participants' needs to produce culture are considered. As Buckingham and Harvey (2001) and Charmaraman (2010) reported about youth media production, when adolescents are given the chance to produce rather than consume

media, they experience an active process of meaning-making as well as motivation.

These highly interactive strategies place new questions: what is the role of the library regarding youth contents? Are young people entitled to manage their contents freely, even if those contents derive from the mass culture? Or is the library's role to mediate towards high culture? The State Library of Victoria Centre for Youth Literature (2014) is prone to the latter by stating that its 'programme will reflect a balance of critical and commercial tastes' (p. 11). On the other hand, Juncker and Balling (2016) support the perspective of giving voice and expression across interests and tastes, what they call 'expressive cultural democracy' (p. 232), taking distance from a high culture stance. The authors propose a more complex and dynamic relationship, which resonates with the task of internalising children's and youth cultural rights, exposed previously:

> An expressive cultural democracy is thus a mental expansion of cultural democracy, which allows people to create meaning in cultural activities in relation to their own life and their own creative activities inside so-called high culture institutions. Accordingly, cultural institutions and their collections should be seen as, and organized according to, a democratic platform for exchanging and negotiating meaning, as arenas in which both heritage and voice can interact (Juncker and Balling, 2016: 241).

Communication

The importance of including digital resources in the library has been developed throughout this paper, and it involves communication channels. In the previous section, I explored the Centre for Youth Literature's programme strategies, which are all based on online communication. Organisations such as libraries and museums have been using web-based communication with almost every audience for some time but, nowadays, social media are taking communication to another level. Kolb (2013) exposed the ways in which culture participants circulate information among digital communities: nowadays organisations' affiliations correspond to online friends groups, people upload their own works in the organisations' website or social media accounts, fundraising can be done through crowdsourcing methods, and a lot of information can be shared through podcasts, posted reviews, links to websites, among others.

Consequently, it is possible to say that communication channels and tools are constantly changing towards more efficient, quick and impactful uses, and

cultural organisations are already taking advantage of them for reaching new audiences. This is why the recommendation is to diversify communication channels, using online and offline tools, and use social media, where the library participants will propel the dissemination process.

Partnerships

Establishing collaborative actions with other organisations is regarded as a successful strategy for reaching new audiences (Lo et al., 2014; Maddigan and Bloos, 2014; Moorhead, 2005; Rankin and Brock, 2009; State Library of Victoria Centre for Youth Literature, 2014). In the context of low attendance and tight budgets that many non-profit cultural organisations face, such as museums and libraries, collaboration is highly recommended due to the possibility to share resources, policies and expertise. In the same line, Abram (2011; cited in Maddigan and Bloos, 2013: 3) identified that when libraries face economic challenges creativity and innovation increase: 'We can build new partnerships and find new, improved ways of doing things that may be more cost-effective and impactful'.

Moorhead (2005) presented the successful experience of The Women's Library (TWL) at London Metropolitan University, UK, at attracting local communities and young people. Since TWL's new venue opened in 2002 it experienced an increase of 700% in the number of visitors, but as a research indicated in 2003, the diverse ethnic communities in the local areas and youth aged 24 and under were not visiting the museum. Among the strategies implemented, TWL established a collaboration with the arts organisation Magic Me and with the BA students of the Fine Arts department of London Metropolitan University, which developed creative projects that would run alongside the main exhibition of the library: the history of beauty contests in Britain. These partnerships led to a successful promotion campaign: 37% of visitors were under 24 years old and 31% were local families. The partnerships continued after the exhibition due to the positive outcomes for all the actors involved.

Rankin and Brock (2009) highlighted the Western Australia's partnership programme *Better Beginnings* and the USA's *Family Place Libraries*, which focus on the early years libraries' provision and reading promotion. Together with *Bookstart* in the UK, both have demonstrated a considerable impact in their communities. This illustrates that partnerships can take varied forms and serve different objectives.

Promotion

As it was mentioned by Moorhead (2005), partnerships assisted The Women's Library in developing a strong promotion campaign in order to reach new audiences. This campaign consisted of weekly creative workshops with Bengali female secondary school students and female seniors from the community; an exhibition on body image in the library's café; a research-based symposium; a study day of talks; a free film season; summer drop-in activity sessions for families and children; and a reading list researched by library staff. The campaign was led by a strong visual identity and the programme was mailed to database contacts, displayed at popular venues across London, posters were sent to schools and libraries, and a web-based marketing was used to target young people. In this case, people were guided to TWL website and encouraged to sign up to the monthly email bulletin. In addition, local and national press, radio, and television covered the exhibition.

A more unconventional promotion strategy was described by the English Arts Council (Arts Council England, 2004), where, utilising texting abbreviations used by young people, 55 different SMS messages were sent out to a database of mobile phone numbers that belonged to 18–24 year-olds from the Plymouth area promoting 31 events. 824 people signed up for events, surpassing the original target of 300.

The European Agenda for Culture (European Union, 2014) reported on the ambassadors' programme developed by the Chester Beatty Library in Dublin, Ireland, 'which boasts a collection of works from Asia, the Middle East, North Africa and Europe' (p. 55). The programme consists in attracting representatives of different communities who are given a solid expertise and then offer guided tours of the exhibitions in their own language. This is the same principle used at the Brera Picture Gallery in Milan, Italy, where mediators with an immigrant background 'develop new, shared narratives around museum collections' (p. 54). This approach helps to 'build a bridge between the community and the institution' (p. 53).

These strategies lead to suggesting some ideas around social inclusion. Rankin and Brock (2009) described three programmes for audiences that are 'hard to reach' because of being socially excluded: traveller families, teenage fathers and refugees. The authors highlighted the importance of partnerships to reach out to these groups and develop an appropriate programme for each of them. In terms of what has been said about the democratic value of the 21st-century library, this aspect is especially relevant to

the Latin American and Chilean current context, where lack of adequate policies leaves immigrants in serious social exclusion. Therefore, it would be expected that the LACYL take an active role in reaching out to the immigrant community.

Finally, lack of knowledge prevents people from visiting libraries and other cultural organisations (Colombia. Red Distrital de Bibliotecas Públicas BiblioRed, 2016; Cuenca and Cuenca, 2014). When young people were introduced to cultural expressions that they did not know, their perception of those expressions changed positively and made them consider attending again (Cuenca and Cuenca, 2014). Hence, promotion is essential for engaging new audiences, which is more effective when done through collaboration. Retaining those audiences is responsibility of a strong and participative programme and a dynamic communication.

Evaluation: End and beginning of the process

Evaluation will enable answering the questions that this paper aims to pose: Is the library engaging new audiences? Is the library retaining its audiences? These are permanent questions that have to be addressed throughout the whole process: in the beginning, when the library establishes its objectives and intentions; during the process, when the programme is being developed; and in the end, when the library reassesses the strategies chosen. As Buckingham and Harvey (2001) suggested about their study of youth's perspectives on media production, a deep conceptualisation and understanding of the audience can only take place during the process, when intentions and results are causally related. This brings us back to the Feinberg and Feldman's (1996: 103) proposition on the cyclical planning process:

> Evaluation streamlines all activities of the library, completes the planning process for any one activity, and provides the tools for change and growth in public library services . . . . Without the identification of goals and objectives at the beginning of the process, there can be no meaningful evaluation at the end.

Although this may sound platitudinous for any policymaker, it is relevant for a successful impact in the community. Therefore, the type of evaluation has to be consistent with those objectives. As Rankin and Brock (2009) indicated, measuring the impact a library has in the community is more difficult than collating statistics of performance indicators. For this matter, the authors prompt the concept of social capital and the interpretation of both qualitative and quantitative evidence for monitoring the library provision and the extent to which the library makes a difference in the community.

Pastore (2009: 21) emphasised the fact that museums and libraries are subject to changing times and demands from the community:

> If museums and libraries begin to integrate more with one another and collaborate more with other organizations in the public and private spheres, they may also begin to define themselves and their roles in new ways. [This] would necessitate redefining the impacts and outcomes of their operations. It is essential that as museums and libraries reevaluate their services, their communities, and the ways in which their use is changing in the 21st century; they must also consider how they will measure their progress in addressing these changes and articulating their value to society.

A study on family visits at the British Museum concluded that families are a difficult audience to evaluate and demonstrate effective results, as opposed to school visits that provide easily quantifiable data (Chow, 2013: 312). Besides the complexity of assessing parental views and levels of satisfaction, the study found total lack of consideration of children's perspectives in the museum's occasional internal evaluations of family visits. In light of previous arguments, this is a relevant point to be considered by any children's and youth library in the evaluation process: to what extent are the voices of the direct audience being represented in the programme?

Conclusion

The literature reviewed was highly useful to address the aim of this study. The first section of this article explored the definitions of the 21st-century library, where the concepts of social equity, community engagement and social connection appeared as possibilities for the library to develop. In today's context, where there is an increasing presence of culture participants that demand from organisations that their voices be heard, a community-based library becomes even more important. This type of library entails social and informal learning. Social learning, related to social constructivism, is one in which people learn among others and where language plays an essential role in the mobilisation of knowledge. Rather than a single space, McKenzie et al. (2007; cited in Maddigan and Bloos, 2013) regard the library as a site that supports a variety of relationships; hence mapping the community is one of the most important actions to be taken. Also, in the context of social learning, interactivity and multimodality cannot be excluded from the

library planning discussion due to their capacity for developing multiliteracies, a range of knowledge, skills and practices that the New London Group (1996) defined in order to understand learning in the 21st century. Digitisation has broadened possibilities in terms of informal learning, and most interestingly, as Juncker (2007) proposes, has turned libraries towards a reshaped pre-modern oral culture.

Then the article examined the treatment that young audiences have received in cultural policies. In this regard, the literature recommended considering children as being in the present rather than becoming future adults, as the audience development approach has been doing. In order to acknowledge the presentness of childhood and youth, cultural rights have to be internalised by the library, allowing young audiences 'to take possession of the cultural forms on offer on their own terms and in their own right' (Reason, 2010: 30).

The article continued with an outline of specific recommendations from the literature for engaging and retaining young audiences in the areas of programming, communication, partnerships and promotion of the library. Considering the aim of this review, it was found that promotion is essential for engaging new audiences, which is more effective when done through partnerships. Retaining those audiences is the responsibility of a strong and participative programme and a dynamic communication.

The final section was dedicated to the evaluation process, where the literature recommends measuring the impact of the library services in the community, which is fundamental to streamline all activities of the library and to reflect on the success or failure of programmes.

Aspects related to accessibility and physical space of the library had to be left aside; however, two ideas are worth mentioning at this point. Firstly, the majority of the literature consulted about libraries favours free access for the public to each of its services. In light of the definitions outlined regarding the 21st-century library, the LACYL must take up the role of an expressive cultural democracy, which as Juncker and Balling (2016) proposed, is an arena where heritage and voice are invited to interact. Guarantee of access for every citizen and future citizen, as children and youth are, is the first step in this important role. The following step is to promote cultural rights through a participative programme that invites young people to live and experience culture and reading in terms of their individualities and of their social interactions. Secondly, the physical space of the library should represent the voices that are being invited to participate, as well as the heritage the library promotes and offers to children and youth. As a Latin American library, the LACYL should embed the languages and the cultural differences of the region in its physical space.

Hosting the LACYL means for Chile to set a precedent for Latin American cultural integration and dissemination, and the inclusion of the immigrant communities is just another way to do so. By providing those foreign children and young people access to books and other media that represent their culture and language, the LACYL will create a path towards cultural identity.

Just as the International Youth Library and the Centre for Youth Literature aim both at a young and at an adult/professional audience, the LACYL has the opportunity to develop a cultural and learning centre for children and youth and, at the same time, a research and professional hub for the region. Created by Latin American people for the cultural needs of the region, the library should develop as an original and unique organisation where the voices of young people will be of primary interest.

Nevertheless, the task of engaging young audiences and making them regular visitors to the library is challenging. As it was demonstrated, it requires more than a good programme as well as more than a review of international experiences. A library needs to get to know the community's young people, see what they see, and create with them based on that fresh and juvenile view.

Declaration of Conflicting Interests

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Note

1. There is a lack of consensus in the definitions of these three age groups. The *Convention on the Rights of the Child* (United Nations, 1990) defines a child as any human being below the age of 18. At the same time, United Nations (2012) defines adolescents as the group ranging from 12 to 17 years old and youth from 15 to 24 years old. Young adult is a more complex term, which in

psychology is associated with early adulthood, ranging from 20 to 39 years old (Erikson and Erikson, 1998), but in literary studies young adult literature is aimed to readers aged 14 to 18 years old (Hill, 2014: 8). For the purpose of this study, I will consider the direct audience as a big group that ranges from birth to, approximately, 24 years old.

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Promoting reading in the Arab world: The book club model

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Abstract

Despite their proliferation in many parts of the world, book clubs have received little attention from academic researchers. This study seeks to understand the status of book clubs particularly in the Arab world. An in-depth illustration of the status of Arab book clubs was provided by 18 moderators from six Arab countries. The findings indicated that Arab book clubs operate in several distinctive ways; ranging from formal, highly structured meetings, to informal, friendly gatherings. The findings also revealed the motivations for establishing the book clubs in the Arab world. In this respect, participants set high expectations for personal growth, interpersonal relationships, and social responsibility. However, Arab books clubs faced several challenges as perceived by the participants in this study. Several suggestions were made for the sustainability of Arab book clubs. The implications of the findings for librarians, educators, and the general public are also emphasized to create momentum for their continuity.

Introduction

Since the development of the earliest writing in ancient times, reading has been considered a prestigious and highly-esteemed activity. Examples from around the world reveal the variety in the way reading is celebrated and valued. Research emphasizes that a value-laden activity such as reading is vital beyond mere acquisition of literacy skills, in that living in a democracy poses specific obligations for people who read widely, and think and act in response to their reading (Wolk, 2009).

Yet, a common misconception is that reading is mostly a solitary endeavor. This view of reading contradicts the established concept of reading as a socially determined practice. People have been discussing literature in collective environments for hundreds of years (Sedo, 2003). These gatherings were known as literary salons and were common in many countries around the world, including several Arab countries (Elsayed, 2010). In the present century, group practices that promote reading and discussion of literary works are well known as contemporary book clubs.

Book clubs have been generally described as networks that are composed of people who meet regularly to discuss a book that they have agreed to read at a previous time (Daniels, 2002). Alvarez-Alvarez (2016) summarized the characteristics of book clubs from extant literature as follows: (1) give participants the freedom to join or leave, (2) welcome diversity in age, gender, culture, and education among participants, (3) promote egalitarian and democratic dialogue among participants, and (4) allow for meetings to

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take place at different locations, depending on participants' preferences. The fact that they come in all shapes and sizes means that book clubs are able to cater to a wide array of special reading interests, while further promoting intellectual stimulation and social interaction.

Beyond enjoyment, good books have the potential to bring purposefulness and intellectualism to civic issues (Wolk, 2013), and could lead to the enhancement of social responsibility among members of a reading group (Wolk, 2009). With these benefits of book clubs in mind, it may be logical to assume that they enjoy particular interest among researchers examining sociocultural phenomena. Yet, despite evidence of the proliferation of book clubs in many parts of the world, there exist few studies that document their benefits and potential in community settings in western countries (Clarke et al., 2017), and only one study that examined their status in Arab countries (Elsayed, 2010).

Therefore, the current study aimed to draw an in-depth illustration of the status of book clubs in several Arab countries from the perspective of their moderators. By providing an authentic illustration of the way adult literacy practices unfold in specific social contexts, the study aimed to extend these literacy practices into school libraries and classrooms, while placing particular emphasis on the symbiotic relationship between the personal, interpersonal, and social nature of reading.

The study thus aimed to shed light on the following research questions:

1. What are the characteristics of Arab book clubs?
2. What is the motivation behind joining book clubs in the Arab world?
3. What are the challenges facing Arab book clubs?
4. How can the operation of Arab book clubs be sustained and utilized?

The paper first outlines the context of the current study, followed by the theoretical framework, which documents the diverse nature of reading as a personal, interpersonal, and social endeavor. Further, the paper provides a critical lens for describing the formation of book clubs and their operation based on extant literature. After a description of the methodology, the paper presents the findings of the study and concludes with a thorough discussion of these findings and their implications for librarians, teachers, educators, parents, policy makers, and the general public.

Context of the current study

While enjoying a prominent reputation in western countries since 1989, with more than 50,000 book clubs in the United States for example (Daniels, 2002), book clubs remain largely under-researched and unexamined in many Arab countries. Locating book clubs in these countries was a difficult process, as there was no official platform or database used to document their activities.

It may be important to illustrate the current situation of reading and literacy in Arab counties in order to understand the context of the current study. Several studies have illustrated the decreasing interest of Arabs in reading (Elsayed, 2010; Rajab and Al-Sadi, 2015) and comparisons with other countries in the western world on the average number of hours read per year are all too common. The numbers are surprisingly low, as cultural, political, and financial factors contribute to creating a large gap in reading levels compared with other countries around the world. Another significant factor challenging the readership levels of Arabs is the limited publication of books in proportion to the population (Elsayed, 2010). A modest number of books are published annually, in comparison with other countries, such that a mere 1.1% of worldwide book production may be attributed to Arab authors. A final factor may be associated with the educational systems in many Arab countries. Education remains a teacher-dominated monopoly, and traditional lessons based on memorization and rote-learning remain the norm (Fareh, 2010).

Yet despite this dismal illustration of current reading levels among Arabs, local initiatives within several countries have emerged, including the startup of national reading festivals, reading groups and forums, campaigns for encouraging reading, and of course book clubs (Elsayed, 2010). However, there is dearth of studies that document the formation of book clubs, their characteristics, and their impact. The purpose of the current study was, therefore, to understand the current situation of several book clubs located in six Arab countries from the perspective of their moderators, in order to contribute to the literature base on worldwide book clubs, and provide specific recommendations for enhancing the proliferation of book clubs into other social settings, including schools and universities.

The personal, interpersonal, and social nature of reading

Book clubs are considered intellectual forums that offer their members the opportunity to participate in productive learning experiences. The personal goals

for these clubs include the examination of individual knowledge, beliefs, feelings, and reactions (Burbank et al., 2010). Book clubs further foster "pleasurable reading" for adults, an activity that was likely missing in their previous school contexts (Nichols-Besel et al., 2018: 19). Whether narrative or expository in nature, books support learning as they present a different view of the world through the lens of the author, challenge readers to expand on their world views, and communicate complex issues in ways accessible to all readers (Dunne and Goode, 2004). Nichols-Besel et al. (2018: 20) emphasize the freedom book clubs afford their participants, in that they afford a "relatively safe niche" in which adults feel free to experiment with different ways of doing discussions, and "a climate of acceptance" in which they can experience the welcoming of other readers like themselves.

More importantly, readers are able to share their learning experiences with others, which creates bonds of community among members (Sedo, 2003). Adding this social aspect to the individual experience, the interpretations generated from reading are enhanced by each member's contributions to the discussion (Foasberg, 2012). Researchers have termed such discussions as "unique, situated literacy practices" (Dail et al., 2009: 52) or "interpretive communities" (Sedo, 2003: 68) that are influenced by and continue to influence individuals' meaning-making processes. Myers (1992: 298) emphasizes the importance of negotiating meanings "about the self, others and shared worlds of interest" as opportunities provided through the social context of book clubs. Such literacy practices define the form and function of literate action in each context of use, because participants have socially constructed a shared meaning for the activity and the context.

Several researchers further argue that such discussions can become motivators for social change (Sedo, 2003). Specifically in such times of political, social, and economic change, it may be necessary for people to engage in deep conversations about critical issues that impact their world. However, it may seem that communication is often stuck in a place where people either take sides, make accusations, or keep silent due to fear or the belief that talking about these issues will not help (Dunne and Goode, 2004). Therefore, researchers have highlighted that when particular books are discussed collectively, like-minded readers are given the opportunity to engage in important civic discourse that enriches their perspectives and motivates them to take action (Wolk, 2009).

Productive book clubs

Several studies have indicated a number of practices that contribute to creating a productive book club context. In a study of two adult book clubs, Beach and Yussen (2011) found that selecting books collaboratively, sharing knowledge and expertise, and developing topics in some depth are practices that contribute to productive book clubs. Furthermore, egalitarian and collaborative discussions are considered important (Addington, 2001). Readers capitalize on each other's knowledge and share ideas knowing that their responses will differ, yet believing in the value of such multifaceted interpretations (Childress and Friedkin, 2012).

In many book clubs, moderators play an active role in leading the book club, setting the rules, and coordinating the activities of members. In this case, the book club is governed by specific rules that "serve a community-building function" (Foasberg, 2012: 35). Beach and Yussen (2011) caution, however, that the facilitators should not dominate the discussion, as there should remain a high level of member participation. Further, Long (2003) highlights the freedom readers enjoy in informal book club settings, such that consensus in perspectives is not a requirement. Quite the contrary, a modification of perspective often signals an enjoyable book club experience.

In terms of the logistics for sustaining a book club, Onukaogu (1999) recommended attending to the issues of funding, supplying the club with relevant materials, and using innovative methods to maintain interest. Accordingly, non-governmental organizations concerned with literacy promotion in any country should join efforts to promote the proliferation of book clubs in schools, universities, workplaces, and libraries.

Beyond the book club meetings, an important sign of its productivity lies in the ability of its members to develop new literacy practices (Dail et al., 2009), such that the benefits of book clubs go beyond its members to influence their families, friends, and co-workers as they engage in discussions around literature. Consequently, a culture of reading is infused within a society, which ought to be an aspiration to those interested in securing a well-informed citizenship (Wolk, 2009).

Methods
Research design

In this study, a qualitative research design was used to collect data from book club moderators in multiple Arab contexts. Twelve semi-structured interviews and six email correspondences were conducted to explore

the characteristics of these clubs, as well as the perceived challenges and opportunities. A review of the clubs' social media accounts and website was also conducted, as requested by the book clubs' moderators. The ability to recruit 18 moderators from six different countries provided variety to the study findings, despite the limitation of gathering data from a single source.

In fact, the semi-structured interview approach was chosen as appropriate data collection tool, as it facilitated in-depth perceptions to be captured, while allowing for further probing and questioning (Willis, 2007). The open-ended, descriptive nature of the questions were designed to elicit participants' insight and experiences with establishing book clubs. The study was thus positioned in the multiple case study approach as it focused on how book club moderators interpreted their experiences and constructed meanings from them within the contexts in which the book clubs were embedded (Creswell, 2014).

During the interview, five major domains were covered: (1) background information, (2) procedure followed during initial startup, (3) challenges faced, (4) strategies to overcome challenges, and (5) recommendations. The interviews lasted 30–45 minutes each and were conducted in Arabic, the native language of all the participants. To ensure accurate analysis of the data collected, the interviews were audio-recoded and transcribed. Using the constant comparative method (Miles and Huberman, 1994), segments from the interviews were selected and placed into categories and subcategories based on the research questions. This process was conducted independently by the two researchers. Following this phase, the results were shared and compared until consensus was reached. The translation of segments into English was done only when the segment was used in the current paper to avoid any loss of meaning during the analysis phase.

Participants and membership

The initial target of the study was to include book club moderators from multiple Arab countries, which share a common exposure to books written by and for Arabic-speaking citizens. Due to a lack of information about existing book clubs, selection depended on those participants who were able to recruit further participants.

Participants were selected using a purposive sampling technique, which included a deliberate choice of informants based upon their qualities or knowledge about the topic (Bernard, 2002). Using this technique, a set number of participants were not chosen a priori;

Table 1. General information on Arab book clubs.

Name of participant	Number of members	Gender of members	Number of years
Hala	15	Female	3
Fida	27	Mixed	5
Nadine	16	Mixed	11
Amani	10	Mixed	7
Hiyam	35	Female	3
Wassim	12	Mixed	10
Nouran	4	Female	1
Dima	12	Mixed	8
Mariam	7	Female	6
Amal	20–30	Female	7
Katia	7–9	Mixed	2
Amani	460	Mixed	2
Bilal	20–50	Mixed	5
Ahmed	16	Mixed	7
Tasnim	45	Mixed	5
Joury	170	Mixed	5
Asmaa	8	Mixed	4
Nihal	105	Mixed	8

*All names are pseudonyms

rather they were selected based on their knowledge and experience with book clubs. Having located a few respondents, participants were asked to suggest other book club moderators using the snowball approach. Initially, a total of 25 invitations were sent via email to moderators of book clubs. A total of 18 moderators agreed to participate; 10 participants were interviewed by phone, two participants were interviewed face to face, while six participants answered the interview questions in written form via email correspondence. Table 1 includes details of the participants in this study.

Among the 18 participants, 15 were female and 3 were male. Participants were from Kuwait (N = 5), Qatar (N = 4), Jordan (N = 4), Bahrain (N = 2), Palestine (N = 2), and Egypt (N = 1). Each moderator had established the book club according to personal expertise and societal needs (e.g. some countries allowed for mixed-gender reading groups, such as Jordan and Egypt, while others did not favor such gatherings, such as Qatar). The book club members were either mixed in gender, or female only, and the number of years that the book clubs had been operating ranged between one and 11 years. The number of years represents the date of establishment, and is not an indicator of the book club's success. One moderator was retired, while the rest were working. All members were volunteers, receiving no financial benefits for their participation. Only four of the clubs examined received external support in the form of financial

provisions and vouchers for buying gifts and books from a publishing agency.

Results

In the following sections, the findings of the study are presented according to the research questions.

Characteristics of Arab book clubs

The book clubs examined varied considerably. Three themes emerged from the way the moderators described their clubs.

The first theme included the variation of clubs from *informal gatherings to structured discussions*. Informal clubs typically included members who were either good friends or family members. These clubs were founded upon "a simple idea of a group of people getting together to share similar interests and encourage each another to read more consistently than they would individually" (Nouran, Participant 9). Wassim stressed the importance of unstructured and informal meetings in order to "expand the readership levels, encourage members to attend, and create a relaxing atmosphere for members to share their ideas freely." Hala further emphasized the importance of creating a friendly atmosphere away from the stressors of life and work, such that "members met at different places each time and discussed the books they had read, but only after interacting socially about various personal topics."

By contrast, the structured book clubs embedded an organizational hierarchy, within which members were assigned different levels of authority. An example of such structure was described by Fida, Amani, and Dima as including a president, vice president, financial committee, activities committee, and social media committee. Each member became responsible for particular tasks, such that the president moderated the monthly meetings by first introducing the books, and the guests when available, then allowed 3–5 minutes for members to present their ideas on the book and share their comments. Another example was discussed by Katia, as she described the way members were to read their books, and then sit for a computer-based test, "to determine the level of understanding and consequently obtain a certificate based on their performance and which indicates they have completed the books successfully."

A second theme included the variation of clubs from *registered members to open membership*. In the majority of book clubs, a specified number of registered members were allowed to take part in discussions. For example, Amani explained the process of registration and renewal of membership on a yearly basis as a prerequisite to attending meetings. She further explained: "New members have to abide with the club's code of conduct, and this includes attending all meetings, participating actively during discussions, and maintaining a respectful attitude towards other members."

By contrast, Wassim described an open membership policy, inviting anyone to join the discussions, whether that person had read the book or not. In this respect, Wassim classified the members who had previously participated in the book club meetings into three types:

> Committed members who were dedicated to the concept of book clubbing as a way to enhance their motivation to read, selective members who only participated when particular books were being discussed, and sporadic members who attended a few times but did not commit to the idea and thus discontinued their membership.

A third theme characterizing book clubs included the variation in assigning *one common book to multiple books to a series of books with a common theme*. The majority of book clubs agreed on reading a particular book that all members discussed. The selection was mostly democratic in that members suggested and then voted on the book to be read. In the book club moderated by Fida, members agreed to read multiple books according to personal taste. There was no restriction on the topics or genres that members could choose. During meetings, she explained that "members were allowed 10 minutes to summarize the book, discuss important issues, and present beneficial ideas." A final variation included restricting members to a series of books with a common theme and which led, according to Katia, "to raising awareness on topics related to living a healthy and productive lifestyle."

Motivations for establishing book clubs

Participants in this study were particularly aware of the reasons that prompted them to establish their book clubs. Such motivations could be grouped into three categories including: *enhancing personal growth*, *developing interpersonal relationships*, and *promoting social responsibility*.

First, several participants expressed their beliefs in the advantages of book clubs in enhancing personal growth. These advantages included the following: provide members with the incentive to read consistently throughout the year, widen their understanding through the exposure to multiple meanings from different perspectives, improve their ability to argue and negotiate their ideas openly and freely, acquire new

information that could be invested in work and life situations, feel satisfaction and a sense of fulfillment, and become mature, lifelong readers. Notably, book club moderators highlighted that book clubs developed leadership skills in leading the club and the discussion. Amani, Nouran, and Dima had undertaken training before starting their groups, which helped them in team building and managing the club more effectively. Amal highlighted the importance of training volunteers to develop their performance and attract more members. Amani also stressed the importance of workshops in developing members' critical reading and reflection abilities.

A second theme in this category included the development of interpersonal relationships as an important motivation for establishing book clubs. Most participants believed their meetings created "a sense of community among the members" (Nadine, Participant 3), as they engaged in meaningful conversations, compared their opinion, and valued the contributions of others. For example, Wassim stressed the need "to share ideas with others who are involved in similar interests and have the same passion for reading." To strengthen their interpersonal relationships, members were further engaged in activities beyond the monthly book club meetings. For example, Fida described "visiting hospitals and reading to children, as well as travelling as a team to other Arab countries and visiting cultural sites." She believed these activities created a stronger sense of community among the members.

A final subcategory in this section consisted of participants' beliefs in the necessity of book clubs in promoting social responsibility. Most of the participants explained that they chose books that resonated with vital themes and issues that were central to their societies. They used the books as vehicles "to inquire into important ideas that were of particular concern at the time of reading" (Asmaa, Participant 17). For example, Bilal considered "the choice of books should be closely related to existing social phenomenon, so the book club meetings can encourage discussions on critical issues and allow for exchanging experiences and thoughts on these issues."

The theme of social responsibility was manifested in yet another way. Several participants emphasized their commitment towards raising social awareness of the importance of reading within their countries and beyond. For example, Fida stated that her goal was "to encourage the establishment of book clubs across the country," while Ahmed believed his responsibility was towards "raising awareness and improving readership levels among Arabs," beginning within his surrounding community. Though on a small scale, the book club was Hala's way "to plant the seeds of commitment towards reading for generations to come."

Potential challenges and suggested solutions for sustaining Arab book clubs

Despite their motivation and commitment to their book clubs, participants discussed several challenges that hindered their activities. These challenges may be grouped into five main categories: (1) choosing and locating books, (2) commitment, (3) recruiting and training volunteers, (4) financial support, and (5) cultural acceptance.

Despite such challenges, several suggestions were put forward by the moderators for sustaining book clubs in the Arab world. These suggested solutions included five main categories corresponding to most of the challenges faced, and including: (1) a democratic process for operating the book club, (2) maintaining the purpose of pleasure in reading, (3) the avoidance of political and religious books, (4) executing innovative ideas, and (5) being present on social media.

These challenges and suggested solutions are summarized in Table 2 in order to provide a succinct, yet thorough illustration of the operation of book clubs in several Arab countries. To represent participants' voices and opinions, sample quotations from the interview data are further provided.

Discussion

The purpose of this study was to investigate the status of book clubs in several Arab countries from the perceptions of their moderators. Through the use of an in-depth interview procedure, the study resulted in descriptions of book club operation patterns, motivations for joining these clubs, challenges faced, and the solutions necessary for sustainability. While this study examined adults and an out-of-school literacy, our work has implications for school libraries, classrooms, and universities. An understanding of the book club model, as well as the resulting adult literacy practices, can provide an authentic illustration for moving this model into libraries, schools, and universities, while emphasizing the symbiotic relationship between the personal, interpersonal, and social nature of reading, as confirmed through the findings of the current study.

The book clubs in this study took several forms and varied in the way they operated. Such variation depended on the moderators' knowledge, background, and their understanding of societal needs and interests. In fact, such determination to operate the book clubs, despite the obstacles mentioned earlier,

Table 2. Challenges facing book clubs and suggestions for sustainability.

Potential challenges	Suggested solutions	Sample quotations
1. Choosing and locating books: – Difficulty choosing books that all members are interested in reading. – Difficulty finding the selected books available at local libraries and book stores.	1. Democratic process for operating the book club: – Engagement of members in choosing the books enhances commitment. – Moderator should enjoy a flexible and charismatic character, be able to solve problems and choose among alternatives. – Moderator should be well-cultured and understand the value of particular books in improving society.	Fida: We tried many different ways to choose the books, so that all the members would be satisfied and stay committed. But people have different tastes and personalities, it is hard to cater to all their interests. Amani: There must be democracy, the moderator can't impose his opinion on the members. He should be flexible and have the ability to convince them to attend all events.
2. Commitment: – High levels of enthusiasm commonly followed by decreasing commitment to readings and meetings. – Unpreparedness for discussions due to lack of commitment to reading the entire book. – Work and family commitments prohibiting consistent attendance to meetings.	2. Maintaining the purpose of pleasure in reading: – Members should explore reading in a fun and spontaneous way. – Rules should be kept to a minimum to avoid burden and stress on members. – Members should seek literary enrichment, away from religious and political conflicts entrenched in their everyday lives.	Bilal: The most difficult challenge among Arabs is that they get excited about new ideas, but then quickly lose interest. Hala: I don't like rules, I think there are too many rules already in life. I like to keep the book club spontaneous and fun, and it should be in different places for the change of atmosphere.
3. Recruiting and training volunteers: – Few volunteers willing to dedicate time to specific tasks and activities. – No guarantees that the volunteers would continue their support for a sufficient time. – Difficulty recruiting volunteers with certain skills, such as design and media skills.	3. Providing training opportunities – Inviting friends and relatives during the initial stages. – Providing training to members on how engage in discussions, manage events, and maintain social media postings.	Asmaa: At the beginning, I couldn't find members very easily. I spoke to my friends and family just to get started . . . But then, it was finding people who can do the other kind of work, like posting our discussions on Facebook, or organizing some of the activities.
4. Financial support: – No funding agencies supporting the book club set up and operation. – Inability to organize different activities due to unavailability of funding.	4. Executing innovative ideas: – Arab readers described as requiring constant change in order to sustain their engagement and avoid boredom. – Book club activities should be expanded to include various clubs, such as cinema and photography clubs, among others.	Nouran: The financial issue was our most difficult challenge, because any idea you come up with, you need financial support, and that is something we didn't have. Joury: We are here to attract all people, from different sectors, religions, and political parties, so we should avoid these religious and political conflicts, and discuss our different views in a friendly atmosphere.

Table 2. (continued)

Potential challenges	Suggested solutions	Sample quotations
	– Book club activities should be varied, including book exchange day, author visits, and booths at exhibitions. – These ideas have the ability to hook reluctant readers and create a sense of belonging to the book club.	
5. Cultural acceptance: – Book clubs considered a relatively new phenomenon. – Difficulty convincing members to join and take the meetings seriously. – Concern for the exclusivity of book clubs for academic members of society. – Lack of cultural acceptance due to low reading levels among the general public.	5. Be present on social media: – Presence on social media believed to create publicity and encourage new members to join. – Sharing the activities of the book club on social media brings the idea closer to people.	Wassim: It was a strange idea for them. People think of clubs as being for sports or for children, not for books. When they saw us in a café discussing a book, it wasn't familiar to most people. Nihal: Our presence on social media was a big help, we were able to attract many people this way, they read what we do and share with others. So in small steps, it became widely accepted and familiar to them.

may be considered an indication of their commitment towards meeting such social needs, including the development of members' expertise in various aspects through the provision of training opportunities in design, management, and communication skills.

The 18 clubs can be placed on a continuum ranging between informal gatherings to highly structured discussions. They also differed in regards to their membership standards. While the majority of book clubs accepted only registered members to attend the discussions, other clubs were more open in nature, and allowed a diverse audience to attend. The choice of restricted versus open membership may be attributed to the objectives these members pursued from their discussions. Perhaps a restricted membership pursued an in-depth discussion, where members were to contribute actively and experience changes to their initial perspectives of the book. These choices may have been affected by local expectations in each country. For example, a conservative culture may require that the female moderator invite known participants or family members only.

By contrast, a more open membership setup pursued a more welcoming and encouraging space for readers and non-readers with the intent of spreading a culture of reading within the cultural context where the discussions took place. In this respect, several moderators avoided political and religious themes, in order to attract participants who may not feel comfortable discussing such topics. Such avoidance strategies may be attributed to the level of risk-taking these moderators are willing to take and expect their members to approve of (Myers, 1992; Zaleski et al., 1999).

Another finding regarding the setup of the book club included the decision to read a single book, multiple books, or a series of books related to a single theme. Such decisions impacted the group discussions and the meaning-making processes permitted, as certain literary practices may have been restricted while others encouraged. In the case that one book was discussed, members were able to engage in deep discussions and develop new personal understandings, while in the case that multiple books were discussed, members were given the opportunity to dominate the discussion and impose their individual understandings of the work. The third option may have been the most restrictive, as members were obliged to commit to a certain theme and then sit for an examination. Despite such variation, the voluntary nature of the book club membership in all three cases permits the conclusion that different readers prefer different structures, and when such preferences are compatible with a certain structure, their commitment to the book club will be stronger.

The results of the current study are in line with Alvarez-Alvarez (2016) who reported on the way book clubs may operate in several different ways. In fact, Beach and Yussen (2011) encouraged the development of a unique social space for like-minded readers to engage in reading, interact, and share ideas.

Such social spaces cannot be dictated, but rather develop naturally based on the individual preferences of the members and the group dynamics that develops among them.

Despite these similarities, the findings seem to contradict the more common informal structure of book clubs in western countries. Researchers have underscored the democratic operation of books clubs, most commonly in the absence of a moderator figure, and where the discussions are characterized as being both egalitarian and collaborative (Beach and Yussen, 2011). Perhaps the prominence of the moderators' role in most of the Arab book clubs examined in this study emphasizes their commitment towards the sustainability of their clubs, specifically as many of them had been newly established.

In terms of readers' motivations for creating and maintaining book clubs, participants emphasized the reasons of enhancing their personal and intellectual growth, developing caring and strong interpersonal relationships, and promoting a dedication towards social responsibility. These three themes lie at the heart of productive book clubs as described in previous studies (Addington, 2001; Beach and Yussen, 2011; Wolk, 2013).

On an individual level, participants were aware of the gains of reading as personal growth, learning, and satisfaction. As a form of intrinsic motivation, such awareness may continue to encourage members of the book clubs to persevere in their participation. Ryan and Deci (2000) have shown that individuals who are intrinsically motivated show greater persistence and put more effort into the tasks through their own volition.

It may also be argued that this intrinsic motivation can be consolidated when members experience enjoyment from reading as a joint activity. That is, as members engage in communicating their inner thoughts, beliefs, and attitudes, they are in turn creating social bonds, even when the discussions are imbued with conflicts and controversial issues (Alvarez-Alvarez, 2016). A sense of belonging and community is believed to form, which may contribute to the commitment of members towards the book club, and hence influence its longevity (Sedo, 2003). Such practices may further contribute to changing cultural perceptions towards reading in this region of the world, specifically when book clubs become social norms, rather than remain in the shadows of anonymity.

A final motivation for joining book clubs was connected to social responsibility. With economic, political, and social conflicts affecting most Arab countries, the book club model may provide a democratic platform for discussing books that are deeply concerned with current affairs. Such platforms are important for discussing problems, acknowledging different perspectives, and brainstorming solutions, rather than reaching consensus. In this respect, the moderators played an active role in raising awareness of such problems, most prominently by intentionally selecting books that provided new perspectives on social issues. Such social responsibility was further supported through the organization of different activities that engaged the surrounding community, including reading to older people, organizing conferences, and connecting with other book clubs.

This idea of cultivating civic habits of mind has been discussed in the literature (Wolk, 2013). The civic issues that are of interest to the reader are situated in books that are enjoyable, relevant, and interesting, and thus open up endless opportunities for readers to engage in meaningful dialogue and debate issues that matter in their societies (Wolk, 2013). Readers thus become better informed members of society, actively participating in making changes within their own lives, and their societies.

Though the book clubs examined in the current study differed on several aspects, they seemed to share common challenges that should be acknowledged and consequently avoided. These challenges included finding and choosing suitable books, recruiting and training volunteers, committing to the book club, securing financial support, and lastly, promoting cultural acceptance from members of this particular social context.

Despite the fact that these findings are similar to those discussed in other studies (Elsayed, 2010; Onukaogu, 1999), some of the suggestions proposed by the moderators may provide the means for moving beyond these challenges within their particular settings. For example, the necessity of choosing books ahead of time through a democratic process, keeping rules to a minimum and maintaining the purpose of pleasure in reading, encouraging members to join by executing innovative ideas, and finally following current trends of using social media to publicize the activities of the book club can be considered effective ways to promote book clubs in a cultural context claimed to attain low levels of reading.

Implications and conclusion

The results of the current study provide a thorough description of book club practices in Arab countries, at a time when many governmental initiatives have been launched aiming to increase readership levels in these contexts. The results show implications for

librarians and educators, policy makers, and the general public in Arab countries.

From an educational standpoint, it can be argued that schools should prepare learners for the real world, help them acquire the new literacies of the 21st century, and engage them within their social contexts as informed citizens. Anderson and Gunderson (1997) argue that educators must be aware of the variety of literacy activities that occur both within the school context and those that occur outside of schools, in order to understand how each contributes to literacy development. Most importantly, teachers should capitalize on literacy relationships beyond the school context, as the involvement in these social relationships will become a major part of adulthood.

As a model of authentic adult reading, educators may bring book clubs into the school and university context. This model may be modified to fit the busy schedules of Arab learners, who are mostly taught through memorization and rote learning methods. In essence it should include a democratic process of book selection, a certain period of time given to reading the book, followed by a subsequent meeting for discussion and interpretation with all members contributing almost equally. This may further provide Arab educators in various fields a student-centered model for enhancing learners' interests in engaging in civic responsibility by reading about issues that concern their social contexts, thinking critically about these issues together, and finally taking action. Moreover, bringing the book clubs model into schools may highlight the importance of reading as a tool for continuous learning, thus bridging the gap between adolescence and adulthood (Polleck, 2010), improving family literacy (Dejong and Burton, 2013), and inviting reluctant readers (Ambe, 2007).

Book clubs can be offered in schools, universities, and public libraries in different forms including readings groups that engage teachers and students, teachers and parents, as well as students among themselves. School and university librarians may play an active role in recommending books that attract a wide audience and increase readership. By attending these reading discussions, librarians and teachers may develop new spaces, even changing the setting in the library or classroom according to a book's theme, such that the purpose for reading becomes that of enjoyment and pleasure (Myers, 1992).

From a different perspective, creating a nation of readers has been a topic discussed by policymakers and educators in the Arab world. Though small-scale by nature, book clubs can be one of the ways that reading can be encouraged within the general public.

The enjoyment of reading in groups can become contagious with the right kind of support, whether financial or logistical. Though it may be important that policy mandates encourage the proliferation of reading among the citizens in these countries, what is more important is diagnosing the presence of the necessary infrastructure that would put those policies into practice. One important condition is the availability of books distributed in several ways; some in libraries and others in different places where people have easy access to them.

Research on the most effective ways to promote this enjoyment of reading and creating life-long readers in Arab countries is further needed. Additionally, research in the form of case studies conducted in each of the participating countries may further reveal the nuisances of moderating a book club, including the socio-cultural factors that may either facilitate or hinder its longevity. More specifically, research on the influence of these book clubs on members' commitment to reading as a personal, interpersonal, and social endeavor may provide useful insight for promoting this authentic model of adult literacy in different contexts.

On a final note, the current study has provided valuable insight into the status of Arab book clubs with the aim of highlighting a constructive illustration of reading in this part of the world, and that perhaps contradicts the common conception of poor reading levels. An important goal should thus be to encourage and support reading among adults and adolescents through the book club model, among other reading initiatives in Arab countries.

10. We all read: https://twitter.com/weallread?
11. Al Qada Bookclub: https://www.instagram.com/alqada_book/
12. Aamaq: https://www.instagram.com/nadiaamaq/

Declaration of conflicting interests

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Research data management and sharing among researchers in Arab universities: An exploratory study

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Abstract

This study investigates researchers' current practices for managing and sharing research data. An online survey was conducted among researchers from three Arab universities in Egypt, Jordan, and Saudi Arabia. In total, 337 participants filled out the questionnaire. The study shows that 97% of researchers were responsible for their research data, and 64.4% of researchers shared their data. Contributing to scientific progress and increasing research citations and visibility were the key factors that motivated researchers to share data. However, confidentiality and data misuse were the main concerns among those who were reluctant to share. Finally, some recommendations regarding the improvement of data management and sharing practices are presented.

Introduction

The scientific community has witnessed a significant shift towards open science, which prioritizes collaboration and open access in scientific research. Research data management and sharing have become critical because of their valuable role in enhancing science through building on previous works by reusing data produced by other researchers. As mentioned by Tenopir et al. (2011: 1), 'research data is the infrastructure of science'.

Research data includes every piece of data acquired and generated during the research process, and may comprise, among others, text, spreadsheets, questionnaires, photographs, films, test responses, slides, laboratory notes, statistics, observations, results of experiments, measurements, samples, algorithms, scripts, and workflows. It can be defined as 'any information, in particular facts or numbers, collected to be examined and considered as a basis for reasoning, discussion, or calculation' (Directorate-General for Research & Innovation, 2016: 3).

Data sharing is not a new phenomenon in scholarly communication. It refers to the movement towards a new data publishing and exchange model that began in the 1960s. An example is the UK Data Archive (2017), which was launched in 1967 as the Social Science Research Council Data Bank, to solve the problem of sharing information and data generated by social and economic surveys, by capturing these data and make them available to researchers. The mid-1970s witnessed the rising of data banks, especially in the field of health science; a distinctive model of this decade is the GenBank (Cinkosky et al., 1991) database which was established in 1979 by Walter Goad in Los Alamos to provide open access among biologists to DNA sequence data on a daily

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basis, and today some genetics journals require researchers to submit the DNA sequences they reference in GenBank. Concurrently, a conference for sharing social science research data was held by the Committee on National Statistics in which participants presented many recommendations in order to make their data accessible for other researchers (Fienberg et al., 1985).

During the 1980s, the concept of sharing research data with external researchers seemed risky because of the fear of data theft or scooping, but this situation changed by the 1990s. For example, the US Long-Term Ecological Research Network site had data-sharing policies in 1993 and its data catalog was publicly available online, which consisted of only a summary description of data sets (Porter, 2010).

Recently, there has been a growing awareness of the management and reuse of research data, due to the shift from open access to scientific publications alone to open access to both publications and research data. In March 2001, during the OECD Committee on Scientific and Technology Policy meeting, scientists from the Netherlands recommended that a working group on issues of access to digital forms of research data be established (Arzberger et al., 2004). At the same time, funding bodies encouraged researchers to openly publish their data. For example, the National Institutes of Health added a data management plan requirement in 2003 for grants over $500,000 (Borgman, 2012). Also, the European Commission launched the Open Research Data Pilot initiative in 2015 to have scientific publications and research data in projects supported by the European Research Council under Horizon 2020 freely accessible for reuse (OpenAIRE2020 project, 2016).

Many articles assert that studies which make their data available receive more citations than similar studies that do not (Piwowar and Vision, 2013: 2). Therefore, some higher impact journals implemented data-sharing policies and required data sharing as a fundamental part of the publication of articles (Vasilevsky et al., 2017). In May 2013, the Nature Publishing Group (2013) implemented a checklist for life science articles that included data deposition in a public repository.

The new technological context has promoted a culture of research data sharing, as a large number of online platforms have been designed as open science tools to publish and share all types of scientific research output, including data sets. One example is the evolution of research data repositories of many types: institutional, single-discipline, and multidisciplinary. Until April 2016, the most comprehensive web registry of data repositories, 're3data.org', indexed 1500 repositories, the majority of which are from non-profit institutions (Pampel, 2016). Academic social networks constitute another example; these networks are specialized platforms designed for researchers, aimed at the communication, dissemination, and exchange of science-related information among the members involved (Elsayed, 2016).

Scientific research in Arab States

Governmental bodies, especially higher education institutions, are at the forefront of scientific research in the Arab world. However, this scientific research faces many challenges (Zou'bi et al., 2015). First, there is a lack of focus with respect to research priorities and strategies. Second, funding is insufficient to meet research goals, with the Arab world contributing just 1% of global spending on research and development (R&D) in 2013, and with scientific research expenditures representing 0.2–0.4% of the national gross domestic product (GDP). Other challenges include a lack of awareness of the importance of good scientific research, inadequate networking, limited collaborative efforts and brain drain.

In 2014, the Arab Strategy for Science, Technology and Innovation (ALECSO, 2016) was approved at the 14th Congress of Ministers of Higher Education and Scientific Research in the Arab World in Riyadh (Saudi Arabia). It is believed that this strategy will play a pivotal role in economic and social development in Arab countries. The strategy aims to build scientific research capacity, encourage scientific cooperation regionally and internationally, and set up a network of science centers of excellence. It intends to turn universities in Arab countries into regional hubs that will facilitate cooperation through joint research projects. However, the strategy does not include any initiatives for how to facilitate the management and sharing of research data among researchers in Arab states.

For the last 25 years, the need to share research data has been recognized as an urgent problem (Borgman, 2012). However, several Arab scientific research efforts, such as the Arab Strategy for Scientific and Technical Research and Innovation (ALECSO, 2016); the National Policy and Strategy for Science, Technology and Innovation 2013–2017 in Jordan (Higher Council for Science & Technology, 2013); the Science, Technology & Innovation Policy in the United Arab Emirates (United Arab Emirates Government, 2015); the National Strategy for Science, Technology and Innovation 2015–2030 in Egypt (Ministry of Higher Education and Scientific Research, Egypt, 2015), have limited their discussion

to how to benefit from research outputs such as patents, theses, and published articles, and how researchers in Arab states can exchange published research outputs. They have not yet discussed the topic of unpublished data sets or raw data.

Despite the foregoing, there is light at the end of the tunnel. First, there is the Research Output Management through Open Access Institutional Repositories in Palestinian Higher Education (ROMOR) (2016), a recently funded research project that was launched in 2016 under the auspices of the European Union's Erasmus Plus program. The current phase of the project involves a research data pilot study to assess research data and output management at the managerial levels of Palestine's higher education institutions. Second, two Arab data repositories were listed in 're3data.org' – the first being a government data repository in Egypt named Egypt's information portal, and the second being Open data for Africa in Tunisia.

The present study is important in that is it is the first Arab study designed to explore not only researchers' current practices for managing and sharing research data in Arab universities, but also the obstacles these researchers have encountered. This study will contribute to current knowledge about research data management and sharing and will support the future strategic development of Arab higher education institutions and research centers' research data.

Literature review

During the past few years, much literature on research data has been devoted to its definition, benefits and barriers, the role of the university library, training, cataloging and technical issues, management, repositories, policies and guidelines, infrastructure, and services. The present study will discuss only the literature concerning researchers' practices and perceptions about data management and sharing. The objective of this review is to provide background information about the topic and point out shortcomings in the literature.

Many studies have investigated researchers' attitudes regarding research data management and sharing. For example, a survey of 6958 research initiatives in the humanities and social sciences submitted by Canadian researchers found that researchers actively shared data, but only 18.7% planned to archive their research data in a repository (Perry, 2008). Another study by Griffiths (2009) analyzed a report produced by the Research Information Network and indicated that, although researchers archived data in a haphazard manner on their computers or on transportable

storage media, with no idea of what will happen to them in the future, there was a tradition of sharing data.

Along the same lines, Cragin et al. (2010) interviewed a sample of 20 scientists across 12 different fields from two large research universities who had an interest in data management and sharing. They reported that participants generally had positive views of data sharing and expressed openness to sharing their own data, particularly with people in their field. But 60% of them identified a need to restrict some or all of their data from public access for any length of time. A similar study by Tenopir et al. (2011) surveyed a total of 1329 scientists from America, Europe, and Asia, and revealed that 85% of them were interested in using other researchers' datasets; 46% reported that they did not make their data electronically available to others. This finding implies that there is a gap between what scientists say they want and their actual practices. Another survey done by Schöpfel and Prost (2016), which investigated 270 researchers in the social sciences and humanities at the University of Lille (France), pointed out that most of the respondents (83%) preferred local solutions for storing their research data, and that most of the respondents (64%) did not share their research data with colleagues or others.

To understand researchers' data-sharing practices, Youngseek and Jeffery (2012) conducted 25 interviews among science, technology, engineering, and mathematics (STEM) researchers at three research universities in the Eastern US. The results showed that most researchers reported internal data sharing within their research teams or among collaborators, and about half of the interviewees chose altruism as the factor most influencing data sharing. A study by Parsons et al. (2013), aiming to gather 366 researchers' requirements to create research data management infrastructures at the University of Nottingham, showed that only 13% said that they would deposit their research data in a public repository. Another study by Kvale (2014), which explored researchers' attitudes and experiences with data sharing at the Norwegian University of Life Science, concluded that the processes of data sharing was far from optimal because researchers primarily retrieved data from colleagues and a collegial network. Also, the study by Van den Eynden and Bishop (2014), which interviewed 22 researchers from five European countries, revealed that data sharing was seen by most researchers as part of the normal scientific process. Of the same opinion, Koopman and De Jager (2016) revealed that some researchers already archived their digital data in repositories and that 88% of the 163

participants believed that their data should be made available for future research.

Research data can be shared in multiple ways. Ferguson (2014) found that more than half of interviewed researchers used various methods to share their data publicly, notably via supplementary material in journals. Journal requirements were the primary factor motivating them to allow public access to their data. Another study by Youngseek and Jeffery (2016) found that regulative pressure by journals, normative pressure at a discipline level, and perceived career benefits and scholarly altruism at an individual level had significant positive relationships with data-sharing behaviors.

Despite the positive attitude towards sharing research data, there are considerable reservations. An early study by Martinez-Uribe (2007) in which 37 researchers from Oxford were interviewed concluded that few of them had deposited any data in domain-specific data archives; rather, researchers preferred to use their departmental website. The top three requirements expressed by them were: having a secure and user-friendly solution, a sustainable infrastructure, and advice on practical issues related to managing data across its life cycle. Cheah et al. (2015) conducted 15 interviews and three focus group discussions. They identified potential harms to research participants or their communities and the researchers themselves as the most important reservations when sharing data. In addition, the study by Jao et al. (2015) indicated that health researchers in Kenya worried about the risks of harm for study participants and misuse of data. A survey conducted at Virginia Tech found that 57% of researchers considered their data to have long-term value but concluded that there was a significant gap between the rather limited sharing activities and the positive perception of reuse or repurpose values regarding research data (Shen, 2016). In India, a study by Tripathi et al. (2017) showed that 30% of 40 researchers and faculty members interviewed at two Indian universities had no culture of sharing data in their fields.

From the above review, the following observations can be made: (1) many of the researchers in the studies cited failed to use optimal research data management practices; (2) most of the studies revealed similar findings, i.e. that despite researchers' recognition of the importance of data sharing, they lacked the capability to actually share data; (3) universities and scientific journals motivate researchers towards public access to their research data; (4) researchers prefer to share research data among internal staff rather than with external communities; (5) most studies used interviews as a means of data collection, as it was easier for participants to discuss their perceptions and views about a given subject; and (6) our current study is quite similar to that of Tenopir et al. (2011) in many aspects, as will be seen in the discussion section, except for the fact that they discussed data management and sharing among researchers globally and focused on organizational support, fair use, rights, citation credits, and access to research data.

Arabic literature

To survey studies on research data in the Arabic literature, the researchers consulted three databases in the field: (1) the El-Hadi database (AFLI, 2017); (2) the EduSearch database (Dar Almandumah, 2017a); (3) HumanIndex in Arabic (Dar Almandumah, 2017b). Unfortunately, the three sources showed that no Arabic studies had explored the topic.

Therefore, this study is the first in the Arab world to explore how research data is managed and shared among researchers in Arab universities. Its importance comes from the fact that no comprehensive studies exist on this topic.

Research purpose and methodology

According to the 2011 Thomson Reuters Global Research Report (Adams et al., 2011: 7), Egypt, Saudi Arabia, and Jordan were the most prolific Arab countries in terms of annual research publication output in the region. Each of the three countries produced more than 1000 papers annually, indexed on the Thomson Reuters Web of Knowledge over the last few years. The report also showed a common focus in the fields of engineering, agricultural sciences, chemistry, pharmacology, materials science, and mathematics. It should further be noted that the Web of Science tends to skew towards these disciplines in general and that they are not specific to the Arab states. With this information in mind, a questionnaire was created, along with an introductory cover letter, and sent to 4086 academic faculty researchers at three Arab universities in the sample (see Table 1), selected because they are among the 10 best universities in the Arab World (QS World University Rankings, 2016).

Survey data was collected over the period from March to July 2017. The web-based questionnaire was created in English using Google Docs. Given that a UNESCO science report stated that from 2008 to 2014, Arab States published mostly in the life sciences, followed by engineering and chemistry (Zou'bi et al., 2015), the questionnaire targeted the faculties of Agriculture, Engineering, Medicine, Pharmacy, and Science. It should be noted that King Abdulaziz University's faculty of agriculture goes

Table 1. Survey respondents by university.

University	No. of researchers' email addresses	Responses	Breakdown by percentage
Cairo University	1952	140	41.5
King Abdulaziz University	1381	94	27.9
University of Jordan	753	103	30.6
Total	4086	337	100.0

by the title of Faculty of Meteorology, Environment and Arid Land Agriculture.

Research questions

This study will address four main research questions:

> What are research data management practices employed by researchers in Arab universities?
>
> Why did researchers in Arab universities share their research data, and how?
>
> What are the critical challenges facing researchers in Arab universities with respect to sharing their research data?
>
> What are researchers' requirements concerning managing and sharing their data more effectively?

Results and discussion

Researchers' demographic profiles

This section will discuss the demographic characteristics of participants, including age, academic job title, and discipline. Several of these characteristics are used later in the study to draw relations among variables.

The questionnaire contained 25 questions encompassing three main sections, namely: information about researchers, research data management practices, and research data-sharing activities (see Appendix A). To increase the response rate, a reminder was sent out to participants after the initial contact. A total of 4086 email invitations were distributed (to both personal and institutional email accounts) and 337 responses were received. Statistical analysis was performed by using Chi-square tests, which show the relationship between demographic factors and researchers' current practices for managing and sharing research data. The response rate was 8%. A low response rate is a major problem encountered by most surveys in the Arab world, especially for web-based

questionnaires. This rate is in line with Schöpfel and Prost's findings (2016), which revealed that the response rate for other surveys in the same field is partially unknown or ranges from 7% to 24%.

Despite the relatively low response rate, it was possible to compile information concerning respondents, including the following characteristics: (1) most of the respondents (41.5%) were from Cairo University, as a large number of academic staff from this institution were contacted; (2) the sample consisted predominantly of males (55.5%) – the female minority (44.5%) is not surprising, as females account for just 28% of researchers globally, and only 37% of researchers in the Arab world are women. In Egypt, females constitute 42.8% of all researchers, while in Jordan the proportion is 22.5%, and in Saudi Arabia it is 1.4% (Zou'bi et al., 2015). Only nine (2.6%) of the respondents were non-Arab, seven from King Abdulaziz University and two from the University of Jordan.

The age ranges of the 337 respondents were as follows: almost 3.3% were 25 and under; 11.3%, 26 to 30 years old; 12%, 31 to 35; 14.2%, 36 to 40; 12.5%, 41 to 45; and 14.2% were 46 to 50 years of age. Most of the respondents were older researchers (32.6% over the age of 50). It is worth mentioning that the average production of publications among scientists increases with age, with the highest publication productivity occurring in the 50–59 age bracket (Royal Swedish Academy of Engineering Sciences, 2012: 4). On the other hand, research data availability declines with article age (Vines et al., 2014: 94), which means that the longer authors hold on to their data, the greater are the chances of the data being lost over time; therefore, we can assume that older researchers may be more concerned about the loss of research data than their younger counterparts. It is not surprising that this age group responded in greater numbers to the questionnaire.

Researchers were asked to indicate their academic job title. Nearly 34.4% of faculty members were professors, with the bulk of respondents holding other teaching positions – associate professor (19%), assistant professor (22%), lecturer (11.3%) and teaching assistant (12.5%). Finally, a small proportion held a non-teaching position (researchers – 0.3%). The three Arab universities use almost the same terms for job titles, with the exception Cairo University, which, like all Egyptian universities, uses the term 'assistant professor' to designate a professor with the same credentials as an associate professor in Jordan and Saudi Arabia.

We shall see that academic discipline is an important variable in explaining some aspects of managing
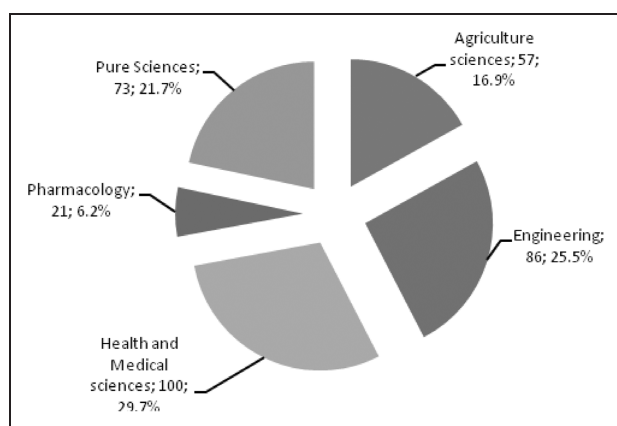
Figure 1. Survey respondents by broad discipline.

and sharing research data, according to the scale provided in the questionnaire. The responses were: one-third of respondents (29.7%) were from the field of health and medical sciences and 21.7% were from pure sciences (see Figure 1). This was expected, as research data management and sharing have a long history in health and medical sciences among scientists who collected it. Openness in the health sciences reached a milestone 20 years ago when scientists agreed to deposit genetic sequences in public databases (Chretien et al., 2016: 2).

Researchers' data management practices

There are various kinds of digital research data, including texts, numbers, and audio and video streams, which were generated through scientific experiments, models or simulations, observations, derived data, and canonical or reference data (Research Information Network, 2008).

It can be observed that the researchers in this study generated a broad spectrum of data types, including experimental measurements (66.8%), statistical data (54.9%), sample data (32.9%), and other types (8%) including data models, computer simulation results, designs, and predictions of mathematical models. These findings are in accordance with Tenopir et al.'s (2011) study, which emphasized that experimental data was the type most frequently used. The responses for the various types of data generated are presented in Table 2.

The formats in which research data are created usually depend on how researchers plan to analyze data, the hardware used, the availability of software, or discipline-specific standards and customs (Van den Eynden et al., 2011: 12). Respondents indicated various formats used for the digital data generated. Figure 2 shows that text documents (85.5%) and spreadsheets (60.5%) were the formats most

Table 2. Type of research-generated data.

Data type	Responses	Percentage
Laboratory notes	109	32.3
Experimental measurements	225	66.8
Statistical data	185	54.9
Clinical measurements	78	23.1
Sample data	111	32.9
Clinical data	58	17.2
Survey responses	79	23.4
Questionnaires	79	23.4
Photographs	45	13.4
Films	7	2.1
Test responses	37	11.0
Slides	30	8.9
Observations	91	27.0
Geospatial data	22	6.5
Other (please specify)	27	8.0

Note: Multiple answers were permitted.

frequently used. This is in accordance with the findings of the study by Meadows (2014), which showed that 82% of respondents produced data in spreadsheets and CSV files, and a small proportion (11%) generated video/audio recordings.

Researchers were asked to determine the expected preservation period for their data. As Figure 3 indicates, more than one-third of the researchers (36.2%) preserve their data for more than six years, and 24.6% from one to three years. However, about one-fifth (20.5%) of the respondents stated that they did not know. Of the latter group, 40.5% were from the field of engineering.

The chi-square test to evaluate the independence of variables was applied, using a 0.05 significance level to study the relationship between disciplines and preservation period. The results showed a correlation between the two variables, as seen in Table 3. It was found that of the 36.2% who chose the data preservation period of more than six years, 28.6% were from health and medical sciences, and 27% from engineering.

The chi-square test for the variables of data preservation period and gender showed a correlation between them (see Table 4). It was found that male researchers preserved research data for longer periods than their female counterparts: 65.5% of male researchers had preservation periods of more than six years. This result is not surprising, as female researchers are less productive in scientific publishing than their male colleagues (Aksnes et al., 2011: 628).

When asked whether they had a data management plan, 48.4% of respondents responded in the affirmative. Those who answered 'no' (51.6%) were given an
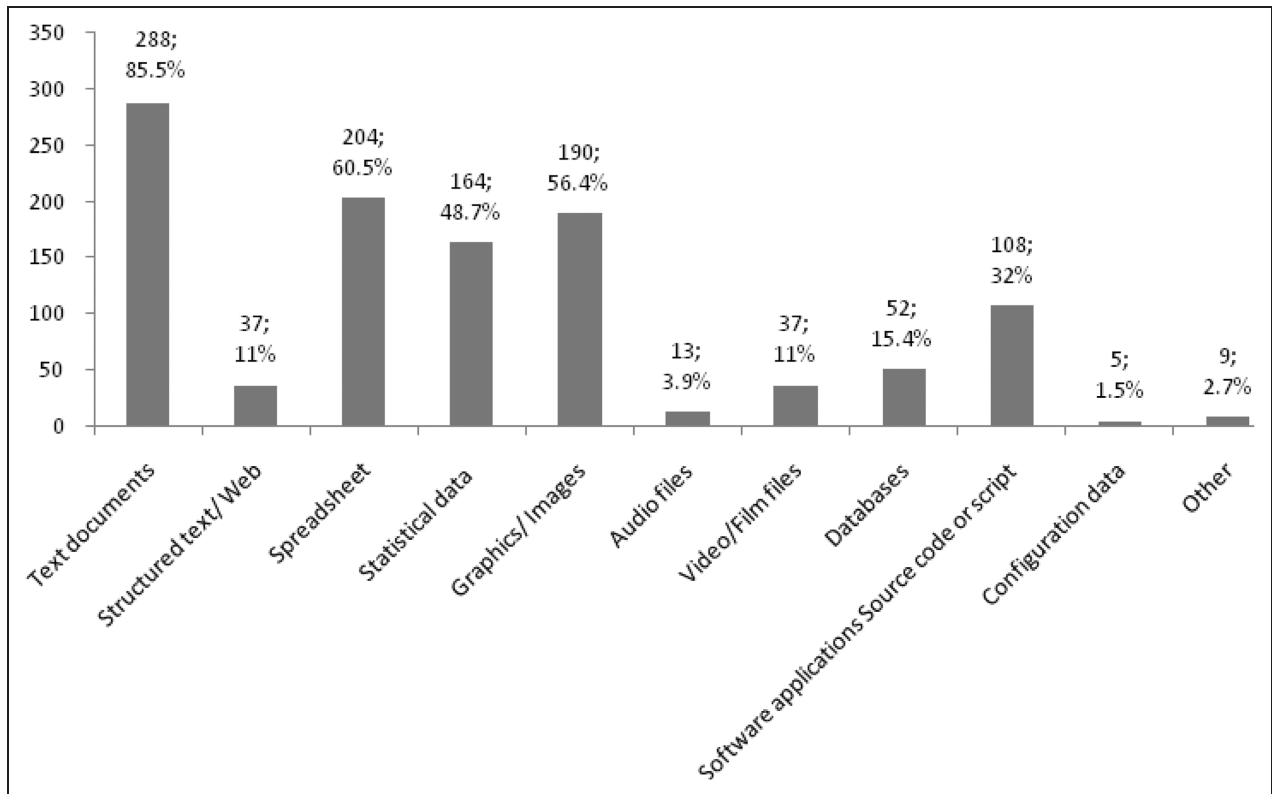
Figure 2. Format of research data generated.
Note: Multiple answers were permitted.
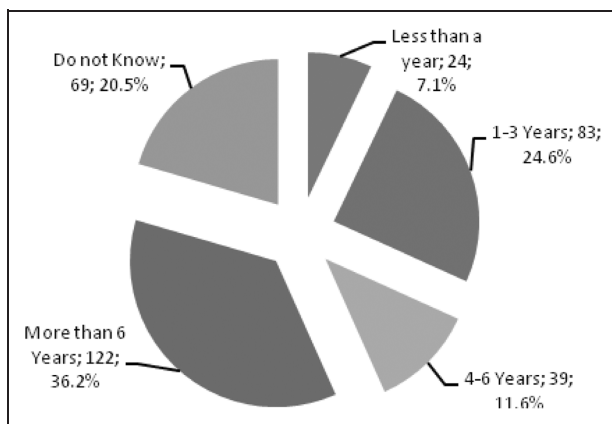
Figure 3. Research data preservation period.

opportunity to provide more information for their answer, using the scale provided in the questionnaire. This yielded the following data: 42% said they did not know what a data management plan was; 40.8% stated that they did not know how to create such a plan; 12.6% thought it was not necessary; 16.7% said they had no time for it; and a smaller proportion (1.7%) reported other reasons, such as the fact that the university did not provide facilities to create the plan. It is also important to note that in the questionnaire, the authors explained what a research data management plan meant for those who had not used one before.

As disciplines vary in their need for a research data management plan, the chi-square test to evaluate the independence of variables was applied, using a 0.05 significance level, to study the relationship between disciplines and having a research data management plan. The results showed a correlation between the two variables, as seen in Table 5. It was found that, of the 48.4% who had a plan, nearly 26.3% were from the pure sciences; 22% were from each of the following disciplines: agriculture sciences, engineering, and health and medical sciences; and 7.3%, the lowest, were from pharmacology.

According to Vines et al. (2014), the availability of research data fell 17% per year after initial publication due to outdated storage devices. In response to one of the survey questions which asked how respondents stored data, most (93.2%) responded that they used personal storage devices, with other storage methods being: hard copy (print) media (34.1%); cloud-based storage (32.9%); university's server or repository (11.3%); research data repositories (1.2%); and other (2.4%), chosen by eight respondents. Among the later percentage, two researchers stated that they sent their research data to their email account regularly as a backup, and one researcher used Research Electronic Data Capture (REDCap), the web application service, to manage online surveys and databases.

Table 3. Chi-square tests between disciplines and preservation period.

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	45.600[a]	16	.000
Likelihood Ratio	45.266	16	.000
Linear-by-Linear Association	9.679	1	.002
N of Valid Cases	337		

[a]4 cells (16.0%) have expected counts of less than 5. The minimum expected count is 1.50.

Table 4. Chi-square tests between preservation period and gender.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.926[a]	4	.018
Likelihood Ratio	12.019	4	.017
Linear-by-Linear Association	.679	1	.410
N of Valid Cases	337		

[a]0 cells (.0%) have an expected count of less than 5. The minimum expected count is 10.68.

Table 5. Chi-square tests between disciplines and having a research data management plan.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.469[a]	4	.002
Likelihood Ratio	16.628	4	.002
Linear-by-Linear Association	.227	1	.633
N of Valid Cases	337		

[a]0 cells (.0%) have an expected count of less than 5. The minimum expected count is 10.16.

Data documentation provides information regarding how data was collected, what it means, codes, abbreviations, and the structure of the data, to facilitate retrieval by researchers and others. Despite the usefulness of data documentation, only half (50.1%) of the respondents answered 'yes' to the question 'Do you document your research data?' For those who document their data, we asked them to identify the metadata standards they use. A large proportion (60.1%) reported that they did not use any metadata standards; however, 26.2% indicated that they applied informal metadata. This correlates with the findings of previous studies (Averkamp et al., 2014; Steinhart et al., 2012; Tenopir et al., 2011; Tripathi et al., 2017), which found that researchers generated and preserved

different types of data but did not pay much attention to its metadata. See Figure 4 for the metadata standards used.

As research data is generated through various stages of the research life cycle, participants were asked to indicate the volumes of data needing to be preserved: 40.7% of the researchers said that 75% of their data deserved preservation. Research data volumes are shown below in Figure 5.

Although a recent study by Vines et al. (2014) concluded that research data cannot be reliably preserved by individual researchers, Figure 6 shows that most of the respondents (97%) chose 'I, myself' when they were asked to indicate who was responsible for preserving their research data. A smaller group of researchers (4.5%) chose the university computer/IT center. This correlates with the findings of a study by Scaramozzino et al. (2012), which reported that 97% of respondents were personally responsible for data preservation.

Interestingly, respondents generally did not choose the university library as an entity responsible for preserving their research data; this may have to do with the fact that the academic libraries in the three universities in the sample are in the very early stages of participating in research data management, as could be gathered from their websites (Cairo University Central Library, 2017; King Abdulaziz University Library, 2017; Library of the University of Jordan, 2017).

Researchers' data-sharing activities

Participants were asked whether they had shared their data with others or not. Nearly 64.4% reported that they had already shared their data, and 35.6% said they had not. This result is in accordance with the study of Tenopir et al. (2011), which reported that fewer than half (46%) of respondents did not make their data electronically available to others.

For researchers who responded in the negative, many reasons were given, as shown in Table 6. The main reason cited by respondents was data privacy and confidentiality concerns (45.8%), followed by fear of data misuse (29.2%). Only 2.5% of the researchers reported other reasons, including the fact that nobody had requested their data. These responses correlate with the findings of Perry (2008), which stated that Canadian researchers worried about issues of confidentiality when providing access to their data, as well as those of Meadows (2014), which showed that 68% of respondents cited confidentiality issues as a reason for not sharing data. But this differs from the results of Tenopir et al. (2011), which stated that
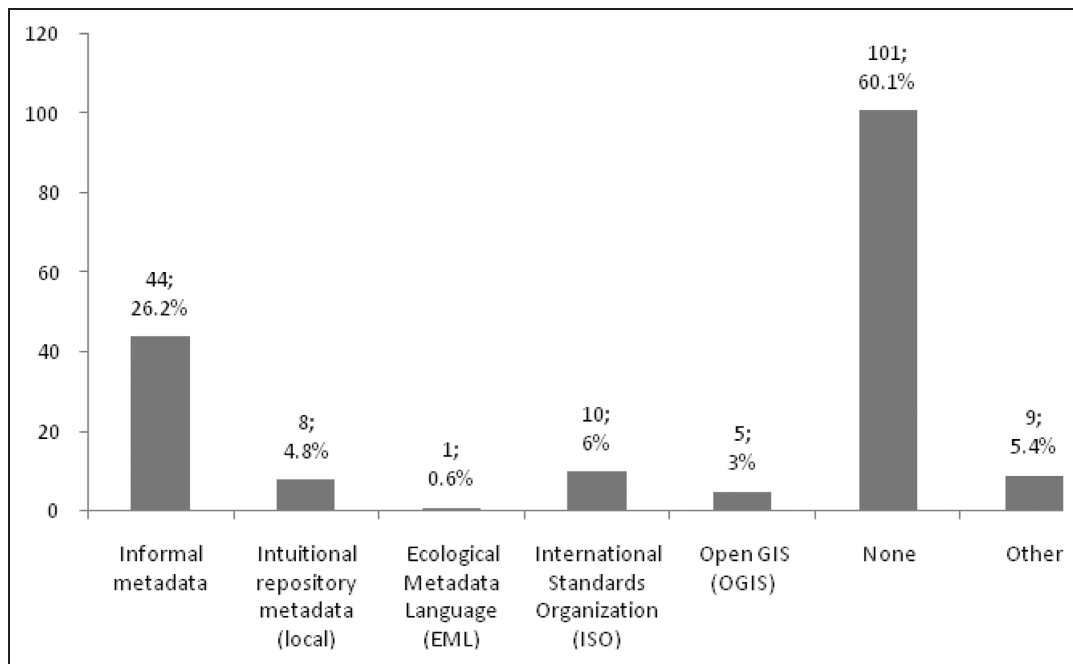
Figure 4. Metadata standards used.
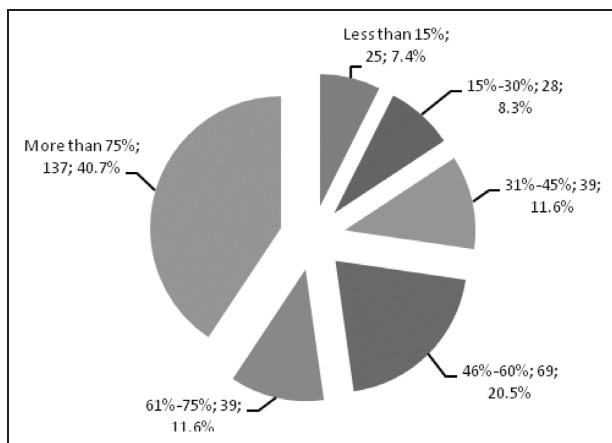
Figure 5. Volumes of research data needing preservation.

insufficient time (54%) was the main reason for not sharing data.

It may have been expected that younger researchers would be more likely to share data; on the contrary, older researchers were more supportive of the idea of data sharing. The chi-square test to evaluate the independence of variables was applied, using a 0.05 significance level to study the relationship between academic job title and the sharing of research data. The results showed a correlation between the two variables, as seen in Table 7. It was found that, of the 64.4% who shared data, 41% were professors. This correlates with the findings of Tenopir et al. (2011), who found that younger scientists under the age of 50 were less likely to make their data available to others without restrictions than older scientists over the age of 50.

According to Lämmerhirt (2016), sometimes the nature of a discipline makes it scientifically necessary to share the data underlying research publications. The chi-square test to evaluate the independence of variables was applied, using a 0.05 significance level, to study the relationship between discipline and the sharing of research data. The results showed a correlation between the two variables, as seen in Table 8. It was found that, of the 64.4% who shared data, 25.8% were from the pure sciences, 22.5% were from health and medical sciences, the lowest proportion (6.9%) being from the field of pharmacology.

It is also noteworthy that, of those (64.4%) who stated that they shared data, 44.7% were from Cairo University, 30% from the University of Jordan, and 25.3% from King AbdulAziz University. Participants who said that they shared their research data with other researchers identified many factors motivating them to do so: 81.6% of researchers shared data in order to contribute to scientific progress, 53.5% did so to increase research citations and visibility, and the lowest proportion (3.2%) mentioned other factors such as 'to help students improve their research outcomes', and 'this step is required by the research team'. All the factors are provided in Table 9.

When asked about the types of shared data, respondents reported that they shared various types of data. It is not surprising that experimental measurements (59.9%) and statistical data (52.1%) were the types most frequently shared (see Figure 7), as both represented the greatest amounts of data among participants.
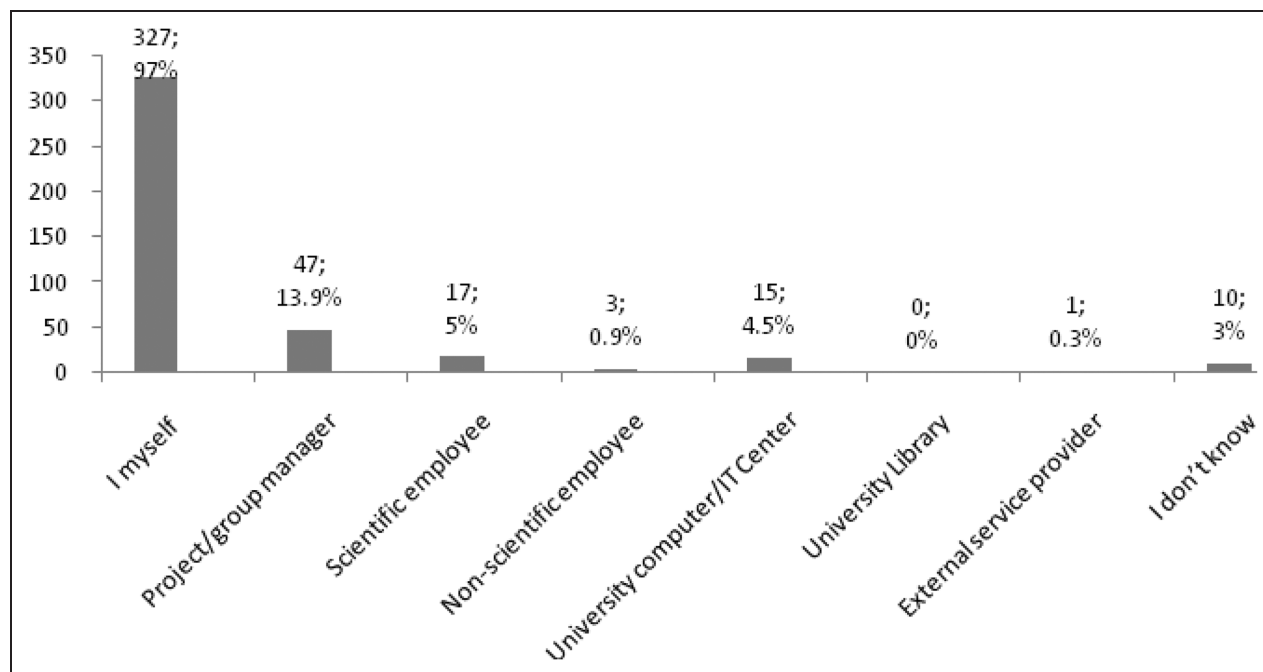
Figure 6. Research data preservation responsibility.
Note: Multiple answers were permitted.

Table 6. Reasons preventing researchers from sharing data.

Reasons	Responses	Percentage
Lack of interest in data sharing	29	24.2
Lack of institutional support	26	21.7
Insufficient time	14	11.7
I think no one will be interested in my data	13	10.8
I do not know how to share data	24	20.0
I don't have the right to make the data public	24	20.0
Data privacy and confidentiality concerns	55	45.8
Intellectual property issues	29	24.2
Fear of data misuse	35	29.2
Fear of data falsification	16	13.3
Citation and credit issues	29	24.2
Other (please specify):	3	2.5

Note: Multiple answers were permitted.

Table 7. Chi-square tests between academic job title and the sharing of research data.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.143[a]	5	.033
Likelihood Ratio	12.565	5	.028
Linear-by-Linear Association	6.446	1	.011
N of Valid Cases	337		

[a]2 cells (16.7%) have expected counts of less than 5. The minimum expected count is 1.07.

Table 8. Chi-square tests between discipline and the sharing of research data.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.748[a]	4	.001
Likelihood Ratio	18.826	4	.001
Linear-by-Linear Association	.474	1	.491
N of Valid Cases	337		

[a]0 cells (.0%) have an expected count of less than 5. The minimum expected count is 7.48.

Researchers used a number of different data-sharing methods: 57.6% stated that they shared their data by publishing in a research data journal; 49.3%, through academic social networks (ResearchGate, Academia, etc.); and 43.3% said that they made their data available to peers on request. Depositing data in open data repositories (Dataverse, OpenAIRE, etc.) is the least preferred way of making data electronically available to others among participants (5.1%). The findings from this question correlate with the findings of a study by Meadows (2014), which found that over two-thirds (67%) of the 52% who reported sharing did so as supplementary material in journals, while only 6% used a general repository. These findings are quite different from those of Tenopir et al. (2011), which showed that 78% of the respondents were willing to

Table 9. Factors motivating researchers to data share.

Motivating factors	Responses	Percentage
Contribute to scientific progress	177	81.6
Take part in open science	83	38.2
Avoid duplication of scientific efforts	75	34.6
Required by research funder	31	14.3
Required by journal publisher	63	29.0
Increase my research citations and visibility	116	53.5
Prove confidence in research results	74	34.1
Increase transparency of research	75	34.6
Increase my chances of obtaining a grant	37	17.1
Other (please specify):	7	3.2

Note: Multiple answers were permitted.

place at least some of their data into a central data repository with no restrictions. Table 10 presents the data-sharing methods.

It should be noted that for researchers in the sample who chose to publish in a research data journal, we interpreted their response as meaning the traditional publishing of study findings and results as a journal article and not as an article's supplementary material or as an article in a data journal.

Respondents who chose to publish data through academic social networks such as ResearchGate or Academia (49.3%) were asked to indicate how many research data files had been uploaded to their academic social network profile. As seen in Figure 8 a large proportion (40.4%) indicated that they had published from one to five data files on their profile page, which means that researchers published a small amount of their research data freely online. This correlates with the findings of the study by Elsayed (2016), in which she found that raw data represented a small proportion of the types of publications uploaded by Arab researchers in ResearchGate.

Many factors motivated researchers to reuse other researchers' data, including: reducing time, effort and the cost of data collection, and making new discoveries which contribute to the development of science (Curty, 2015). When participants were asked about reusing research data generated by other researchers across their research field, more than half (53.5%) of the respondents replied that they did this, while 46.5% of researchers said that they did not. This correlates with the findings of Tenopir et al. (2011), which showed that most respondents (85%) were interested in using other researchers' datasets when easily accessible.

To address challenges, participants were asked to indicate obstacles they encountered in sharing their research data. The leading obstacle was data privacy and confidentiality (57.1%), followed by the time and effort required to share data (37.3%). Confidentiality seems to be a common concern among both researchers who share and those who are unwilling to share (see Figure 9).

Researchers' requirements

In the final survey question, to overcome the barriers preventing the management and sharing of data, we asked researchers about research data services they would like to see at their university. The respondents stated that their universities needed to play a significant role in supporting data management and sharing. More than half (56.9%) indicated that they needed training in research data management, followed by services for data storage and backup (55.1%), a university research data repository (46.8%), research data policies and guidelines (36.6%), while 3.7% mentioned other services such as the establishment of data journals to publish research data in the Arab States.

Conclusion

This study has highlighted the practices of researchers from three Arab universities for managing and sharing of research data, and the challenges facing them. It has also explored services needed by researchers that universities could provide to help them handle their data. It has underscored that researchers' personal experience is their only source of guidance for data management, as more than half of them had no data management plan and 42% were unfamiliar with data management plans. This implies that this step of the research life cycle is a new concept for survey participants who work with data, whether in the collection, description, storage, preservation, or sharing of data. As expected, it was found that personal storage devices were widely used to store data, and that only half of the researchers documented their data. Most researchers were responsible for preserving research data by themselves.

Concerning sharing data, researchers at the three Arab universities demonstrated a positive attitude towards sharing research data, especially older researchers; but this attitude is in its infancy, as about 64% of the researchers stated that they had shared their data. Publishing in a data journal is the preferred way of sharing data. We discovered that, despite the fact that more than half of the researchers reused other researchers' data, the practice of depositing data in
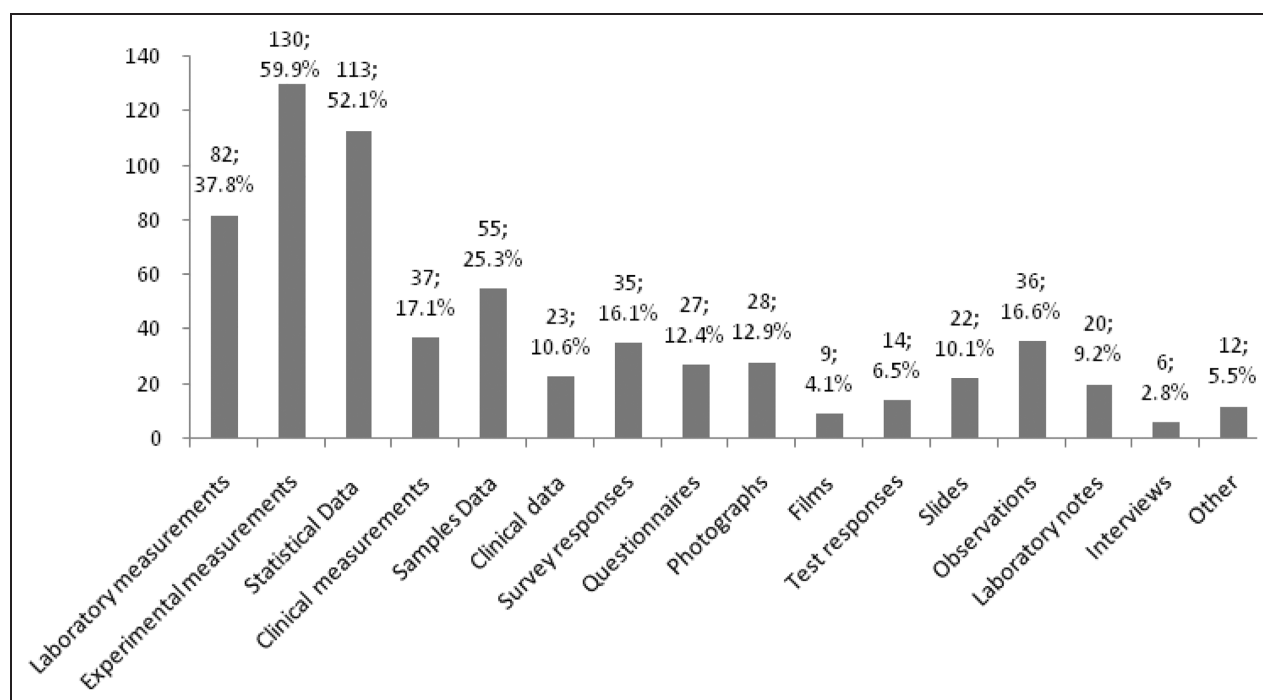
Figure 7. Types of shared research data.
Note: Multiple answers were permitted.

Table 10. Methods used to share research data.

Sharing methods	Responses	Percentage
Post data to personal website	57	26.3
Deposit data in open data repositories (Dataverse, OpenAIRE, etc.)	11	5.1
Deposit data in an institutional data repository service	18	8.3
Publish data through academic social networks (ResearchGate, Academia, etc.)	99	45.6
Publish in a research data journal	125	57.6
As supplementary files for the paper on a journal's website	28	12.9
Make data available to peers on request	94	43.3
Make data available within a research group	81	37.3
Other (please specify):	3	1.4

Note: Multiple answers were permitted.

open data repositories was not prevalent. Privacy and confidentiality were found to be the leading reasons that prevented researchers from sharing data. Researchers seemed to recognize the need to be trained in order to become better informed about data management and sharing issues, as the majority of them mentioned training as an important service university must offer.
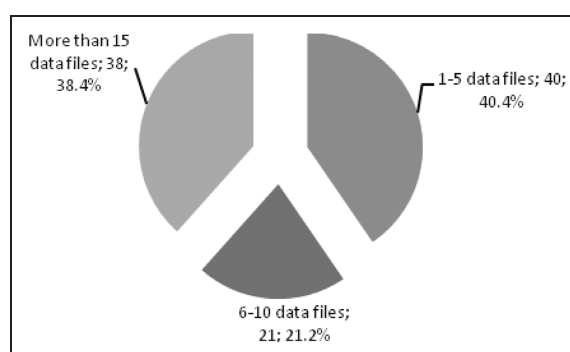
Figure 8. Research data files uploaded to academic social network profiles.

In addition to the low response rate, a non-functional email address was a major problem encountered during this study, as a large number of email addresses found in the three universities' websites generated many error messages. Many email invitations to take the survey bounced and could not be delivered. Also, it would have taken a good deal of time and effort to explain every term in the questionnaire that the researchers may not have been familiar with, such as the meanings of research data, data management plan, data documentation, data repository, etc.

The transition towards a culture of data management and sharing among researchers at Arab universities should start with training in data management and sharing practices; encouraging funded research projects to deposit research data in the funding
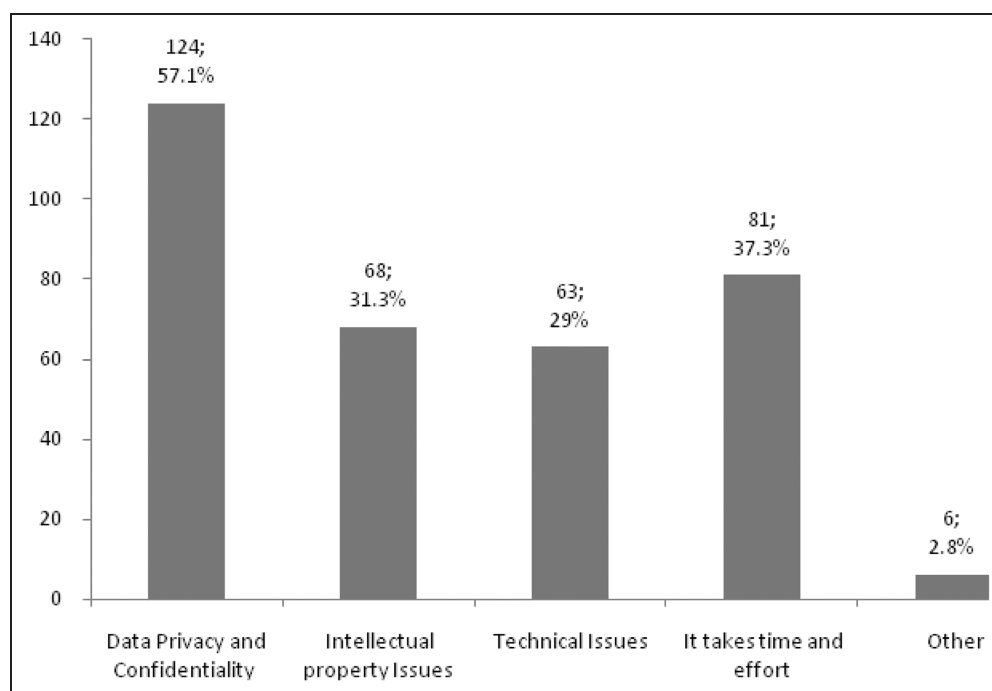
Figure 9. Obstacles preventing the sharing of research data.
Note: Multiple answers were permitted.

agencies' repositories at least; providing infrastructures, including repositories, policies, guidelines and best practices, and tools supporting backup and accessibility; and finally, rewarding data sharing within and beyond universities. This will require joint efforts among university academic staff, research centers, academic libraries, journal publishers, and universities themselves, which will be in the forefront, playing a pivotal role in this regard.

Finally, this study did not examine the services of research data repositories and their use by researchers, the policies of Arabic-language journals regarding research data, the rankings of Arab universities with respect to data-management practices, research data and Arab academic libraries, or the impact and value of research data in Arab countries. These topics are areas for further research. Also, it would be interesting to repeat this study using samples from social science and humanities researchers in Arab countries. Expanding the study to more Arab countries and universities would produce more representative results.

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Appendix A (Questionnaire)

Research data management and sharing among researchers in Arab universities

Dear Researcher,

You are invited to participate in a research data management and sharing study. Your responses will help us better understand how researchers in Arab universities manage and share their research data for more improvement of data management and sharing in the Arab world.

We'll be grateful if you could kindly fill up this questionnaire, which will take 15–20 minutes to complete. All the results gathered will be used solely for scientific purposes and will be treated confidentially.

If you have any questions about the study, please contact Amany Elsayed (amhamouda@kau.edu.sa or amany03@gmail.com) or Emad I. Saleh (eamoham mad1@kau.edu.sa or emad.saleh2@gmail.com).

Note:
Research data: means any information, in particular facts or numbers, collected to be examined and considered as a basis for reasoning, discussion, or calculation. In a research context, examples of data include statistics, results of experiments, measurements, observations resulting from fieldwork, survey results, interview recordings and images (Directorate-General for Research & Innovation, 2016: 3).

General information

1) University:

- ◯ Cairo University
- ◯ King Abdulaziz University
- ◯ University of Jordan

2) Nationality:

- ◯ Arab
- ◯ Non Arab

3) Gender:

- ◯ Male
- ◯ Female

4) Age:

- ◯ 25 and under
- ◯ 26–30
- ◯ 31–35
- ◯ 36–40
- ◯ 41–45
- ◯ 46–50
- ◯ Over 50

5) What is your academic job title?

- ◯ Professor
- ◯ Associate Professor
- ◯ Assistant Professor
- ◯ Lecturer
- ◯ Teaching Assistant
- ◯ Other (please specify):
  If you selected other, please specify

  _____

6) In what field is your qualification?

- ◯ Agriculture sciences
- ◯ Engineering
- ◯ Health & Medical Sciences

○ Pharmacology
○ Pure Sciences

Research data management practices

7) Which type of research data do you generate during your research? (You can choose more than one answer)

☐ Laboratory notes
☐ Experimental measurements
☐ Statistical data
☐ Clinical measurements
☐ Samples data
☐ Clinical data (demographics, blood pressure, outcomes),
☐ Survey responses
☐ Questionnaires
☐ Photographs
☐ Films
☐ Test responses
☐ Slides
☐ Observations
☐ Geospatial data
☐ Other (please specify):
If you selected other, please specify
_____

8) Which research data format do you preserve?

(Data preservation means a series of activities including auditing, making a backup copy, protecting, licensing, etc. to protect data from being lost or destroyed which guarantee its access and reuse in the future).

(You can choose more than one answer)

☐ Text documents (.doc, .docx, .log, .rtf, .txt, .pdf, etc.)
☐ Structured text/ Web (html, xhtml, json, tex, xml, etc.)
☐ Spreadsheet (.wks, .xls, ods, csv, etc.)
☐ Statistical data (.sas, .sav, .sps, etc.)
☐ Graphics/ Images (.bmp, .tiff, .gif, .jpg, .png, svg, etc.)
☐ Audio files (.wav, .mp3, aiff, ogg, etc.)
☐ Video/Film files (mpeg, avi, wmv, mp4, mov, etc.)
☐ Databases (.db, .mdb, etc.)
☐ Software applications Source code or script (CSS, JavaScript, Java, etc.)
☐ Configuration data (INI, CONF, etc.)
☐ Other (please specify):
If you selected other, please specify
_____

9) How long do you expect to preserve your research data?

☐ Less than a year
☐ 1–3years
☐ 4–6 years
☐ More than 6 years
☐ Do not know

10) Did you have a research data management plan?
(A plan which identifies the type of data that will be generated, how it will be documented, stored, and shared. In addition to any further information such as copyright, back-up, responsibilities, and cost, etc.)

○ Yes
○ No

11) If the answer is 'No', please identify why: (You can choose more than one answer)

☐ I do not know what it is
☐ I do not know how to make it
☐ I think it is not necessary
☐ I have no time for it
☐ Other (please specify):
If you selected other, please specify
_____

12) How do you store your research data?

(Research data repository is a large database designed to manage and share of research data deposited by funding bodies or by researchers themselves. it may be general repository such as (re3data.org) or specialized in specific topic (such as National Space Science Data Center (US/NASA).

(You can choose more than one answer)

☐ Personal storage devices (computer hard drive, CDs, DVDs, flash drives USB)
☐ Cloud based storage (Google docs, Drop Box, iCloud, etc.)
☐ Research Data repositories (Dataverse, OpenAIRE, etc.)
☐ University's server or repository
☐ Hardcopy or printed form
☐ Other (please specify):
If you selected other, please specify
_____

13) Do you document your research data?
(To document data means to describe how the data were collected, what they mean, their structure, volume, format, etc.)

○ Yes
○ No

14) If the answer is 'Yes' do you use a metadata standard?

(Metadata means data about data which describe datasets to facilitate search and retrieval.)

(You can choose more than one answer.)

☐ Informal metadata
☐ Intuitional repository metadata (local)
☐ Darwin Core (DwC)
☐ Directory Interchange Format (DIF)
☐ Ecological Metadata Language (EML)
☐ Federal Geographic Data Committee (FGDC)
☐ International Standards Organization (ISO)
☐ Open GIS (OGIS)
☐ None
☐ Other (please specify)
   If you selected other, please specify

   _____

15) Identify the percentage of your research data volume which needs to be preserved.

○ Less than 15%
○ 15%–30%
○ 31%–45%
○ 46%–60%
○ 61%–75%
○ More than 75%

16) Who is responsible for preserving your research data? (You can choose more than one answer.)

☐ I myself
☐ Project/group manager
☐ Scientific employee
☐ Non-scientific employee
☐ University computer/IT Center
☐ University library
☐ External service provider
☐ I don't know

Research data-sharing activities

17) Do you share any of your own research data?

○ Yes
○ No

18) If the answer is 'No', please identify why. (You can choose more than one answer.)

☐ Lack of interest in data sharing
☐ Lack of institutional support

☐ Insufficient time
☐ I think no one will be interested in my data
☐ I do not know how to share data
☐ I don't have the rights to make the data public
☐ Data privacy and confidentiality concerns
☐ Intellectual property issues
☐ Fear of data misuse
☐ Fear of data falsification
☐ Citation and credit issue
☐ Other (please specify):
   If you selected other, please specify

   _____

19) Why did you share your own research data? (You can choose more than one answer.)

☐ Contribute to scientific progress
☐ Take part in open science
☐ Avoid duplication of scientific efforts
☐ Required by research funder
☐ Required by journal publisher
☐ Increase my research citation and visibility
☐ Prove confidence in research results
☐ Increase transparency of research
☐ Increase my chance of obtaining a grant
☐ Other (please specify):
   If you selected other, please specify

   _____

20) What type of research data do you already share with other researchers? (You can choose more than one answer.)

☐ Laboratory measurements,
☐ Experimental measurements
☐ Statistical data
☐ Clinical measurements
☐ Samples data
☐ Clinical data (demographics, blood pressure, outcomes),
☐ Survey responses
☐ Questionnaires
☐ Photographs
☐ Films
☐ Test responses
☐ Slides
☐ Observations
☐ Laboratory notes
☐ Interviews
☐ Other (please specify):
   If you selected other, please specify

   _____

21) How do you share research data with other researchers? (You can choose more than one answer.)

☐ Post data to personal website
☐ Deposit data in open data repositories (Dataverse, OpenAIRE, etc.)
☐ Deposit data in an institutional data repository service
☐ Publish data through academic social networks (ResearchGate, Academia, etc.)
☐ Publish in a research data journal
☐ As supplementary files for the paper on a journal's web site
☐ Make data available to peers on request
☐ Make data available within a research group
☐ Other (please specify):
   If you selected other, please specify

_____

22) If your answer is 'Publish data through academic social network' How many research data files have been uploaded to your academic social network profile (ResearchGate, Academia, etc.)?

○ 1–5
○ 6–10
○ 11–15
○ More than 15

23) Do you ever before reuse research data generated by other researchers in your own researches?

○ Yes
○ No

24) What is the main obstacle in sharing your research data? (You can choose more than one answer.)

☐ Data privacy and confidentiality
☐ Intellectual property issues
☐ Technical issues
☐ It takes time and effort
☐ Other (please specify):
   If you selected other, please specify

_____

Researchers' requirements

25) What research data services would you most like to see at your university? (You can choose more than one answer.)

☐ University research data repository
☐ Services for data storage and backup
☐ Research data policies and guidelines
☐ Training courses in research data management
☐ Other (please specify):
   If you selected other, please specify

_____

Thank you for your participation.

The hidden heritage of Arab libraries: Online catalogs and institutional barriers to discoverability

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Abstract
Advances in technology have made access to information about library holdings a seemingly universal feature of interaction with modern libraries. However, this type of access does not exist evenly throughout the world. There is a vast "hidden heritage" contained in Arab libraries without online public access catalogs. This article reports and summarizes findings from research conducted as part of a year-long investigation into international library collaboration in Arab libraries. The research included: (a) a survey of online presence for Arab libraries, (b) a survey of Arab librarians, and (c) focused panel discussions with Arab librarians and library scholars. This study finds that the relatively small online presence of libraries cannot be explained by material factors alone: institutional factors also play an important role in keeping information about library collections offline.

Toward universal discoverability

At the dawn of the computing era, Vannevar Bush (1945: 105) envisioned a mechanical system that would make the entire "inheritance of acquired knowledge" accessible to all, displayed on desktop screens in every office and home and no longer "encased within stone walls of acceptable architectural form." The Internet has progressed toward this vision at an astonishing pace, making more information more accessible than ever before in history.

But gaps in the record remain. Parallel with the "digital divide" (Dijk, 2005; Hilbert, 2016; National Telecommunications and Information Administration (NTIA), 1995; Norris, 2001; Ragnedda and Muschert, 2013)—inequality of access to the Internet—is what we call "hidden heritage": inequality in the production and distribution of digital material. Hidden heritage refers to the vast archive of intellectual production that remains "encased within stone walls," accessible only to library patrons and searchable only through paper indexes.

The founders of information science emphasized material solutions—scientific innovation and the application of resources—to the problem of information scarcity, in keeping with the technocratic optimism of the era (Pursell, 2007). "The ways in which man produces, stores, and consults the record of the race," wrote Vannevar Bush, will depend on "means as yet unknown which may come any day to accelerate technical progress as violently as did the advent of the thermionic tube" (Bush, 1945: 108).

Indeed, the development of new information technology has been crucial to the massive accumulation and distribution of knowledge, and resources are closely correlated with participation in the new venues of information sharing. North America and Western Europe account for more than half of the global stock of digital information, according to several studies (Bounie and Gille, 2012: 1006; Gantz et al., 2007: 5; IDC 2014: 3). As shown in Figure 1, there is a strong

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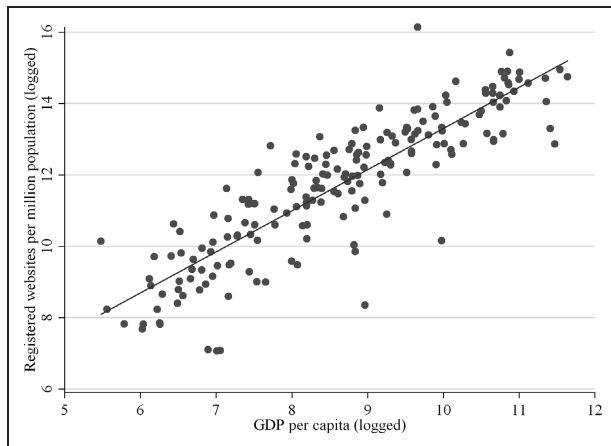
Figure 1. Logged GDP per capita and website production, 2016.

relationship between the number of IP addresses in each country (DomainTools, 2016) and per-capita gross domestic product (GDP) (World Bank, 2016).

Over the past generation, however, scholars have noted that while material factors may be necessary, they are not by themselves sufficient to explain access to digital information. Institutional factors also play a role, just as they have in earlier eras of scientific and technological advance (Briggs and Burke, 2010; Shapin and Schaffer, 2011), including contexts shaped by government agencies, technology companies, information gatekeepers, and linguistic and cultural communities (DiMaggio et al., 2004; Guillén and Suárez, 2005; Nicholas, 2003; Perkins, 1996; Savolainen, 2016; Segev, 2010). Institutions are intended here in a broad sociological sense, referring not just to formal organizations but also to legal and political regimes, as well as informal norms and conventions (Powell and DiMaggio, 1991; Scott, 2014).

A smaller body of literature focuses on inequalities of digital production. On an individual level, women are less represented than men among Wikipedia editors, for example, even controlling for Internet access and skills (Hargittai and Shaw, 2015). Older people create less online content than younger people (Brake, 2014). Educated people engage in more digital production than less-educated people (Schradie, 2011, 2012). On a global level, many of the institutional contexts identified as factors shaping Internet access may play a role in the production of digital information as well, such as government initiatives to digitize library collections and corporate investment in digital corpora. Conversely, authoritarian regimes and private interests may block or manipulate the production of digital information (Horten, 2016; Morozov, 2011).

We offer a case study of a crucial institutional mechanism for the discoverability of information:

online library catalogs. This may seem obscure, since libraries are hardly the only, or even the primary, repositories of information, especially in the digital era. Moreover, library catalogs typically provide only an index to other works, rather than the content of those works. Online library catalogs are so widespread in some parts of the world that they are taken for granted and may be considered uninteresting. But that taken-for-grantedness is a remarkable achievement that other parts of the world are still struggling to attain. In Arab countries, for example—the sites of this study—it is often unclear where material is located. In the absence of online catalogs, researchers must rely on word of mouth to identify libraries with holdings they wish to consult, then travel to each library and navigate internal procedures to access the local catalog. This process was the norm for all of humanity prior to the development of union catalogs in the early 20th century (Downs, 1942).

Two decades after Vannevar Bush's manifesto, Frederick Kilgour (1965: 147) anticipated a system offering "bibliographic services to each library by real time computer operations." In 1967, Kilgour launched the first such system, the Ohio College Library Center, billed as "a cooperative, computerized regional library center which would serve the academic libraries of Ohio (both state and private) and become part of a national electronic network for bibliographic communication" (Committee of Librarians, 1966). This network is now known by its acronym, OCLC. By the late 1980s, the OCLC's network of dedicated computer terminals was widespread enough, at least in the United States, that Kilgour could envision the goal of "100 percent availability," including "a system for retrieving information from books in machine-readable form . . . for searching from a personal computer or from some other type of access" (Kilgour, 1989: 50). This vision has inspired Google Books, the Gutenberg Project, the Hathi Trust, the Internet Archive, and countless other Internet book collections.

As of early 2017, the OCLC's online catalog, WorldCat, included 2.5 billion items in more than 16,000 member libraries in 120 countries. Yet the world's library collections are not all equally visible. There is a strong correlation between logged GDP per capita (World Bank, 2016) and the number of OCLC member libraries (OCLC, 2016a), as shown in Figure 2. (The graph transforms OCLC member libraries per million population with an inverted hyperbolic sine, which is preferable to natural log because it can handle values of zero; the correlation line is represented with Lowess smoothing.)

Of course, these figures cannot measure the hidden heritage of libraries that are not OCLC members. For
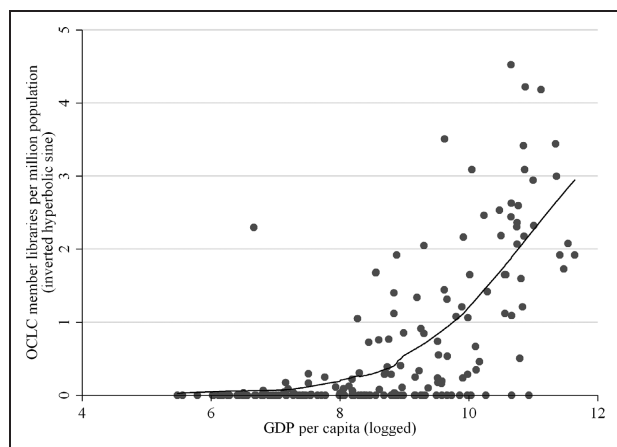
Figure 2. Logged GDP per capita and OCLC member libraries, 2016.

that, we turn to another source, with a focus on a single world region.

Arab libraries and online catalogs

Two millennia ago, Egypt was the site of the first great attempt to collect and catalog all human writings, the Great Library of Alexandria (El-Abbadi, 1990; Blum, 1991). Today, there are 831 libraries in 17 Arab countries with estimated holdings of more than 50 million books, according to the 2013 edition of the *Directory of Middle East and North African Libraries* (2013). While not exhaustive, this directory serves as the most complete available listing of libraries operating as stand-alone institutions or under the umbrella of a larger cultural, governmental, or educational institution.[1] Of these libraries 70 (8%) are members of OCLC, and an unknown number of libraries participate indirectly in OCLC's Worldcat through the Arab Union Catalog, an initiative launched by the King Abdulaziz Public Library in Riyadh, Saudi Arabia, in 2006, building on interlibrary computer networks launched by the King Abdulaziz City for Science and Technology and other institutions in the 1980s (Al-Tasan, 1992; Ashoor, 1989). The Arab Union Catalog, also known as the Arabic Union Catalog, entered into a partnership with OCLC in 2011, sharing 1.4 million records with Worldcat (OCLC, 2011).

We identified URLs of libraries in the 2013 *Directory of Middle East and North African Libraries*, then used web-scraping software to access the front page and links to the online catalog, where available. Just under half of the libraries in the directory—402 of 831 libraries—had a web address, more than double the 175 library websites identified by a study published eight years earlier (Shahin, 2005). However, only 270 of the 402 library websites were active in late 2014

Table 1. Libraries and web presence in Arab countries, 2013–2015.

Country	Number of libraries	% with websites	% with online catalogs
Algeria	82	34.1	12.2
Bahrain	25	52.0	20.0
Egypt	181	16.0	7.2
Iraq	30	16.7	6.7
Jordan	40	30.0	15.0
Kuwait	25	64.0	40.0
Lebanon	53	39.6	22.6
Libya	37	5.4	0.0
Morocco	94	25.5	6.4
Oman	22	59.1	22.7
Palestine	21	52.4	28.6
Qatar	16	56.3	25.0
Saudi Arabia	37	64.9	32.4
Syria	20	40.0	10.0
Tunisia	52	5.8	1.9
United Arab Emirates	86	60.5	37.2
Yemen	10	0.0	0.0
All	831	32.5	15.2

and early 2015. Of these 270 active websites, fewer than half included an online catalog for public use—126 in total, or 15% of the libraries listed in the directory (see Table 1).[2]

Barriers to discoverability are not just a matter of technology and resources. In the early days of electronic cataloging, to be sure, technical barriers did exist for Arabic-language material, which had to be entered into electronic catalogs using Romanized transliterations. Software has since been developed to allow easier text entry in Arabic script, and most online library catalogs in Arab countries (62%) used Arabic script for Arabic-language metadata, with another 18% presenting both Arabic script and Romanized transliterations. Similarly, resources are correlated with the presence of online catalogs—logged GDP per capita and the percent of online library catalogs in each country have a bivariate correlation of .70—but even in the wealthy Gulf countries with the highest rates of libraries with websites and online catalogs, fewer than half of the libraries allowed public online search of their collections.

Survey of Arab librarians

What accounts for the low rate of online library catalogs in Arab countries? We conducted a survey of Arab library professionals in Fall 2014 to gauge attitudes about and experience with international collaborations, in conjunction with two professional

organizations for librarians and library educators: the Arab Federation of Libraries and Information (AFLI), which is based in Tunisia, and the Middle East Librarians Association (MELA), which is based in North America. These organizations distributed our survey recruitment message to more than 4000 listserv members and approximately 11,000 Facebook users. The online survey instrument consisted of 22 closed-ended questions and six open-ended questions in Arabic, French, and English. The response rate to this solicitation was small, with a total of 237 respondents in 12 Arab countries,[3] but almost unanimous in agreement that current levels of collaboration were insufficient (98%). Among the benefits mentioned repeatedly in an associated open-ended question was greater collaboration in online catalogs, including training for librarians and changes to library procedures in keeping with global standards. Among these responses (translated from Arabic and French) were:

> Breaking the digital divide and exchanging experience and information on the latest developments in the field of informatics.

> Collaborative online cataloging and indexing.

> Creating and playing an active role for the library in linking individuals, publics, and the institution to which they belong in the global library network.

> Developing expertise in the field of collections, cataloging and classification, indexing, extraction, loan, automated library management systems, digitization.

> Engaging in reliable digital library projects; training staff at a higher level of global scientific standards.

> Helping develop the scientific capacity of specialists in order to create a national on-line catalog.

> Increasing collaboration among libraries in several areas, such as collection development and document cataloging; making knowledge available about the rules of the digital information network.

> Joining efforts to produce a unified catalog.

> Standardizing libraries' technical operations.

> Training in collaborative technical and technological work ... more coordination through the use of information and communication technologies.

> Training in the best IT practices and their application in the Arab context.

> Unifying the efforts of libraries in technical processes and procedures related to the preparation of electronic and paper information sources to avoid duplication of efforts and waste of time on the same work ... for example, using the latest software for digitization, electronic cataloging, etc.

A separate open-ended question asked respondents about the obstacles or challenges faced by international collaborations at their institution. Only 45 strongly motivated respondents offered their views on this sensitive topic. One-third of these respondents mentioned material factors: technical barriers such as limited Internet connectivity and incompatible software, human resource challenges such as the limited availability of information technology specialists, and financial problems that prevented investment in new systems and staff. Far more common than material factors, however, were institutional barriers, which were mentioned in all but two responses.

Several of these responses identified barriers associated with governmental institutions, such as the absence of a legal framework for international library collaboration in some countries and a lack of "political enthusiasm," as one respondent put it, championing such initiatives. Other comments were politically pointed, though brief:

> Control over opinions.

> Libraries do not have the freedom to act and make decisions.

> The major obstacle is political will at the highest pyramid of power.

> The political situation.

More commonly, the comments identified institutional barriers within their libraries. A number of respondents referred to bureaucratic intransigence. Others blamed personalistic authority: "the widespread dependence on irregular traditional systems in our libraries," in the words of one respondent. This complaint runs counter to the views expressed in a study of library technology adoption in Kuwait, which found that "staff approved of this authoritarian style and saw their own role as following instructions" (Al Fadhli et al., 2016: 9). Top library officials did not see the value of international collaboration, according to some respondents:

> Lack of awareness of administrative leaders about cooperative projects.

> Lack of awareness among officials of the importance of the university library and the benefits these [international] projects offer for scientific research and researchers. ... Most library supervisors at [my university] are non-specialists.

> Lack of sufficient awareness of the need to support this field in order to join the developed countries as a necessity for building an enlightened society, by increasing the qualifications, competencies, and skills of the people

in charge of digital libraries affairs, in order to establish outstanding Arab digital libraries.

Lack of understanding by the supervisory authority of the importance of this cooperation.

The majority of university library directors are conservative by virtue of their seniority and their professional experiences. They are in need of extensive training in the field of modern library techniques and software and information and communications technology, as well as the latest managerial methods.

Several respondents went further and accused library administrators of undermining international collaborations by "favoring private interests over the public interest," as one respondent put it:

Overseas training [has been] monopolized by a certain class.... The first priority is for administrators, not the technical staff who were supposed to get the lion's share [of training] in order to acquire skills and keep abreast of the latest developments.

The proposed project does not benefit specialists but administrators and officials.

Training belongs to a certain class of people.

Whether these initiatives were undervalued by administrators or commandeered by administrators, the result, according to many respondents, was that too many Arab libraries remained cut off from the global network of online catalogs:

A total absence of library participation in networked search methods.

Each country uses local standards and specifications.... Also, the software and systems lack many of the [international] specifications, such as metadata.

Non-application of international standards in information processing.

The majority of librarians developed their expertise through experience and practice, making them in many cases unable to keep up with the latest developments in the field.

There is no plan for cataloging and classification along international standards.... Specialized software is not available for information storage and retrieval in keeping with [international] standards for information exchange, such as MARC [machine-readable cataloging], etc.[4]

In a separate open-ended question, 44 survey respondents offered solutions to overcome the obstacles they had identified. Again, material factors—technology and funding—were mentioned by relatively few respondents (6 of 44), while most focused on institutional factors, such as revised administrative procedures and greater opportunities for training.

Panel discussions with Arab librarians and library scholars

To get a deeper sense of the challenges facing Arab libraries, we convened two panels of leading library scholars and professionals from the Middle East Librarians Association (MELA), the Arab Federation for Libraries and Information (AFLI), and the Special Libraries Association - Arabian Gulf Chapter (SLA-AGC). The first panel was held in Washington, DC in November 2014, in conjunction with the MELA annual conference; the second was held in Abu Dhabi, United Arab Emirates, in March 2015, in conjunction with the SLA-AGC's annual conference. Both panels presented this project's preliminary findings to conference participants, and encouraged open discussion among the four panelists and the audience (45 audience members at the MELA conference and 70 at the SLA-AGC conference). We took detailed notes during these panels and later organized these notes by theme.

These discussions, along with follow-up conversations, identified three institutional factors that may be particularly significant factors in the hidden heritage of Arab libraries.

Oil wealth and libraries

The participants in these panels were all experienced library professionals. They knew how library budgets worked, and they identified the overarching context for every decision in Arab libraries as the degree of access to oil wealth. Libraries in the oil-rich countries could invest in new technologies and the personnel needed to run them, while libraries in less-wealthy countries had little budgetary discretion. The timing of oil wealth, and the locations where it happened to sprout, meant that libraries in oil-rich countries were more likely to be new, with facilities that were custom-built for computers and Internet connections and collections that were acquired and catalogued in the digital age.

By contrast, the oldest and largest libraries in the region, whose collections were most in need of electronic cataloging, were in countries with less oil wealth. Major projects to upgrade the catalogs in less-wealthy countries often involve foreign funding. For example, the National Library of Egypt, which may have the largest collection of any Arab library, has partnered with institutions in the United States, Europe, and the United Arab Emirates to catalog and

digitize portions of its manuscript collection (Ghali, 2016: 314–315).

Libraries in the least well-off countries in the region—civil war zones such as Libya, Syria, and Yemen—faced challenges in maintaining basic operations, much less upgrading their technology. (Our survey received two responses from librarians in Yemen and none from Libya or Syria.)

Oil wealth has led to labor migration among librarians, as with educated Arab professionals overall (Hassan, 2010: 70–72; Richards and Martin, 1983: 462). Many of the libraries in newly wealthy countries, which had few trained librarians of their own, were established by librarians from less-wealthy Arab countries, as were the library and information science programs established to train local specialists. A significant portion of library staff in these countries still consists of expatriate Arabs, whose status as noncitizens leaves them less able to push for access and discoverability.

However, the panelists emphasized that material conditions were not the only factors at work. Wealthy Arab countries displayed differing levels of interest in participating in global library networks. The Qatar National Library, for example, partnered with the British Library to create the Qatar Digital Library, with the mission of "making a vast archive featuring the cultural and historical heritage of the Gulf and wider region freely available online for the first time" (Qatar Digital Library, n.d.). Other libraries in wealthy countries, by contrast, seemed less eager to share information about their holdings. One archival institution, which will go nameless, would not divulge whether it even maintained a catalog for internal purposes.

In addition, there are important library initiatives outside of the wealthiest countries. One such initiative is Egypt's construction of a new Bibliotheca Alexandrina, which describes itself as "a leading institution of the digital age" that aspires "to recapture the spirit of the original ancient Library of Alexandria" (Bibliotheca Alexandrina, n.d.). From its striking architecture to its state-of-the-art optical character recognition (OCR) procedures, the Bibliotheca Alexandrina became a leader in Arab information science within a decade of its establishment in 2002. It is one of the few libraries in the region that not only has its catalog online, but also links to full-text images of materials from its collection that are in the public domain.

Library leadership

In addition to material factors, the panelists expressed concern about unevenness in the selection and performance of library leadership in Arab countries. Too many library leaders are political appointees who lack library training, they said. One participant said that almost all of the library directors in his country fell into this category, including himself—he at least was an academic researcher in a field related to librarianship, he pointed out. Some library directors are retired military officers with little familiarity with libraries (Khalifa, 2012: 215). In the United States, by contrast, library directors are usually appointed from within the ranks of professional librarians (Harris-Keith, 2015, 2016; Jordan, 2012: 40). At many libraries, participants said, leadership positions are often replaced too frequently to engage in long-term institution-building. The resulting lack of continuity can demoralize library staff and make it difficult for strategic initiatives to be developed, approved, and seen through to completion.

In keeping with the survey comments about library leaders who seem to favor private interests over public interests, one panel participant gave the example of a library administrator who appeared to view the library's holdings as his personal collection, removing items for personal use with no record of having checked them out. According to colleagues, this administrator did not expect to be in his position for long and sought to make the most of his time in office. This sort of irresponsibility is extreme, and not representative of all library leaders in Arab countries, but it highlights the uneven qualifications of library leaders in the region.

Aside from occasional ethical deficiencies, the leadership at most Arab libraries is of a generation trained prior to the development of computerized library catalogs in the region. Like transitional generations of librarians elsewhere in the world (for example, Farooq et al., 2016; Yadav and Gohain, 2016), they have had to upgrade their own technical skills at the same time as they upgrade those of their organizations. Several participants admitted that they could still use additional continuing education on these subjects, although they noted that their computer competence was greater than some of their senior library colleagues who still did not use email. As a result of this transition, library leaders in Arab countries are in the difficult position of building systems that they are not particularly familiar with themselves.

According to participants, the leaders of Arab libraries have had to rely to a great degree on outside vendors to supply technological systems. This market has been dominated from the early years of library computerization in the region by Arabian Advanced Systems, a Saudi Arabian company founded in 1989. By 2003, AAS—now called Naseej—had a 73% market share in library automation in the region

(Khurshid, 2003). Naseej offers full-service packages for libraries including cataloging, search, and discovery software, as well as technical support, training for librarians, and other services, in addition to a non-profit subsidiary, the Naseej Academy, that offers workshops and continuing education for library leaders in the Arab region. Because of its market position, Naseej has played an even greater role in the promotion of computerized catalogs in Arab countries than the role played by specialized library technology companies in the West—in fact, Naseej has held the regional license for several of those companies.

Like Frederick Kilgore in Ohio, Naseej's founder, Abduljabbar al-Abduljabbar, envisioned and built region-wide computerized library systems. But Naseej is a commercial vendor, and there is no region-wide library association in Arab countries that engages in institutional collaborations along the lines of Kilgore's consortium model. Panel participants bemoaned the lack of interaction, much less cooperation, among the region's national library associations, some of which were more active than others. The region has two large library associations—the Arab Federation of Libraries and Information and the Special Libraries Association (Arab Gulf Chapter)—and some libraries in the region participate with international partners through the OCLC, the Arab Union Catalog, the Middle East Librarians Association (in North America), the European Association of Middle East Librarians, and the International Federation of Library Associations and Institutions. However, these groups have engaged in only limited collaboration with one another, and there has been no attempt to recruit libraries systematically throughout the region.

Preservation over access

For some libraries, the mission of preservation is a higher priority than the mission of accessibility, according to several participants. Participants also suggested that there is reluctance in some libraries to share information on their collections, out of concern that identifying these works publicly may expose them to theft, government seizure, or destruction. Material on sensitive topics, for example, may be withheld from catalogs that could draw unwanted attention from extremists or government officials.

Preservation is on librarians' minds in part because of tragic recent instances of the destruction of library and museum collections during civil conflicts in Iraq, Syria, and elsewhere in the region. More broadly, some Arab librarians do not entirely trust their patrons. In Morocco, for example:

[T]he most common word used for library in Arabic, *khazana*, has a meaning akin to a safe with its root verb meaning to store or safe-keep . . . . The internalization of this meaning has been reflected in the mentality in many Moroccan libraries up to now where keeping books 'safe' has often resulted in library policies that limit or inadvertently discourage patron access to collections, for example by not allowing patrons to remove books from the library or having very stringent borrowing policies. (Ahmed, 2016:41)

Many libraries in the region limit access to materials, operating with closed stacks or only allowing supervised access, with strict borrowing policies. Similar restrictions have existed in other countries, including Nicaragua, where librarians could not afford to replace material that went missing (Lepkowski, 1992); Nigeria, where librarians worried that patrons would damage books (Adewoye, 1992); and Turkey, where for decades librarians were held personally responsible for the cost of lost or stolen books (Kurosman, 1980: 176). Almost no libraries in the region participate in interlibrary borrowing, despite plans that date back to the 1980s (Khalid, 1996; Rehman, 1989; Siddiqui, 1996).

The emphasis on maintaining materials in a safe physical space may extend to concern over distribution of metadata and digital images beyond the walls of the library. Participants said that some library administrators may be hesitant to put their catalogs online because they consider the cataloging metadata to be proprietary. In addition, they said, some librarians worry that digitization degrades the value of the library's physical collection. This concern echoes the assessment of a researcher studying the digitization of manuscript holdings in Egypt:

One serious challenge is the resistance from curators and managers who are in charge of some manuscripts libraries or collections. They do not trust technology and digitization in particular. One of their major contentions with digitization is that there is a great possibility for forging a digital copy of a manuscript which might lead to fabricating part of Muslim history. Another reason to reject digitization projects, from their point of view, is the ownership and copyright issues of these manuscripts especially when it goes online and can be easily downloaded. (Ghali, 2016: 313–314)

From this perspective, safekeeping heritage requires keeping it hidden.

Conclusion

In the early 1950s, an overview of "library consciousness" in the Middle East identified some of the

same institutional challenges that our research discovered in the 2010s: a lack of coordination among libraries, limited opportunities for professional training, outdated methods of administration, few policies for loaning materials, and so little public information that in many libraries, "no one knows or has any means of ascertaining how much money is spent for library purposes, how many volumes are in the collections, or even the number of employees engaged in library service" (Thompson, 1954: 160–161). This may have been an unfair assessment—at least the comment about the number of volumes in each collection. A survey of 131 libraries in Arab countries in the late 1940s found that two-thirds had card catalogs that would presumably have allowed an accounting of collection size (Dagher, 1951). Nonetheless, an overview of Middle East libraries several years later identified several similar institutional barriers, including "unsatisfactory" bibliographic standards and a lack of coordination among libraries, plus an emphasis on preservation that "is inhibiting the advance toward a more dynamic concept of a library's *raison d'être* in keeping with the needs of contemporary society" (Holloway, 1959: 198, 206). A similar review in the 1980s concluded that the Middle East's "centuries-old tradition of library development tends to delay modernization of services, technology, and techniques" (Krzys et al., 1983: 105).

The persistence of such challenges over more than half a century may tempt some to invoke cultural explanations unique to the Arab region. However, the field of international and comparative librarianship has identified similar challenges in many cultural contexts. In any case, cultural explanations tend toward homogenizing essentialism. We have adopted the phrase "institutional barriers" to focus more narrowly on the challenges to discoverability at many Arab libraries.

The main finding of this study is that institutional barriers may persist even in the absence of resource and technological restraints, as in some of the wealthy Arab countries. Conversely, institutional commitment may overcome resource restraints. The correlation between material factors and institutional outcomes is not perfect.

Discoverability of the hidden heritage of Arab libraries depends also on the practices of library leaders. Through a survey of Arab librarians, we found unmet demand for online cataloging and other forms of international library collaboration. Such collaboration, respondents indicated, was too often thwarted by institutional factors, including inhospitable political institutions external to the library or a lack of commitment by library leaders. Several respondents even accused library leaders of undermining initiatives by monopolizing training opportunities and in effect privatizing resources that were intended to upgrade library services. Many respondents expressed frustration with their libraries' lack of participation in international networks.

Further discussion of these issues with two expert panels identified three possible causes for institutional barriers in Arab libraries. One involved inequalities of oil wealth, affecting the labor market for library professionals. In the countries with the most resources to devote to state-of-the-art libraries, the senior cohort of librarians is composed primarily of Arab expatriates who lack the status of citizens to push for information openness. A second factor involved the uneven qualifications and terms of office of library leaders, hampering long-term investments in technical infrastructure and technically proficient staff. A third factor involved concern that discoverability of library materials might make them vulnerable to loss or theft, leading some librarians to prioritize preservation over access.

These institutional barriers to discoverability may be frustrating to librarians and library users who expect greater commitment to information access in the digital age, but the challenges are not easily overcome. If they were, more than 15% of Arab libraries would have online catalogs.

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Notes

1. Country totals in the directory are correlated at the .62 level ($p < .01$) with the OCLC's estimates of the number

of academic and national libraries in each country (OCLC, 2016b).

2. A study of libraries in Egypt reported somewhat higher numbers—42 libraries with websites, including 24 with online catalogs (Khalifa, 2012: 204–205)—as compared with our totals of 29 and 13, respectively.

3. Survey respondents were from Algeria, Egypt, Iraq, Jordan, Lebanon, Morocco, Palestine, Qatar, Saudi Arabia, Tunisia, United Arab Emirates, and Yemen. Further information on the survey may be found in a preliminary working paper from this project (Kurzman et al., 2015). The full survey instrument is also available at the project website: http://melib.web.unc.edu.

4. Consistent with this comment, our review of online catalogs at Arab libraries found only one-third (46 out of 126) using MARC standards.

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Momentous moment: Rediscovering Korean history through digitizing private letters

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Abstract

The purpose of this paper is to provide an overview of the development of a digital archive for the Min Family Correspondence Collection of the University of Toronto Libraries, the first Korean historical manuscript collection in Canada. This strategic digitization project between the University of Toronto Libraries and the National Library of Korea accomplished the following: content analysis and annotation of manuscripts, metadata creation, and enhanced access to the resources. The results from this paper show that one of the crucial factors in successful digitization projects is building bridges between the two organizations as a partnership. Our main aim in this paper was to build a deeper understanding of how to develop a digital archive for Asian historical manuscripts and to explore how to improve the accessibility of rare historical records.

Introduction

Using information technology advances for preserving and accessing rare materials, many institutions such as libraries, museums, and archives have undertaken digitization projects. Over the years, libraries have engaged in numerous initiatives to add to their holdings, and with technological advances, more effort has been made to digitize in order to both to increase access, and to help with preservation efforts. These digitization initiatives have also had the added benefit of helping to strengthen relationships between libraries and the communities they serve. Thus, digitization allows the possibility for the discovery and use of rare and special collections to a greater extent than for general collections. Without

digitization, rare and special collections could remain obscure and hidden (International Federation of Library Association (IFLA), 2014).

According to *Taking Our Pulse: The OCLC Research Survey of Special Collections and Archives*, an OCLC report that provides a thorough, evidence-based appraisal of the state of special collections in the United States and Canada, only 15% of printed volumes are not in online catalogs, while 44% of

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archives and manuscripts are not (Dooley and Luce, 2010). In 2006, the Library of Congress (LC) organized a team of researchers to begin studying future bibliographic control and in 2008 published a final report, *On the Record: Report of the Library of Congress Working Group on the Future of Bibliographic Control*. The report recommends five items that the library should focus on in the future. Among them, the second recommendation involves accessibility of rare, unique, and special hidden materials. In particular, this recommendation suggests that cataloging should differ, depending on the type of rare material (LC, 2008).

Diverse manuscripts in different forms and languages have been produced in the past, and these are considered important foundations of information for countries' histories and cultures. A manuscript is any text, in handwriting, in any field of intellectual endeavor (Cornish, 1970). Ishvari (1993) defines a manuscript as a written document made by hand, in contrast to being printed or copied in some other way. Manuscripts exist in a variety of forms, languages and scripts, covering a wide range of subject matters (Sahoo and Mohanty, 2015). Historical manuscripts are valuable objects of cultural heritage, and digitizing this cultural heritage is a rapidly-expanding field that is crucial for preserving and maintaining rare historical records and leveraging future research by allowing easy access to and navigation of these documents from remote locations. Institutions across the globe are digitizing rare manuscripts in hopes of preserving them and making them available to researchers. In this sense, it is valuable to figure out how to develop a digital archive of historical manuscripts, and to explore how to expand the accessibility of rare historical records.

Considerable ongoing efforts for digitizing Asian historical manuscripts have been conducted in various parts of Asia at different times and in different settings. Haddad (2000) provides background on the development of the rare books and manuscripts collection at the National Library of Australia and describes collections of scarce and unusual works pertaining to the Asia-Pacific area. He states that the rare and special collections will provide an invaluable legacy to scholarship this century and beyond. Kumar and Shah (2004) explain the digitization of UNESCO project entitled, "The Memory of the World" that began in 1993 and the manuscript digitization pilot project, for rare and brittle books, entitled, "Down Memory Lane" at the National Library of India. The authors discuss in detail the process of digitizing manuscripts and present suggestions on various issues of manuscript digitization. As another example in India, Ramana (2005) provides an overview of the India's largest and old manuscript collections. In his paper, he presents the methods of digitization of manuscripts at the National Library of India and stresses the value of digital preservation. Lertratanakehakarn (2014) discusses the digital preservation and the organizations for creating, storing, and digitizing palm-leaf manuscripts in Thailand. The author addresses that the palm-leaf manuscripts should be preserved in the digital form for long-term use throughout their lifecycle, for the purpose of education, preservation, and research for future generations as the cultural heritage. This paper also examines the process of a digital preservation plan for palm-leaf manuscripts. Although there are many literature reviews discussing the digitization process of Asian rare manuscripts or the importance of digitizing Asian rare manuscripts, few works have appeared on digitizing projects of Asian rare manuscripts or Korean historical manuscripts in cooperation with international organizations. For this reason, we consider the elaboration of this topic as crucial and beneficial to society.

This paper intended to provide an overview of the development of a digital archive for the Min Family Correspondence Collection of the University of Toronto, the first Korean historical manuscript collection in Canada. The Min family is a well-known one in Korean history and included the following two famous historical figures from this family who had a significant influence on Korean history: (1) Queen Min (1851–1895) – wife of King Kojong (1852–1919), the 26th King of the Chosŏn dynasty, and (2) Min Yŏng-hwan (1861–1905), a civil minister and a patriotic martyr in the late Chosŏn dynasty who protested against the Ŭlsa Treaty (also known as the Japan–Korea Treaty), which deprived Korea of its diplomatic sovereignty and made Korea a virtual protectorate of Japan in 1905. For these reasons, original source materials on this family are especially worth preserving. Through this paper, we expect to build a deeper understanding of the nature of a digital archive for Asian historical manuscripts, and to explore the accessibility of rare historical records. In addition, most recent digitization studies have focused on the use of digitized data and open access. Therefore, we have concentrated on the digitization process itself. In particular, we have proposed a method to classify irregular manuscript types by using metadata and accession numbers, so this paper involved the components of metadata, as it turned out that the content of the document in the process of digitization was more political than had been expected.

The ultimate goal of the project was to provide a digital copy of a unique resource and easy access to valuable historical documents for both organizations – the University of Toronto Libraries, and the National Library of Korea. Thus, the major practical contribution of the present research is that it provides an empirical method for the actual job of the digitization process for Korean primary source collections or historical manuscript collections through cooperation between the two organizations. Therefore, many other projects in similar environments may infer similar implications from most of our findings, and this will allow them to design their digitization process accordingly.

Background of the Min Family Correspondence Collection

The Min Family Correspondence Collection consists of rare Korean manuscripts received by the University of Toronto Libraries in 2006 as a donation from Mr Min Sŏk-hong and his wife, Mrs Yun Kyŏng-nam. Min Sŏk-hong inherited the materials from his father, Min Kyŏng-hwi (1903–1978), who in turn inherited them from his mother, Yu Chin-gyŏng (1879–1973) (Kim and Lee, 2015: 4). The Min family included many government officials of high rank, including the Queen of Korea herself. Therefore, when donating these materials, the donors hoped that they would be used as historical data, even though the data was personal, to be made available to academic institutions and researchers.

The Min Family Correspondence Collection consists of 883 physical items (260 envelopes containing 623 pieces of correspondence). Most of the materials in the collection are letters, although there are also other types of materials, such as official gazettes and purchase and sale documents. The letters were all in similar envelopes and sheets, and the writing system used was Chinese cursive script that is not used in Korea nowadays.

Figure 1 shows the initial storage status of the Min family's historical manuscript collection. Currently, the archives are preserved in letter-sized (8.5" × 11") folders, and documents that do not fit into these folders are stored in oversize folders. These acid-free folders have unique identifier reference numbers and information sheets in acid-free archival boxes. Figures 2 and 3 show examples of the types of letters and envelopes in the collection.

The donors made the decision to donate the private letters to the library, even though they contained sensitive private information of the family, because they are valuable original period source documents that could be useful for scholars in fields such as local history, history of land tenure, rural sociology, and

Figure 1. Initial storage status of the Min family's historical manuscript collection at the University of Toronto Libraries.

family history. However, when the National Library of Korea annotated the digitized contents in detail, it was found that the collection mainly contains politically-related subjects, such as the Kapsin Chŏngbyŏn (also known as the *Kapsin Coup*) and political requests to the Min family, which was at the core of power.

Most of the letters were written between February 1884 and July 1885. The major historical event in that period was the Kapsin Coup. However, the letters themselves do not have dates (Kim and Lee, 2015: 14–15). A Korean scholar, Yŏng-ho Ch'oe describes the Kapsin Coup as follows:

> On the night of December 4, 1884, a small group of reform-minded Koreans staged a bloody coup to seize political power in hopes of instituting drastic reforms that would transform Korea into a modern state. However, unfortunately for Korea, these reformers only remained in power for three days, and their attempted coup ended in disastrous failure. This incident is known in Korea as the Kapsin Chŏngbyŏn, the political disturbance of the year Kapsin (1884). (Ch'oe, 1982: 109)

The letters mostly relate to important incidents and news of the affairs of the state at that time. A majority of the letters are addressed to Min Kwan-sik (1825–1886), the great-great-grandfather of the donor, Min Sŏk-hong. Some letters portray the tension of the Kapsin Coup. In particular, one letter sent by Ch'a Pong-il on 25 January 1885 (10 December, the 21st year of King Kojong) vividly describes public sentiment after the Coup, which shook Seoul. In addition, the sender adds to this sentiment by depicting the uneasy political situation through the analogy that entering the palace is akin to stepping on thin ice (Kim and Lee, 2015: 17).
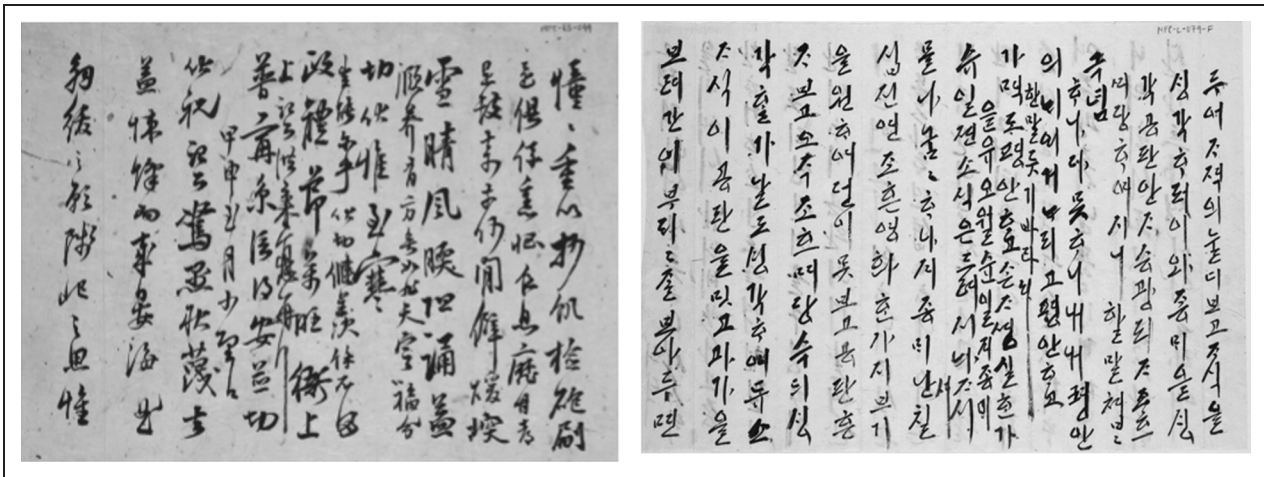
Figure 2. Sample letters.
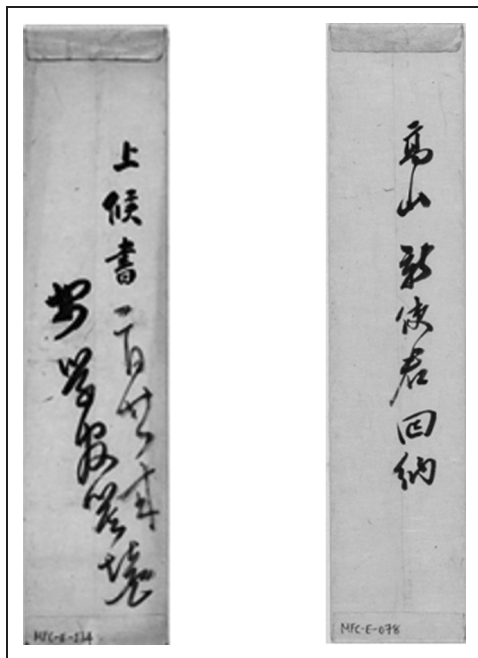
Figure 3. Sample envelopes.

These letters describing one of the most chaotic political incidents in Korean history are powerful and important primary sources for researchers. Letters, as private records, can carry a particular view of a historical event or period that may not be found in other primary sources, in addition to offering insight into the cultural landscape of the time.

This digitization project is a good example of adding value to the digitized collection by making the collection more useable through annotations.

Challenges to digitizing the Min Family Correspondence Collection

Organizations have developed practical guidelines for planning digitization projects (IFLA, 2014). The IFLA (2014) in particular developed strategies for planning and implementing digitization projects and published a set of guidelines titled, *Guidelines for Planning the Digitization of Rare Book and Manuscript Collections*. The guidelines made recommendations under the following eight key aspects: designing the project; selection of originals; workflow for creating the collection; metadata; display; dissemination, promotion, and reuse; evaluation; and long-term preservation of the digital collection. In particular, the guidelines encourage librarians and archivists to "leverage digitization projects to provide access to collections that have been hidden in the past" (IFLA, 2014). In the Min Family Collection digitization project, the guidelines were used as an essential reference guide for designing the process of the digitization project from the initial strategies and throughout the whole process.

Planning the digitization project

Developing a digitization project generally involves several steps, such as inspecting and preparing the materials for digitization, digitizing the material, and post-capture image processing and system ingesting (IFLA, 2014). Digitizing the Min Family Correspondence Collection was successful because the two project institutions thoroughly considered the above steps throughout the project.

For years, the University of Toronto Libraries had explored finding an external partner in South Korea to cooperate with in digitizing the Min Family Correspondence Collection – mainly in financial aspects and in analyzing the contents of the collection. After initial trouble in finding an appropriate partner for several years, in 2012 the University of Toronto Libraries approached the National Library of Korea. Through ongoing communication with the National

Library of Korea, the University of Toronto Libraries arranged a visit of a National Library research team consisting of rare material experts to conduct research on the University's rare Korean materials. Korean Studies collections overseas are rather limited compared to collections in other East Asian countries such as Japan and China. However, as the study of Korea in North America and other countries around the world has become more active, the importance of Korean materials as research sources for Korean Studies is growing. The National Library of Korea has been undertaking a project of examining, collecting, and digitizing Korea-related materials located overseas in order to preserve Korea's heritage (Lee, 2012). In addition, the National Library of Korea has already performed digitization projects in the United States with the Library of Congress, Columbia University, Harvard-Yenching Library, and Yale University Library. The materials digitized during this time were traditional stitched binding monographs. However, the Min Family Correspondence Collection at the University of Toronto consisted of envelopes and sheets. Therefore, the process of digitization for these rare and special types of materials is not an easy task in order to preserve them.

After reviewing the rare manuscripts, the National Library of Korea agreed to fund the University of Toronto Libraries' digitization of the collection, and to analyze the collection's contents. Before the two institutions signed the cooperative project agreement, representatives of the two parties spent eight months evaluating and negotiating project terms. During the negotiation period, they discussed the project schedule, workflow, and digitization standards, and the delivery of the digitized files. In this agreement between the two organizations, the following tasks were involved to create digital copies: (1) creation of a database for the resources, (2) verification of exact letters and envelopes, describing and recording anomalies, (3) scanning of each resource, (4) movement and storage of digital images to server, (5) creation of a metadata to link basic descriptions to images, and (6) editing and organization of files.

The two institutions agreed to cooperate according to their respective fields of expertise, and staff members of the two libraries communicated regularly to review the project's progress. During the life of the project, the National Library of Korea was responsible for funding the digitization project and publishing an annotated catalog of the Min Family's Correspondence Collection. The University of Toronto Libraries were responsible for organizing, implementing, and completing the digitization project to produce digital versions of the documents onsite, as well as transferring the scanned images to hard drive, sending the hard drive to the National Library of Korea, and creating core metadata. This international collaborative project has benefits for each party. For the National Library of Korea, it is valuable to have a digital copy of a unique resource, and easy access to valuable historical documents that would otherwise not be available to them or to scholars in Korean studies. In addition, it presented an opportunity to add unique resources to the University of Toronto Libraries' digital collection to support scholars and students in Korean Studies, and research at the university and in the community.

Digitization – registering accession codes

Based on an interview with the donors in 2006 by the Korea Studies librarian at the time, in developing a metadata structure for the Min Family Correspondence Collection, the University of Toronto Libraries first sorted the donated materials into two categories: (1) landlord and tenant farmer correspondence sets, and (2) personal letter and envelope sets. The donors strongly believed that most of the materials were letters between a landlord and tenant farmers. For each category, subcategories were created. For the landlord and tenant farmer correspondence sets, subcategories were: (1) envelopes with more than one letter in them, (2) envelopes containing both letters and inner envelopes that also contain letters, (3) letters with writing on both sides, (4) envelopes with writing on both sides, (5) letters without an envelope, and (6) envelopes without letters. For the personal letter and envelope sets, two subcategories were created: (1) a general personal collection and (2) personal letters without an envelope. In this paper, we explain how the accession number system was developed to best categorize materials, and report the findings from evaluating the digitization process by examining the quality and extensibility of mandatory metadata elements.

Subsequently, as a first step in creating metadata elements, the following core structural metadata elements were collected: box number, accession code, material type (letter or envelope), letter and envelope pairs, measurements (length and width), and additional notes (see Table 1).

Before considering the letters' contents, the University of Toronto Libraries determined that preparing the metadata based on physical characteristics was the most appropriate approach and developed an accession number system of unique identifiers that could be assigned to each item in the collection (see Table 2: Accession Number Reference Sheet). Each accession number was comprised of a three-letter prefix

Table 1. An example of the core structural metadata elements initially collected by the University of Toronto Libraries.

The Min Family Correspondence Collection	
Box No.	1
Accession Code	MFC – E – 001
Material Type	Envelope
Paired with letter(s)?	Yes ☑
	No ☐
Measurements	Length: 24.4 cm
	Width: 5.9 cm
Additional Notes	

("MFC" for the Min Family Collection), a hyphen, one letter to indicate the type of material ("E" for envelope or "L" for letter), and a three-digit material number: MFC – E – ### or MFC – L – ###. For envelopes and letters that belonged together, the material numbers had to match the envelope numbers.

In the category of the landlord and tenant farmer correspondence sets, six accession number types were created. After reviewing the National Library of Korea's brief summaries of each letter, it was realized that the initial two categories created – (1) landlord and tenant farmer correspondence, and (2) personal letter and envelope sets – were not appropriate because the letters had been written by various senders such as family members, relatives, friends, and villagers. Within the first category there are six subcategories. The first type is for letters with more than one letter in an envelope. When an envelope contains more than one letter, the letters are labeled with an extra alphabetic letter behind the code material number, and the alphabetic order ascends depending on the number of letters inside the envelope: MFC – L – ###A, MFC – L – ###B, MFC – L – ###C. For envelopes and letters that belong together, the material number must match the envelope number. The second type is for envelopes containing both letters and other envelopes when these inner envelopes also contain letters. The outermost envelope holding the entire set is called E1 (envelope 1). Any envelopes inside E1 have increasing numbers behind the E (e.g. E2, E3, etc.). This additional coding sequence is attached at the end of the whole accession code to indicate which envelope it is. The letters of the entire set all have this additional coding sequence at the end of their individual accession codes to indicate whether they are situated inside E1 but not inside E2, or if they originally belong inside the inner envelopes (such as E2, E3, etc.): MFC – E – ### – E1 (or E2) for envelopes or MFC – L – ### – E1A (or E2A) for letters. The third

type is for letters with writing on both sides. In this case, it is indicated in the code with an extra alphabetic letter F or B at the end ("F" for front side and "B" for backside): MFC – L – ### – F or MFC – L – ### – B. The fourth type is for envelopes with writing on both sides. When writing exists on both sides of an envelope, it is indicated in the code with an extra alphabetic letter F or B at the end: MFC – E – ### – F or MFC – E – ### – B. The fifth type is for letters without an envelope. Letters that originally came without an envelope are labeled with LS, where "L" stands for letter and "S" for single: MFC – LS – ###. The sixth type is for envelopes without letters. Envelopes that originally came without letters are labeled with "ES," where "E" stands for envelope and "S" for single. The accession coding for the personal letter and envelope sets followed a similar pattern, also shown in Table 2.

Digitization process

The entire digitization process took place from 1 April 2013 to 31 December 2013. Except for the physical scanning of the collection materials—carried out by the University of Toronto Libraries' IT Services— the University's Cheng Yu Tung East Asian Library, the material-holding library, performed all of the relevant project work.
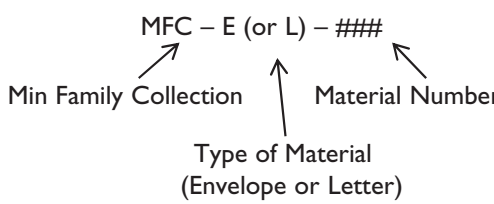
A total of 883 individual items were digitized, including letters and envelopes, generating 600 dpi, 24-bit color TIFF format scanned images and three types of JPEG files (thumbnails: 100 pixels on the short edge; small: 500 pixels on the short edge; and large: 1000 pixels on the short edge). Each complete object (letters plus envelopes) was assigned with a unique identifier and each scanned image was numbered sequentially (Kim and Lee, 2015: 23).

Designing metadata

The University of Toronto Libraries had no standard policy for cataloging Asian-scripted manuscripts, and therefore, before digitizing the collection, an outline of the basic descriptive elements needed for summary descriptions of the collection's contents was developed. Although the National Library of Korea did have basic standards for cataloging techniques and metadata elements for Korean rare books, there were no detailed elements and criteria for historical letters. Therefore, several related studies were reviewed to learn about dealing with metadata elements related to letters, such as Oxford University's Early Modern Letters Online (EMLO) project, and Stanford University's Mapping the Republic of Letters project, but it was difficult to find appropriate elements suitable for

Table 2. Accession number reference sheet. (Format of the Min Family Correspondence Collection's accession numbers)

Material format	Accession number	Description
General Format	Envelopes: MFC – E – ### Letters: MFC – L – ###	MFC – E (or L) – ### Min Family Collection — Material Number — Type of Material (Envelope or Letter) For envelopes and letters that belong together, the material number must match the envelope number.
Landlord and tenant farmer correspondence sets		
Letters with more than one letter in an envelope	MFC – L – ###A . B . C	When an envelope contains more than one letter, the letters are labeled with an extra alphabetic letter behind the material code number, and the alphabetic order ascends depending on the number of letters inside the envelope. For envelopes and letters that belong together, the material number must match the envelope number.
Envelopes containing both letters and other envelopes, when these inner envelopes also contain letters	Envelopes: MFC – E – ### – E1 (or E2) Letters: MFC – L – ### – E1A (or E2) . E1B . E1C .	Envelopes can contain more than one letter and contain envelopes that contain letters. The outermost envelope holding the entire set is E1 (envelope 1), and any envelopes inside E1 have increasing numbers behind the E (E2, E3, etc.). This additional coding sequence is attached to the end of the whole accession code to indicate which envelope it is. The letters of the entire set also all have this additional coding sequence at the ends of their individual accession codes to indicate whether they are inside E1 but not inside E2, or if they originally belonged inside the inner envelopes (such as E2, E3, etc.).
Letters with writing on both sides	MFC – L – ### – F MFC – L – ### – B	When writing exists on both sides of letters, it is indicated on the code with an extra alphabetic letter "F" or "B" at the end (F for front and B for back).
Envelopes with writing on both sides	MFC – E – ### – F MFC – E – ### – B	When writing exists on both sides of an envelope, it is indicated on the code with an extra letter F or B at the end (F for front and B for back).
Letters without an envelope	MFC – LS – ###	Letters that originally came without an envelope are labeled with "LS," where "L" is for letter and "S" is for single.
Envelopes without letters	MFC – ES – ###	Envelopes that originally came alone without letters are labeled with "ES where "E" is for envelope and "S" is for single.
Personal Letter and Envelope Sets		
General Personal Collection format	Envelopes: MFC – PE – ### Letters: MFC – PL – ###	Accession coding for the personal letter collection is PE or PL. The code "P" indicates that a letter is personal in nature. For envelopes and letters that belong together, the material number of letters and envelopes must match.
Personal letters without an envelope	MFC – PLS– ###	Personal letters that come without an envelope have the acronym PLS in the code where "P" stands for personal, "L" is for letter, and "S" is for single.

Table 3. Metadata elements of the Min Family Correspondence Collection.

Metadata elements

- Letter
  - Container information (box number, folder number)
  - Accession code
  - Paired with an envelope? Yes/No
  - Measurements/dimension: Length and width
  - Number of pages
  - Annotation
- Envelope
  - Container information (box number, folder number)
  - Accession code
  - Paired with letter(s)? Yes/No
  - Measurements/dimensions: Length and width
  - Types of manuscript
- Recipient
- Sender
- Relationship (Recipient and Sender)
- Relationship classification: (e.g., Family, Friend, Other)
- Date sent
- Language: Classical Chinese or Korean
- Provenance
- Annotation
- Biographical note

Korean letters. Therefore, the University of Toronto Libraries identified and designed appropriate metadata elements for Korean letters by referring to the elements of International Standard Bibliographic Description (ISBD) as shown in Table 3.

Since digitization has become a necessity for museums, libraries, and cultural institutions as one way of enhancing public access to materials, assuring the quality of metadata is an essential part of any digitization project (Diao and Hernández, 2014). Therefore, the metadata elements in this collection were evaluated to build a reliable digital collection.

To organize and manage digital objects, libraries and cultural institutions have developed various metadata standards, which are defined as structured encoding tools that describe elements related to the provenance of the data (Riley, 2017). There is a wide range of metadata standards with different focuses by discipline, international standards, and many other pertinent aspects of data sets. Institutions adopt metadata standards based on their local needs, and may group elements in various ways to emphasize themes or functionality unique to their environments.

The quality of metadata that describe digital objects is considered key to successful and effective access to the resources. Many researchers have explored metadata quality measurement in digital projects and identified criteria for assessing the quality of metadata (Guy et al., 2004; Moen et al., 1998; Park, 2009; Statistics Canada, 2002; Stvilia and Gasser, 2008; Thomas and Hillmann, 2004). The quality of metadata records used in US federal agencies' implementation of the Government Information Locator Service (GILS) was evaluated through quantitative and qualitative research methods based on three general criteria, namely: accuracy, completeness, and delineation of information resource type (Moen et al., 1998). Six dimensions of information quality as criteria for assessing metadata quality were presented as follows: relevance, accuracy, timeliness, accessibility, interpretability, and coherence (Statistics Canada, 2002). In the library community the following criteria for evaluating metadata quality were presented, namely: completeness; accuracy; provenance; conformance to expectations; logical consistency; coherence; timeliness; and accessibility (Thomas and Hillmann, 2004). Furthermore, an information quality framework was proposed using the three quality dimensions of relational precision, intrinsic naturalness, and informativeness (Gasser and Stvilia, 2001). One study provided an overview of the present state of research on metadata quality, and the authors concluded that the three most important metadata quality criteria are accuracy, consistency, and completeness (Park, 2009).

Based on this literature review, we determined that the most commonly used criteria for assessing metadata quality are accuracy, completeness, consistency, provenance, timeliness, accessibilities, and delineation of information resource type. Based on these identified criteria, we examined the quality of metadata elements used for the Min Family Correspondence Collection, aiming to enhance the quality of metadata and improve the discoverability of the collection.

For this project, library professionals with extensive experience in handling Asian historical materials (particularly those written in Chinese characters) or creating metadata in the United States, Canada, France, the UK, and South Korea evaluated the metadata elements in the Min Family Correspondence Collection. Ultimately, eight participants completed the evaluation sheets. Following the assessment, we made comments and suggestions regarding overall impression, accuracy, and completeness of the metadata elements, as well as any special features or uniqueness of the elements. The assessment outcomes showed that

Table 4. Recommended metadata features.

Recommended metadata features
• Letter
○ Container information (box number, folder number)
○ Accession code
○ Paired with an envelope? Yes/No
○ Measurements/dimensions: Length and width
○ Number of pages
○ Annotation
• Envelope
○ Container information (box number, folder number)
○ Accession code
○ Paired with letter(s)? Yes/No
○ Measurements/dimensions: Length and width
○ Types of manuscript
• Recipient
• Sender
• Relationship (Recipient and Sender)
• Relationship classification: (e.g., Family, Friend, Other)
• Date sent
• Language: Classical Chinese, Cursive Script (Chinese) or Korean
• Provenance
• Annotation
• Biographical note
• Physical note*
• Subject*

* is a new element.

overall, the collection's metadata quality was appropriate.

Based on the evaluation, we added the following three new metadata elements to the existing metadata set: (1) a physical note to describe the color of the paper or seal information if any and (2) subject, which we considered important for both browsing and retrieval. Table 4 shows the revised metadata set with these new additions.

These elements did not include all the information that might be beneficial to a researcher, but in developing them, we used the summary descriptions as the preliminary records, with the possibility of expanding the descriptions in the future. The unavailability of annotations or translations of the letters, which are mostly written in cursive Chinese script, was a key limitation. In South Korea, very few people can read Chinese cursive script. One of the terms that the two organizations had agreed upon, was that the experts at the National Library of Korea would annotate the digitized material. Since there was no available expert at the University of Toronto Libraries who could

translate the contents of the letters when the project institutions were preparing the metadata, they considered this type of collaboration the best approach. After the digitization was complete, the National Library of Korea went through the digitized material to create brief summaries for each item.

In this project, the most important and time-consuming task was to annotate the contents of the manuscripts which were written in Chinese cursive script. In particular, a professional expert was required to read the Chinese cursive script for this job, and to understand the historical background of Korea. Since there were few scholars who could read Chinese cursive script in Korea, the work was carried out over two years, from 2014 to 2015. Through this lengthy period of work, the project partners were able to come to understand the precise time and contents of the manuscripts as they were written.

Open access to the collection through digitization

Once digitization was completed, the University of Toronto Libraries delivered all digitized images to the National Library of Korea. The National Library undertook the analysis of the contents based on the digitized images and metadata provided. The National Library of Korea is authorized by the University of Toronto Libraries to load the contents of this digital file onto its local web sites and/or databases to make the contents of this project freely accessible to the citizens of Korea. After the National Library of Korea completed its examination and interpretation of the contents, its staff added the collection and its bibliographic information to the library's Korean Old and Rare Collection Information System (KORCIS) (see Figure 4). A union catalog of rare Korean books and manuscripts, including records from 60 Korean institutions and 42 foreign institutions, KORCIS contains over 450,000 bibliographic records and provides access to over 43,000 full-text images. It is constantly being enhanced with new bibliographic and full-text image data. The digitized Min Family Correspondence Collection in KORCIS provides instantaneous access to scholars and researchers in Korean Studies.

Discussion and conclusions

Many historical books, manuscripts, and other personal documents that may not have been recorded, but circulated among the people, have important value as primary sources for historical research. In particular, personal letters exchanged between individuals may never have been seen by anyone contemporary, and thus are valuable resources for learning about historical customs and ideologies from a
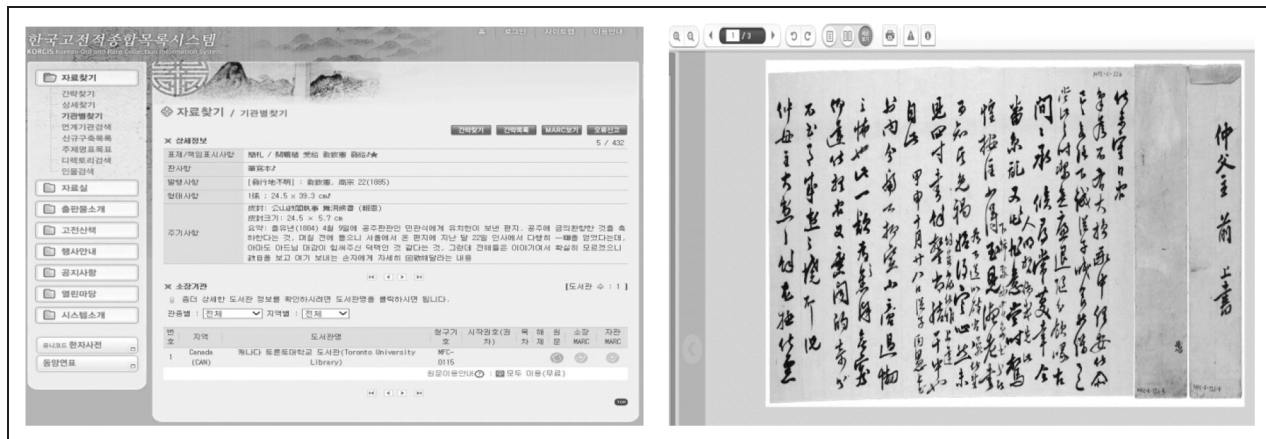
Figure 4. Bibliographic record and image of the Min Family Correspondence Collection on KORCIS.

distance. Thus, beyond being personal records, the manuscripts of the Min Family covered in this paper are worthy records of Korea's political issues.

In this paper, we presented an outline of our digitization of the Min Family Correspondence Collection, consisting of rare Korean manuscripts. Through the digitization project undertaken by the two organizations, they identified the content of the collection, completed the creation of the metadata, and greatly enhanced access to the resources. In addition, the role of experts in the process of digitizing rare Asian materials, and in creating the metadata was discussed. Before beginning this digitization project, the manuscripts of the Min Family, the first Korean archives in a Canadian library, were not available as research data, a common problem with rare Asian manuscripts.

Accordingly, the results of this project have several implications. Firstly, private letters as primary sources can provide an intimate glimpse into the effects of historical events on the lives of individuals who experienced them firsthand. In addition, if these letters were never intended to be read by anyone other than their original recipients, their contents may be more candid and revealing. The letters of the Min Family are in this category, and therefore, they provide an insight into the events, politics, customs, and thoughts of the late Chosŏn era. As the letters addressed to Min Kwan-sik were written mostly between 1884 and 1885, during Min Kwan-sik's tenure as County Magistrate of Kosan (Chŏlla province) and Chief Clerk of Kongju (Ch'ungch'ŏng province), this correspondence collection is considered to be an important resource providing a window into Korean society during this period. Most of the letters are, in fact, asking for favors involving the civil service exam and requesting official positions, reflecting the social milieu – and corruption – of the late Chosŏn

dynasty (Kim, 2016). Moreover, the letters are especially valuable primary sources because they are from the Min Family, who were at the center of political power during the turbulent late 19th century in Korea. The digitized collection is enabling historians to understand political and societal trends of the day, as well as the social networks of the politicians, government officials, and literati in the late Chosŏn dynasty.

Secondly, the strategic cooperative efforts of the two project parties in this partnership – the University of Toronto Libraries and the National Library of Korea – to digitize and analyze the collection, are noted as important factors in its success. The ultimate success of any partnership depends on the available human and financial resources. With the National Library of Korea's funding, the University of Toronto Libraries was able to embark on digitizing the correspondence collection, and to arrange the contents for analysis by the Korean classics experts at the National Library of Korea. In addition, the National Library was able to enhance its union catalog of rare Korean books and manuscripts, KORCIS, by adding the digitized contents and making them available to the public as easily and completely as possible. Thus, this paper provides a model for a successful strategic partnership.

Another noteworthy accomplishment of the digitization project is the Korean annotations to the digitized contents. The project efforts enabled Korean Studies researchers to effortlessly understand the contents written in Chinese cursive script, which was useful because the number of people in Korean Studies that can read such cursive script is extremely limited. For this research, we also evaluated the current metadata elements used by the University of Toronto Libraries and further developed the quality of the metadata based on the assessment outcomes.

Finally, the results of this paper contribute to the field as a whole by sharing the project institutions' experience as a case study for processing Asian-script historical manuscripts in the West. In other words, this paper can be a very important example for collaborative projects between different countries or institutions in order to digitize Asian-related materials located in other countries. It is hoped that, in the process of such research and digitization, institutions and researchers may be able to use the case study presented here to work together and share information more effectively.

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Open-book management in libraries: A case study of Bibliotheca Alexandrina

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Abstract
The study aims at defining the requirements of applying open-book management and showing the stages and steps to apply this new management methodology in different types of libraries. The researcher selected Bibliotheca Alexandrina as a great culture minaret to measure the degree of practicing open-book management from the point of view of its employees in order to identify the constraints that limit the full application of open-book management in the library.

Introduction

Human resources management (HRM) is currently an important and necessary field since it revolves around human capital that is responsible for the success and failure of organizations. Leadership practices and communication styles within libraries continue to evolve and are seen as critical to the continued growth and development of libraries as they encounter new organizational and societal challenges (Matarazzo and Pearlstein, 2016). Open-book management (OBM) is a contemporary management methodology, simple in its requirements yet profound in its effects (Schuster and Carpenter, 1996); it supports elements such as self-confidence and creativity, promotes independent thinking and an initiative-taking spirit, and creates a democratic working environment, all of which are vital to the rapidly changing conditions that we are currently living in.

OBM is an effective change method since it eliminates many problems affecting management in the Arab world (Al-Sharkaoui, 2010). It involves a number of management practices that are compatible with the requirements of this modern era. These requirements rely on OBM's disclosure and openness essentials that depend on free and open information sharing without the constraints of bureaucracy and centralization, and the availability of opportunities for continuous development inside enterprises (Melhem, 2006).

The OBM concept in libraries

OBM means disclosure of what happens in the library for employees, where management is working in a glass house open to all workers; i.e. there are no secrets or private information but all workers in the library are partners in information. Information is power in itself and it gives confidence to the employee that the library management does not work secretly (Melhem, 2006).

The OBM management approach maintains its continuity because it nurtures the spirit of loyalty and commitment that motivates library workers to faithfully perform their jobs and achieve the library's objectives (Shaker, 2007). It is a modern management philosophy, and its basic idea is to transform the staff in the library to true work partners via sustaining work ownership mentality rather than job mentality. This happens through an integrated scheme of activities and processes founded on practicing information sharing and decision making to realize solidarity between library management and workers and achieve the organization goals (Harb, 2011).

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Table 1. A Comparison between traditional management and OBM.

No.	Traditional management	OBM
1	Information is power	Information is a means of communication
2	There are barriers between the manager and his subordinates	Relationship between the manager and his subordinates is strong and effective
3	Difficult for employees to express their opinions	Freedom of opinion and open discussion
4	Managers tell employees what, how and when to work	Generate and empower employees' latent energies, giving them some kind of independence and freedom of action
5	Numbers are in an open book	Numbers are a in a closed book
6	Job anxiety	Job security
7	Rules combined with punishment	Red lines mean advice
8	Limited responsibility	Wide responsibility
9	Lack of attention to human relations	Improved human relations
10	Leaders are from upper levels	Leaders are at all levels
11	Communications are limited	Networking
12	Low spirts	High spirts
13	Self-control	Control limited to senior management only
14	An environment of suspicion	An environment of trust

OBM starts out from traditional management strategies, and this is evidenced in the comparison between traditional management and OBM shown in Table 1.

Table 1 shows the importance of the OBM approach in the treatment of many management problems. The usage of OBM is no longer an administrative luxury, and we can say it is mandatory for libraries that seek to seize initiative taking and competitiveness. OBM helps bring out the potential energy of library staff members and motivate them towards achievement and excellence, which aims to contribute to employee dedication, involvement at work and fully bearing responsibilities to achieve the library's goals.

OBM principles

OMB consists of various core principles that are outlined in the literature. These principles are enumerated below as 13 distinct characteristics:

1. Proposals come from base to summit: when members of the organization understand numbers and statistics are related to the work of the organization, everyone starts to imagine a performance scenario from his point of view to improve these numbers for the benefit of the organization, and then proposals are formulated and sent to senior management (Schuster and Carpenter, 1996).

2. Administrative clarity: the organization should disclose its administrative procedures and processes by clarifying the reasons for administrative decisions related to all its activities or related to the interests of human resources (Harb, 2011).

3. Management is in the service of employees and the employees are not in the service of the management (Fouad, 2012).

4. Discuss all the organization's problems and obstacles openly with employees which enhances transparency and credibility and also sustains employee responsibilities toward problems (Al-Hazli, 2015).

5. One of the important tools of the open-book approach is motivation. Motivating and rewarding employees make them behave as owners of the organization (Schuster and Carpenter, 1996).

6. Everyone's talents and energies are geared up to work in the same team (Lloyd and Case, 1998).

7. The OBM approach converts the planning process into a democratic behavior (Schuster and Carpenter, 1996).

8. Activation of self-monitoring among workers and developing the spirit of mutual trust between employees and managers in the organization (Al-Kurdy, 2011).

9. Applying an open-door policy between managers and employees keeps employees closer to the higher management and develops the spirit of harmony and cooperation (Klein, 2012).

10. Open-door policy allows employees the opportunity to control their performance to a great extent (Melhem, 2006).

11. Creating a healthy work environment based on three axes: satisfying employees, objective follow-up and spreading team spirit (Harb, 2011).
12. Accountability in the sense that everyone is accountable and no one is exempt from responsibility (Al-Sharkaoui, 2010).
13. Protecting anyone who finds work deviations, which implies the necessity of keeping secure the employee who reveals any administrative irregularities or personal interests (Harb, 2011).

Literature review

The term open-book management (OBM) has been accredited to John Case who began using it in 1993 to refer to this business approach (Aggarwal and Simkins, 2001). It was publicized by Jack Stack's community center at Springfield Remanufacturing (Buhler, 2010). Since then, countless organizations have opened their books and engaged their employees in understanding the critical numbers with positive results to their bottom lines. Although the original goals of OBM were improving profitability and productivity, organizations have realized other benefits from the practice. These benefits include improved employee satisfaction, engagement, retention, motivation, innovation and corporate sustainability (Broughton and Thomas, 2012).

Due to the success of the open-book approach, it has been addressed in many fields of study. However, very few studies have addressed OBM in the libraries sector. The following are some studies related to OBM in public sector and service organizations.

A study by Al-Awadi (2005) aims to provide a proposed model for the OBM approach that could be applied in the Ministry of Health in the United Arab Emirates to achieve effective change. One of the most important recommendations of the study is the need to empower employees through sharing power and responsibility, giving them the freedom to make decisions, and rewarding them for outstanding performance.

A study by Buhler (2010) confirms that OBM has been one of the latest management techniques and clarifies its 10 principles. It also states that OBM tends to focus more on reasons. Going beyond the more traditional management methods, OBM helps employees understand why they should be concerned about their business' performance. It helps employees make sense of what is happening and care about the success of their organization.

A study by Tohamy (2013) aims to identify the appropriate organizational and behavioral environment elements to apply the OBM approach in the local administration units of the Al Sharqia governorate in Egypt. One of the most important findings was that the organizational and the behavioral environment in the local administration units is not conducive to applying OBM methodology. There are many deficiencies and shortages in the requirements needed to apply OBM such as employees' weak empowerment, a fragile incentives system and sharing in decisions. The study confirmed that when OBM methodology is applied, employees in all the different low and medium administrative levels as well as the upper management level care about work success and developing performance.

The study by Salem et al. (2012) shows the role of OBM in improving the performance of the technical secondary school in Egypt and proposes procedural recommendations to activate the OBM approach in the management performance of technical secondary schools. One of the most important recommendations of the study is enabling flow of information and communication and the management's greater adoption of the delegation policy.

Al-Mutairi (2013) aims to clarify the relationship between the OBM approach and job satisfaction of workers in an oil company in Kuwait. One of the most important results of the study is the existence of a statistically significant relationship between the application of OBM and increasing job satisfaction of workers in this company.

A study by Darboosh (2015) uncovers the role of empowerment in developing intellectual capital. The study makes it clear that empowerment falls under the umbrella of OBM which encourages employees to propose ideas that contribute to maintaining the competitive position of the enterprise. The study also shows that empowerment is an important requirement for having qualified staff who deal with different problems. It also motivates staff to show permanent contribution and continuous loyalty to the enterprise.

It is clear from the foregoing that many studies addressed the application of OBM in different sectors such as education, oil, health and the business sector. Despite the importance of this management approach which has been proved in previous studies on different institutions that adopted it to show that the integrated application of this administrative approach leads to improved performance and a high level of achievement of the institutions' objectives (which we will discuss in detail later), OBM has not received the same attention by researchers who are working in the library and information sector. Through the review of relevant literature on this subject in many Arab and international databases, it appears that there is a gap in both the Arab and international intellectual production on the topic of OMB in libraries. No one

single study has addressed this topic in the domain of libraries. The researcher hopes that this study contributes to bridging a large gap in intellectual specialized production in the field of libraries.

Requirements of applying OBM in libraries

Libraries that seek to adopt OBM must realize the intrinsic force inherent in it, which ensures effectiveness of performance and continuation of quality improvement operations. This approach depends on the hidden potential in the working staff of the library (Schuster and Carpenter, 1996). By applying an OBM approach to libraries, the library staff becomes more aware of the library and much more empowered and willing to share at work (Buhler, 2010). In order for libraries to adopt this new management approach, a number of requirements should be available as follows.

Numbers disclosure

Numbers disclosure means disclosing the numbers at the library to its employees whether these numbers are related to library budget or to the performance of its different activities so that important numbers are not exclusive to a few managers but open to all the library staff. Therefore, the responsibility of achieving numbers automatically become the responsibility of all the library staff (Fetterhoff and Voelked, 2006). This principle creates an open library organization through the publication of significant numbers, educates employees on how to estimate the effects of their actions on these numbers and makes them responsible for improving these numbers (Abu Bakr, 2004). Every number tells the story of an individual's or a group's performance in the library and describes everyone's efforts (Schuster and Carpenter, 1996).

Increased knowledge and awareness of numbers provides employees with a greater meaning of what they are doing, where every employee decides his role in moving these numbers up or down (Al-Mutairi, 2013) and then the library staff develops "numbers sense" where they can see through it their roles in influencing the performance of the library. Critical and significant numbers that show the results and achievements of the library should be published, circulated and made accessible to all employees (Matar, 2008).

Flow of information and communication

The flow of information and its circulation among members of the administrative organization is one of the pillars for establishing the OBM approach (Al-Mutairi, 2013). Information is an important tool that an employee depends on in the decision-making process and in solving work problems. Without correct or new information, no employee can act freely and competently because information grants the confidence to act properly (Melhem, 2006). Establishing an open system in the library that constantly and effectively connects the director and all managerial levels helps in exchanging views and participates in decision making (Al-Qadi, 2006). Activating information and communication flow in different sections of the library, whether vertically, horizontally or diagonally, leads to a super speed in decision making and problem solving in the library departments. This also plays a key role in prevention of rumors, monopolization of information or negative and inappropriate exploitation of information by any administrative level in the library (Melhem, 2006).

There are many managers working within traditional management systems who believe that information is power and therefore prefer that their communication with the staff is limited to the least amount of information in order to maintain this power, which results in silence on many problems such as employee non-compliance and confidence shaking. When library staff are isolated, it is difficult for them to have a clear and more comprehensive vision over their work (Buhler, 2010).

One of the OBM pillars is that the library director innovates new ways of dialogue with the staff to discuss the library issues such as informal meetings where informal communication between different administrative levels helps in achieving regular and mutual interaction without formal barriers. Therefore, meaningful and frequent meetings between different administrative levels is necessary to infuse the spirit of enthusiasm and transfer the library's message and objectives so that the library staff adopt them correctly (Geddi and Brahima, 2015). Open communication is one of the fundamentals of staff motivation. When the library director honestly and openly discusses problems with the staff members, they realize that they are listened to, a solid relationship of confidence between the parties is established, and this reduces the spread of rumors and misinformation.

Supporting innovation

One of the competencies of the information specialist in the 21st century is the ability to think creatively and innovatively, i.e. regularly searching for new ideas inside and outside of the library domain to anticipate the future (Abels et al., 2003). The OBM approach depends on providing an innovation-supportive climate for employees and motivating them towards the realization of innovation and creativity at work

(Fetterhoff and Voelked, 2006). It also creates a shared vision among employees and allows everyone the freedom to experiment and discover new things; further, it deprives employees of the fear of error or failure, and frees their creative energies and abilities. Herein lies the importance of OBM that helps to formulate an innovation-supportive climate, which constitutes the vocabulary of the language of the future (Al-Maqrum, 2016). OBM helps in creating a supportive environment that stimulates individuals' creative thinking (Buhler, 2010).

Innovation and creativity depend on staff dedication and true will to achieve the library goals successfully, which cannot be achieved without the application of the OBM approach. OBM does not only use verbal stimulation to employees, as some of the traditional management approaches do (Schuster and Carpenter, 1996), but rather it stimulates employee motivations squarely through four combined factors as follows (Shaker, 2007):

- Bonuses: financial incentives have a high impact on pushing employees to increase their performance and continuation of work.
- Moral appreciation: a human is a passionate creature, curious to hear a word of appreciation and gratitude if he accomplishes an achievement or produces an outstanding performance.
- Work supportive climate: it has a role in characterizing the employee's performance.
- Participation: workers seemingly become participants in management.

OBM helps in creating a supportive environment that stimulates individuals' creative thinking (Buhler, 2010).

Empowerment

Empowerment is one of the contemporary organization tools because it allows the organization to use the individual's best thoughts and efforts to achieve its goals (Zhaher, 2012).

Empowerment gives workers the rights, responsibilities and freedom to perform work in their own way without direct involvement from the management, while providing them with all the resources necessary to work in an appropriate environment that qualifies them professionally and behaviorally to perform the work with absolute confidence (Debla and Amri, 2016).

Zhaher (2012) indicates that the OBM approach provides an environment that enables, supports and empowers employees to take responsibility and risk as well as building friendly relations between superiors and subordinates and between staff and their peer

colleagues based on respect and appreciation. This helpful environment is positively reflected in the effectiveness of the empowerment of employees. Self-enthusiasm is generated accordingly among employees to improve levels of performance in the library (Geddi and Brahima, 2015). The employee behaves as if he owns the library, and this contributes to the continuous improvement process and the achievement of the library goals (Saud, 2015)

There is a misconception that delegating authority is synonymous with empowerment, but in fact, they are different. Delegating authority means delegating part of the rights to others to facilitate the execution process. This means that it is a temporary status, which expires at the end of the delegated task. This also allows the employee only a modicum of information that hardly helps him to perform his tasks. The responsibility for the results is dependent on the delegator not the delegated person. Empowerment grants individuals a decision-making authority so that they become responsible for the results, and information is shared in common between management and workers (Al-Baradei, 2009). There are three types of empowerment (Geddi and Brahima, 2015):

- Virtual empowerment: this refers to the employee's ability to express opinion and to clarify views over work and activities performed in the library.
- Behavioral empowerment: this refers to the employee's ability to work in a group to solve the problems facing the library.
- Results-oriented work empowerment: this refers to the employee's ability to make improvements and changes in work performance techniques in a way that leads to increased effectiveness of the library.

Trust is closely linked to empowerment because it is the basic requirement in the context of change from reliance on control and monitoring to reliance on information, knowledge, promoting efficiency and granting individuals more freedom and independence (Al-Azab et al., 2011).

The importance of applying OBM in libraries

There are many features of OBM in libraries as follows (Fouad, 2012):

1. It helps in providing an appropriate climate for creativity and innovation.
2. It improves performance and raises the level of achieving goals pursued by the library.

3. A sense of empowerment and freedom of action enriches the employee's self-enthusiasm that improves work in the library.
4. It gives a general feeling of public interest through a shared sense of responsibility towards the results and numbers that have become clear for all library staff.
5. It raises the efficiency level of the communication process between all departments in the library.
6. It develops the spirit of loyalty and belonging of the library employees.
7. It supports coherence and integration between sections of the library.

Obstacles to applying open book management in libraries

Many literature resources agree on a number of parameters that limit the application of OBM in libraries (Al-Hazli, 2015; Al-Shemari, 2009; Harb, 2012):

1. the spread of administrative corruption;
2. prevalence of personal interests over public ones;
3. management threats;
4. prevalence of bureaucracy;
5. bad choice of administrative leaderships;
6. hiding negatives and focusing on the exaggerated positives.

The role of OBM in enhancing job satisfaction

OBM plays a major role in achieving human resources job satisfaction in different organizations (Qamon, 2015) despite factors affecting job satisfaction for employees in libraries. Lima's study (2017) indicates that the communication and decision-making process is one of the most important dimensions that affect workers and lead to work frustration or dissatisfaction.

OBM is one of the ways to enhance corporate loyalty among workers and there is a strong relationship between loyalty and job satisfaction since loyalty is one of the outcomes of job satisfaction (Haji, 2012). The goal of job satisfaction is to win loyalty, and the goal of loyalty is the relentless pursuit by the staff to achieve the goals of the library (Lima, 2017).

Stages of application OBM in libraries

In order for a library to apply an OBM approach, the following stages must be completed (Al-Sharkaoui, 2010; Melhem, 2006; Salem et al., 2012).

Phase 1: Planning

This phase involves developing an annual performance plan and a performance assessment plan, as follows:

- Developing an annual performance plan that includes identifying the library goals and determining the volume of provided services, number of required activities and the funding budget. All the employees who are thinking about ways to achieve this plan participate in developing it, and then transfer these ideas into numbers recorded in the plan in preparation of converting numbers to the facts.
- Developing a performance assessment plan including numbers from the annual plan and determining them serves as a performance assessment tool because numbers represent objectives that the library seeks to achieve and therefore these figures contribute in performance assessment. A regular calendar plan should be set, and this may be weekly, bi-monthly or monthly.

At the planning stage, the following should be considered:
- preparation of incentives programs to support employees and encourage their engagement;
- restructuring of communication systems to ensure flow of information.

After the completion of plans and approving them, these plans should be published to various sections and departments in the library so that the responsibility to achieve this plan goes to the minds, consciences and sentiments of the employees whatever their administrative responsibilities in the library. Everybody feels the desire to achieve the agreed figures and prepares for their work to be evaluated based on laid down figures and waits for regular meetings to discuss results and improve performance.

Phase 2: Starting up

At this stage, staff members in every library section meet to determine how to achieve the numbers or goals that have been agreed upon in the plan. Free movement is guaranteed to all staff members to work as they decide. The ability to make decisions related to their jobs, in order to reach what has been put in the annual plan, is also given to staff members. Every individual in a team starts to perform his task in coordination and integration

with all other teams in the library to achieve significant achievements.

Phase 3: Assessing results

At this stage, achieved numbers are compared to those set out in the annual plan to determine the degree of congruence and the differences then the causes and factors that led to these differences are discussed during meetings to discuss the treatment of the causes of these negative factors and areas for improvement and development.

Study problem

In Egypt, implementation of OBM methodology has become mandatory in particular after the 25 January 2011 revolution, and after the emergence of a direct approach to strengthen administrative integrity, transparency, accountability and to combat various types of corruption. OBM is one of the evolving administrative concepts that all information organizations should adopt due to its importance in bringing about a successful management style that helps to formulate a suitable environment for improving performance and to raise the level of goal achievement at information organizations.

Undoubtedly, increasing library employees' performance, achieving their job satisfaction and utilizing their human potential are closely related to applied management style, which negatively or positively influences performance. Therefore, various studies (Bassiouni, 2017; Lloyd and Case, 1998; Shaker, 2007) recommend the necessity of applying OBM in all organizations to improve the performance of the employees and the organization.

Bibliotheca Alexandrina is a multi-roles cultural minaret at the local, regional and international levels. It is not a mere library but a cultural and educational complex and it has many sectors with several components of management. The annual report of Bibliotheca Alexandrina indicates that the library permanently seeks to create a positive work environment (Bibliotheca Alexandrina, 2017). The mission of the Bibliotheca Alexandrina's director states that:

> Bibliotheca Alexandrina is a platform for multicultural expression, freedom of opinion and expression, dialogue, vision formulation and idea elaboration through the activities and events that it organizes or hosts where everyone expresses their ideas, especially young people who can show their creative capabilities. (Al-Feqi, 2017)

The mission calls for freedom of opinion, creative abilities empowerment and vision building which a management approach, based on management openness, can achieve, which is one of the factors to create a positive work environment.

On the other side, it turns out through personal interviews conducted by the researcher with the library staff members working in different library sectors that there are many administrative problems facing employees, including the following:

- not using the real competencies of the staff members in the library;
- absence of team spirit;
- lack of transparency in circulating information;
- scarcity of meetings to discuss problems at unit, department and sector levels;
- not properly using the budget and no involvement staff in decision making.

This called for the need to know the requirements of applying OBM in the library, since it has the potential to solve many administrative problems as well as improving staff performance and dropping barriers between executives and administration.

This study attempts to shed light on the degree of practicing OBM at Bibliotheca Alexandrina and to recognize the main requirements needed to achieve this new methodology in libraries with the aim of reducing wrong management practices that harm library employees and the library in general. In this sense, this study seeks to answer the following main question: what is the availability degree of OBM requirements at Bibliotheca Alexandrina? A number of other questions stem from the main question:

1. What is the degree of practicing numbers disclosure at Bibliotheca Alexandrina?
2. What is the degree of information and communications flow at Bibliotheca Alexandrina?
3. What is the degree of practicing empowerment at Bibliotheca Alexandrina?
4. What is the degree of innovation encouragement at Bibliotheca Alexandrina?
5. What is the degree of practicing management openness at Bibliotheca Alexandrina?
6. What are the constraints that limit the application of OBM at Bibliotheca Alexandrina?

Study objectives

1. Identifying OBM requirements at libraries;
2. Identifying the current practice level of OBM at Bibliotheca Alexandrina;

3. Identifying the constraints that limit application of OBM at Bibliotheca Alexandrina;
4. Reaching the most important ways that contribute to strengthening the application of OBM at Bibliotheca Alexandrina.

Study importance

The study derives its importance from the newness of its subject matter, i.e. the application of OBM in libraries, which is a prerequisite to exercising democracy at information organizations and then moving from closed management to open management style. This also increases decentralization among administrative levels, which leads to improved efficiency and effectiveness of administrative work to achieve objectives of different forms and types of information organizations. The researcher hopes that this study contributes to determine mechanisms of applying and exercising OBM in libraries in general. The researcher also hopes that the results of the study will help in improving administrative performance at Bibliotheca Alexandrina in terms of promoting strengths and addressing shortcomings.

Study methodology

The researcher used the case study methodology since it is more suitable to the nature of the study as it allows the comprehensive and detailed study of OBM in Bibliotheca Alexandrina. This methodology also offers abundant information that helps in understanding the situation in more depth than in other research methodologies. The methodology used in this research paper is also used in the studies by Lima (2017), Haji (2012) and Saud (2015).

In order to achieve the objectives of the study and answer its questions, the researcher designed a survey to collect data after referring to literature related to the subject matter of the study. To check the validity of the questionnaire, it was presented to three academic arbitrators with competence in library management. Their modifications (additions or rephrasing of some paragraphs) in the questionnaire have been implemented. To confirm reliability of the questionnaire, it was distributed twice to a pilot sample composed of 20 employees. This led to consistency of results; then the tool became ready for distribution to the sample respondents of this study.

The questionnaire, which is appended to this article, consists of seven dimensions as follows:

1. characteristics of the study sample;
2. measures the degree of numbers disclosure at Bibliotheca Alexandrina;

Table 2. Weighted average values in the three-point Likert scale.

Approval score	Weighted average
Large score	From 2.34 to 3
Average score	From 1.67 to 2.33
Weak score	From 1 to 1.66

3. measures the flow of information and communication at Bibliotheca Alexandrina;
4. assesses the degree of empowerment at Bibliotheca Alexandrina;
5. assesses the degree of innovation encouragement at Bibliotheca Alexandrina;
6. measures the degree of management openness at Bibliotheca Alexandrina;
7. measures the constraints that limit the application of OBM at Bibliotheca Alexandrina.

Dimensions of the survey depend on a three-point Likert scale, which consists of three degrees that represent the response rate of the study sample. Table 2 shows the weighted average values.

Study community

The study community is Bibliotheca Alexandrina staff (2393 employees according to 2017 estimates). The survey was distributed to employees working in all sectors of the library, both in paper and electronic forms. After a long time of distributing the survey and after several attempts to request the answers, the number of participants who responded to the survey was 228 employees.

Characteristics of the sample

Table 3 shows that male employees represent the larger percentage of the sample with 58.8%, while females represent 41.2% and this is expected because the number of male employees is more than the number of female employees in Bibliotheca Alexandrina.

Table 4 shows the diversity of age groups among the respondents and this reflects the nature of the employee ages in Bibliotheca Alexandrina.

Table 3. Analytical results of gender.

Percentage	Frequency	Gender
Male	134	58.8
Female	94	41.2
Total	228	100

Table 4. Analytical results of age.

Age	Frequency	Percentage
Less than 30	15	6.5
35-30	46	20.2
40-36	49	21.5
45-41	69	30.3
50-46	23	10.1
More than 50	26	11.4
Total	228	100

Table 5. Analytical results of educational level.

Degree	Percentage	Frequency
University degree	81.6	186
Diploma	12.7	29
Master	3.5	8
Ph.D.	2.2	5
Total	100	228

Table 6. Analytical results of Bibliotheca Alexandrina work sectors.

Sectors	Frequency	Percentage
Libraries sector	149	65.4
Cultural communication sector	35	15.3
Academic research sector	19	8.3
Financial and administrative sector	12	5.3
Central projects and services sector	8	3.5
ICT sector	5	2.2
Total	228	100

Table 5 shows the qualifications of employees in Bibliotheca Alexandrina which are Bachelor, Diploma, Master and PhD.

Table 6 shows the diversity of sectors responding to the survey which ensures the diversity of opinions relevant to the subject matter of the study. The table also shows that the highest participating sector is the libraries sector with 65.4%, since it is one of the largest sectors in Bibliotheca Alexandrina.

Field study and results

First dimension: Degree of practicing numbers disclosure in Bibliotheca Alexandrina

Table 7 shows that the degree of exercising numbers disclosure in Bibliotheca Alexandrina is average since the general average of sections is 1.91, which is in the average range on the three-point Likert scale. The

highest average in this range comes in the following sections:

- Management reveals to the employee his annual performance assessment rating;
- Management is keen to inform staff of their work results;
- Management determines figures and performance indicators required to progress the library towards its long-term goals.

The researcher sees that these combined elements contribute to staff follow-up of their performance in the library. This improves performance in accomplishing tasks assigned to them and raises the quality of service levels provided by the library.

The lowest average is reached in the following sections:

- Management discloses the library budget and expenditure numbers to employees;
- Management discloses the numbers of voluntary contributions made by institutions or countries to the library.

The library regularly issues an annual report that contains the annual budget; however, the administration is obviously not interested in distributing the budget expenditure items to the staff. This is consistent with the respondents' answers to section 2: "Management applies the hide numbers or information policy from the library staff", as this section got the highest average among sections. On the other side, the respondents' answers to section 8: "There is high confidence in the figures published in the library's annual report" are in the average response range, which indicates that the library budget is still a closed book for employees.

Second dimension: Degree of information and communication flow in Bibliotheca Alexandrina

Table 8 shows that the degree of information and communication flow in Bibliotheca Alexandrina lies in general in the range of average response according to the three-point Likert scale. The average of section 2: "Information issued by the administration is accurate and clear" expresses the commitment of the leadership in Bibliotheca Alexandrina to accuracy and clarity of information issued from the library.

The average of section 5: "Electronic communication in the library allows administrative liaison at all levels" lies in the high range of response, which signals active electronic communication among the management team in the library. Section 6: "Management uses

Table 7. The practice of numbers disclosure in Bibliotheca Alexandrina.

		High score		Medium score		Low score		
No.	Sections	F	%	F	%	F	%	Average
1	Management reveals to the employee his annual performance assessment rating	162	71.1	52	22.8	14	6.1	2.65
2	Management applies the hide numbers or information policy with the library staff	81	35.5	82	36.0	65	28.5	2.07
3	Management discloses the library budget and expenditure numbers to employees	4	1.8	41	18.0	183	80.3	1.21
4	Management discloses the numbers of voluntary contributions made by institutions or countries to the library	21	9.2	43	18.9	164	71.9	1.37
5	Management determines figures and performance indicators required to progress the library towards its long-term goals	62	27.2	124	54.4	42	18.4	2.09
6	Management is keen to inform staff of their work results	85	37.3	83	36.4	60	26.3	2.11
7	Library publishes diverse statistics without summarizing or screening	42	18.4	103	45.2	83	36.4	1.82
8	There is high confidence in the figures published in the library's annual report	43	18.9	124	54.4	61	26.8	1.92
General average								1.91

Table 8. The flow of information and communication in Bibliotheca Alexandrina.

		High score		Medium score		Low score		
No.	Sections	F	%	F	%	F	%	Average
1	The employee receives information at the needed time without delay	42	18.4	62	27.2	124	54.4	1.64
2	Information issued by the administration is accurate and clear	64	28.1	124	54.4	40	17.5	2.11
3	The employee gets information without constraints	8	3.5	45	19.7	175	76.8	1.27
4	There is confidentiality in information exchange	103	45.2	83	36.4	42	18.4	2.27
5	Electronic communication in the library allows administrative liaison at all levels	104	45.6	102	44.7	22	9.6	2.36
6	Management uses diverse means of communication to match the nature of communication objectives	23	10.1	143	62.7	62	27.2	1.83
7	The library provides information to the outside community immediately upon request	63	27.6	104	45.6	61	26.8	2.01
8	Frequently receiving rumors related to the library	145	63.6	43	18.9	40	17.5	2.46
General average								1.99

diverse means of communication to match the nature of communication objectives" comes in the average response range, which refers to the lack of diversity in the means of communication in the library.

Table 8 shows that although the library provides information to the outside community immediately upon request, there are constraints on the flow of information among the library staff. Section 1: "The employee receives information at the needed time without delay", and section 3: "The employee gets information without constraints" are in the weak response range. Among the respondents 45.2% indicate that there is a large degree of confidentiality in the exchange of information, and 63.6% report that they significantly receive rumors related to the library. The researcher believes that lack of information leads to the spread of rumors and misinformation while the free flow of information without secrets or constraints limits any rumors or false information about the library. The researcher's opinion is the same as that of the study by Lima (2017), where they both refer to communication as a means to achieve bonding and cohesion among the staff and to enable them to counter rumors that may defame the organization.

Table 9. Exercising empowerment in Bibliotheca Alexandrina.

No.	Sections	High score		Medium score		Low score		Average
		F	%	F	%	F	%	
1	All library staff participate in decision making and policy making	3	1.3	5	2.2	220	96.5	1.05
2	Management enhances confidence with workers	9	3.9	74	32.5	145	63.6	1.40
3	Employees are given more authority and power of action	4	1.8	58	25.4	166	72.8	1.29
4	Employees are given freedom and independence in performing work without any direct interference from administration	21	9.2	63	27.6	144	63.2	1.46
5	Strong centralization in decision-making authority	145	63.6	77	33.8	6	2.6	2.61
6	Library ensures integration and connectedness between the different administrative levels	5	2.2	121	53.1	102	44.7	1.57
	General average							1.56

Third dimension: Degree of exercising empowerment in Bibliotheca Alexandrina

Table 9 shows that the degree of exercising empowerment in Bibliotheca Alexandrina lies in the weak response range. The lowest average comes in the following sections:

- "All library staff participate in decision making and policy making" is rated weak by 96.5%.
- "Employees are given more authority and power of action" is rated weak by 72.8%.
- "Management enhances confidence with workers" is rated weak by 63.6%.
- "Employees are given freedom and independence in performing work without any direct interference from administration" is rated weak by 63.2%.

The highest average of all sections comes in section 5: "Strong centralization in decision making authority", where 63.6% of respondents significantly reported this.

The analysis of Table 9 shows the absence of empowerment which is a very important element in OBM. Empowerment means giving authority and freedom of action to staff so that they behave as if they were the owners of the library and care about the library's success and progression. They also show self-enthusiasm to improve levels of performance within the library without strict supervision or mistrust from anyone in the administration.

This result is consistent with library staff answers to interview questions. They mention that they are not participating in decision making in the library; the library is not utilizing their personal competencies; and there is generally a scarcity of delegation and empowerment. These factors eliminated their job satisfaction.

Fourth dimension: Degree of innovation encouragement at the library of Bibliotheca Alexandrina

Table 10 shows that the degree of encouraging innovation in Bibliotheca Alexandrina is in the weak response range since all respondent answers in every section of this dimension come into the weak response range as follows:

- "Employee motivation and remuneration systems are strengthened" is rated weak by 88.2%.
- "Management encourages staff to think outside the box" is rated weak by 63.2%.
- "The applied management methodology encourages staff to innovate" is rated low by 54.8%.
- "The library optimally benefits from staff potential and capacity" is rated weak by 54.4%.

Analysis of Table 10 shows the absence of OBM's essential element of encouraging innovation. The competitive climate prevailing among information institutions requires that libraries do their utmost to get a benefit that exceeds the value provided by competitors through encouraging innovation to get a competitive advantage to go through into this competition.

Fifth dimension: Degree of practicing administrative disclosure in Bibliotheca Alexandrina

Table 11 shows that the degree of practicing administrative disclosure in Bibliotheca Alexandrina in general is in the average response range. The lowest

Table 10. Encouraging innovation in Bibliotheca Alexandrina.

		High score		Medium score		Low score		
No.	Paragraphs	F	%	F	%	F	%	Average
1	The applied management methodology encourages staff to innovate	21	9.2	82	36.0	125	54.8	1.54
2	Management encourages staff to think outside the box	22	9.6	62	27.2	144	63.2	1.46
3	The library optimally benefits from staff potential and capacity	24	10.5	80	35.1	124	54.4	1.56
4	Library supports creative abilities of employees	19	8.3	88	38.6	121	53.1	1.55
5	The library manager holds meetings and gatherings with staff to obtain proposals for development	22	9.6	89	39.0	117	51.3	1.58
6	Abilities, skills and efforts of staff are recognized and appreciated	43	18.9	63	27.6	122	53.5	1.65
7	Employee motivation and remuneration systems are strengthened	21	9.2	6	2.6	201	88.2	1.21
General average								1.51

Table 11. The practice of administrative disclosure in Bibliotheca Alexandrina.

		High score		Medium score		Low score		
No.	Paragraphs	F	%	F	%	F	%	Average
1	The management adopts clarity and transparency in exercising business	12	5.3	54	23.7	162	71.1	1.34
2	The management explains reasons for administrative decisions when making them.	23	10.1	81	35.5	124	54.4	1.56
3	The management discloses library's future plans to employees	24	10.5	83	36.4	121	53.1	1.57
4	The management adopts democracy when dealing with different issues and problems	42	18.4	62	27.2	124	54.4	1.64
5	The management discloses library failures and problems in meetings or gatherings	43	18.9	102	44.7	83	36.4	1.82
6	Library laws and regulations are visible to all the staff	106	46.5	82	36.0	40	17.5	2.29
7	Management allows employees to evaluate its performance	21	9.2	42	18.4	165	72.4	1.37
8	There are specific declared criteria in the recruitment and promotion policy	63	27.6	64	28.1	101	44.3	1.83
General average								1.68

average in all sections comes in the weak response range in the following sections:

- "The management adopts clarity and transparency in exercising business" is rated weak by 71.1%.
- "The management allows employees to evaluate its performance" is rated weak by 72.4%.
- "The management adopts democracy when dealing with different issues and problems" is rated weak by 54.4%.

The former results are largely consistent with each other because there is a significant relationship between adopting democracy, performance evaluation and transparency. Evaluating management performance is one of the pillars of democracy and practicing democracy creates a climate of transparency. Clarity and transparency in all administrative works are essential since ambiguity in all transactions leads to blurred vision and makes things subject to guessing.

The highest average among all sections comes in the average response range within the following sections:

- Library laws and regulations are visible to all the staff;
- The library management discloses failures and problems in meetings or gatherings;
- There are specific declared criteria in the recruitment and promotion policy.

Table 11 shows that Bibliotheca Alexandrina seeks to declare work policies and regulations to workers

Table 12. Constraints limiting the application of OBM in Bibliotheca Alexandrina.

Constraints	Frequency	Percentage
Dominance of bureaucracy in different departments of the library	122	53.5
The use of traditional methods in management and planning	176	77.2
Management threatening undertaken by some of the middle leaders	70	30.7
Prevalence of personal interests over public ones	149	65.4
Other constraints, please mention here	4	1.8

Table 13. Availability of open-book management requirements at Bibliotheca Alexandrina.

Requirements of open-book management	Average	Degree of practice
Numbers disclosure	1.91	Average
Flow of information and communication	1.99	Average
Empowerment	1.56	Weak
Innovation	1.51	Weak
Administrative disclosure	1.68	Average
General average	1.73	Average

and discloses failures and problems of the library in meetings, and this is necessary in the OBM approach.

Sixth dimension: Constraints limiting application of OBM in Bibliotheca Alexandrina

Table 12 shows that the most important constraint facing the activation of OBM in Bibliotheca Alexandrina is the use of traditional methods in management and planning (77.2%). Undoubtedly, these methods rely on centralization, strict censorship and leadership's unwillingness to give up information due to fear of losing this preciously owned weapon.

The "Prevalence of personal interests over public ones" constraint comes second, since 65.4% of the sample respondents report this. The researcher thinks that one of the reasons for this is the restrictions imposed on the flow of information in the library.

The constraint "Dominance of bureaucracy in different departments of the library" comes third (53.5%). This corresponds largely to the results of Table 11, since 54.4% of sample respondents report poor democratic approach from management when dealing with different issues and problems.

The constraint "Management threatening undertaken by some of the middle leaders" comes fourth (30.7%). Management threatening is one of the "management by fear" elements, which is a management strategy that aims to control employees using threats, whether directly or indirectly, and it depends on rousing hidden concerns inside individuals.

At the last level come other factors mentioned by four respondents (1.8%) of the study sample. These revolve around weakness of public awareness of the OBM fundamentals.

Availability of OBM requirements in Bibliotheca Alexandrina

Table 13 shows that the degree of availability of OBM requirements at Bibliotheca Alexandrina lies at the beginning of the average step on the three-point Likert scale. The general average of OBM requirements at Bibliotheca Alexandrina is 1.73% and the weighted scale of the Likert scale lies between 1.67% and 2.33%. This indicates that Bibliotheca Alexandrina is still in the beginning stage of applying the OBM approach and providing its requirements.

Conclusion

The study shows that the degree of practicing OBM at Bibliotheca Alexandrina lies at the beginning of the average step on the Likert scale, since there are constraints on the flow of information within the library and among its staff and there is a high level of centralization practiced by the decision-making authority. It is also clear that a very important element of OBM is absent, which is exercising empowerment that means, "Giving employees more authority and power of disposition" and this receives a weak rating from 72.8% of respondents. Practicing democracy by the library administration in dealing with issues and different problems also got a weak rating from 54.4% of respondents. It is clear from the study results that the applied management style does not help to encourage employees to innovate, as reported by 54.8%.

On the other hand, some strengths in the application of OBM approach at Bibliotheca Alexandrina are visible; for example, information issued by management is precise and clear, and the library provides information to the outside community immediately when requested. The library also discloses the annual performance assessment degree to every employee. The laws and regulations in place are also visible to all staff members and the library aims to inform staff

of work results. The electronic communication in the library enables administrative communication on all levels, and the management discloses failures and problems that confront the library at meetings or gatherings. The library determines performance numbers and indicators required to assess the library's progress towards its long-term goals.

The study reveals the most important obstacle to applying OBM approach at Bibliotheca Alexandrina, namely the use of traditional methods in management and planning noted by 77.2%, prevalence of personal interests over public ones by 65.4% and the dominance of bureaucracy in different departments of the library by 53.5%.

In light of the study findings, the researcher believes that it is necessary to reconsider the management style currently applied in Bibliotheca Alexandrina, starting with the development, improvement and updating of all library administrative systems and adopting a management style based on disclosure, transparency and clarity, which are inherent in the OBM approach. Therefore, the study recommends the following:

1. Providing degrees of empowerment and freedom of action at work for employees in Bibliotheca Alexandrina. Empowerment should not be on a hierarchal basis but rather based on efficiency and enhanced performance.
2. Showing transparency and openness in the flow of information between members of administrative management and getting rid of the culture of hoarding information.
3. Setting a scenario to activate the budget in a correct way, where all employees in Bibliotheca Alexandrina contribute to so that they have a true sense of ownership. This will boost employee levels of belonging and loyalty. How much money was disbursed due to poor management of the central authority!
4. All the library numbers should be visible to library workers. This helps in proposing ideas that will move these numbers up in favor of Bibliotheca Alexandrina.
5. Workers should participate in the library's decision making and they should be looked on as stakeholders in the decision-making process and in library development.
6. Skilled staff members should be considered as the library's capital not a burden.
7. Encouraging the spirit of initiative and innovation.
8. Adoption of a reward system, linking it to performance, excellence, creativity and innovation.
9. Pursuing democracy at work to nurture freedom and release creative energies.
10. Open communication and permanent diversification of communication channels, so that barriers disappear between the head and the subordinates. There is also a need to hold brainstorming sessions and meetings to stimulate creative thinking and share experiences.
11. Establishing the principle of credibility by strengthening mutual trust between managers and workers at Bibliotheca Alexandrina.

To conclude, the study recommends the importance of applying the open-book methodology at different types of libraries through following phases and fulfilling requirements shown in this study. The study also recommends conducting further research on applying OBM methodology in libraries.

Declaration of conflicting interests

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Author biography

Nehal Fouad Ismael is an Associate Professor in the Libraries and Information Department, Faculty of Arts, Alexandria University, Egypt. She obtained her PhD degree from Menoufia University, 2006 with first class honors, and with the recommendation of publishing her thesis "The use of video conferencing network in the training of librarian: An evaluative study". She has taught in several regional and local universities and published 13 research articles in scientific journals and conferences as well as 10 books in the field of technology and management, the most recent being *Principles of Information Systems and Technologies* (Riyadh: AL-Ameed, 2018). In addition to attending up to 20 conferences and symposiums in the field of libraries and information, she has been a trainer on courses in the field of information technologies and a consultant in the information technology sector. She has supervised Masters and PHD theses in several universities in Egypt and has participated in developing study plans and curricula for Departments of Library & Information Science in Saudi Arabia and Egypt.

Appendix: Survey

First dimension: Characteristics of the sample

1.1 Gender.

☐ Male
☐ Female

2.1 Age.

☐ Less than 30
☐ 35–30
☐ 40–36
☐ 45–41
☐ 50–46
☐ More than 50

1.3 Scientific degree.

☐ University degree
☐ Diploma
☐ Master's
☐ PhD

4.1 Work sector at the library.

☐ Libraries sector
☐ Cultural communication sector
☐ Academic research sector
☐ Financial and administrative sector
☐ Central projects and services sector
☐ ICT sector

Choose the rating that expresses your opinion

Sections	High score	Average score	Low score
Second Dimension: Numbers disclosure			
1. Management reveals to the employee his annual performance assessment rating			
2. Management applies the hide numbers or information policy from the library staff			
3. Management discloses the library budget and expenditure numbers to employees			
4. Management discloses the numbers of voluntary contributions made by institutions or countries to the library			
5. Management determines figures and performance indicators required to progress the library towards its long-term goals			
6. Management is keen to inform staff of their work results			
7. Library publishes diverse statistics without summarizing or screening			
8. There is high confidence in the figures published in the library's annual report			
Third dimension: Flow of information and communication			
9. The employee receives information at the needed time without delay			
10. Information issued by the administration is accurate and clear			

(continued)

Appendix (continued)

Sections	High score	Average score	Low score
11. The employee gets information without constraints			
12. There is confidentiality in information exchange			
13. Electronic communication in the library allows administrative liaison at all levels			
14. Management uses diverse means of communication to match the nature of communication objectives			
15. The library provides information to the outside community immediately upon request			
16. Frequently receiving rumors related to the library			
Fourth dimension: Empowerment			
17. All library staff participate in decision making and policy making			
18. Management enhances confidence with workers			
19. Employees are given more authority and power of action			
20. Employees are given freedom and independence in performing work without any direct interference from administration			
21. Strong centralization in decision-making authority			
22. Library ensures integration and connectedness between the different administrative levels			
Fifth dimension: Innovation			
23. The applied management methodology encourages staff to innovate			
24. Management encourages staff to think outside the box			
25. The library optimally benefits from staff potential and capacity			
26. Library supports creative abilities of employees			
27. The library manager holds meetings and gatherings with staff to obtain proposals for development			
28. Abilities, skills and efforts of staff are recognized and appreciated			
29. Employee motivation and remuneration systems are strengthened			
Sixth dimension: Administrative disclosure			
30. The management adopts clarity and transparency in exercising business			
31. The management explains reasons for administrative decisions when making them.			
32. The management discloses library's future plans to employees			
33. The management adopts democracy when dealing with different issues and problems			
34. The management discloses library failures and problems in meetings or gatherings			
35. Library laws and regulations are visible to all the staff			
36. Management allows employees to evaluate its performance			
37. There are specific declared criteria in the recruitment and promotion policy			

Seventh dimension: what are the constraints limiting the application of OBM in the Library of Alexandrina from your point of view?

☐ Dominance of bureaucracy in different departments of the library

☐ The use of traditional methods in management and planning

☐ Management threatening undertaken by some of the middle leaders

☐ Prevalence of personal interests over public ones

☐ Other constraints, please mention here

Abstracts

قتطفات

Learning strategies for engagement and retention of young audiences

آستراتيجيات التعلّم وآشراك جمهور النشء

Luz Santa Maria Muxica

العدد رقم 44،4 من مجلة الآفلا المتخصصة:

الملخص: يدرس هذا المقال الآبحاث المتاحة حول تشجيع الجمهور الصغير على زيارة المكتبات والمتاحف والعروض الفنية والمشاركة في آستراتيجيات المكتبة لكسب جمهور دائم، وتقع توصيات آمريكآ اللاتينية للطفل والنشء آلآن في طور التخطيط، ويوضح المقال آفكاراً للبرامج والشراكات والتواصل ودعم المكتبات في ظل القرن الحادي والعشرين بما يتسق مع توآجد الآطفال والنشء في المكتبة والحاجة آلى تمكين الجمهور من حقوقه الثقافية.

Promoting reading in the Arab world: The book club model

الترويج للقراءة في الوطن العربي: نادي الكتاب نموذجاً:

Youmen Chaaban, Rania Sawalhi

العدد رقم 44،4 من مجلة الآفلا المتخصصة:

الملخص: لم تحظ نوادي الكتاب بآهتمام كبير رغم تزآيد عددها حول العالم، تهدف هذه الدراسة آلى بحث وضع ‟نادي الكتاب" في الوطن العربي، ألقى 18 شخص من 6 دول عربية توضيحاً عميقاً لحآل ‟نوادي الكتاب" العربية، وتشير نتائج البحث آن ‟نوادي الكتاب" العربية تعمل بطرق متميزة عديدة: بدءاً من الآجتماعآت الرسمية وصولاً آلى التجمعات العادية، كما تشير النتائج آلى التشجيع على آنشاء نوآدي للكتاب في الوطن العربي حيث يستطيع الجمهور تنمية مهآراته، وتكوين علاقآت، ولكن هذه النوآدي وآجهت العديد من التحديات وفقاً لكآ آقره المشاركون في البحث، وتقدم الدراسة العديد من المقترحآت للحفاظ على آستدآمة ‟نوادي الكتاب" العربية، وهو مآ يؤثر بشآنه على المكتبيين والمعلمين وعموم الجمهور.

Research data management and sharing among researchers in Arab universities

آدارة البيانآت البحثية ومشاركتها بين بآحثي الجامعآت العربية:

Amany M. Elsayed, Emad Isa Saleh

العدد رقم 44،4 من مجلة الآفلا المتخصصة:

الملخص: تستكشف هذه الدراسة ممارسآت الباحثين الحآلية في آدارة البيانآت ومشاركتهآ، وتم عمل آستبيآن آلكتروني بين الباحثين في ثلاث جامعآت عربية قي مصر والآردن والمملكة العربية السعودية، وقام 337 مشارك بملء الآستبيان، وتشير الدراسة آلى آن 97% من الباحثين مسؤولون عن بيانآتهم البحثية و64.4 من الباحثين يشاركون هذه البيانآت، آن الآسهام في التقدم العلمي وزيادة الآستشهاد البحثي كآنت العوآمل الآساسية التي شجعت الباحثين على مشاركة المعلومآت والبيانآت، وفي النهاية تقدم الدراسة بعض التوصيات لتطوير آدارة البيانآت وممارسآت مشاركتهآ.

The hidden heritage of Arab libraries: Online catalogs and institutional barriers to discoverability

ترآث المكتبآت العربية المخبأ: الفهآرس الآلكترونية والعوآئق المؤسسية آمآم الآتآحة:

Charles Kurzman, John Daniel Martin III

العدد رقم 44،4 من مجلة الآفلا المتخصصة:

الملخص: لقد جعلت التطورآت التكنولوجية آتآحة المعلومآت والتفآعل مع الجمهور سمة للمكتبآت المعاصرة، ولكن قدر الآتآحة ليس متسآوياً على مستوى العالم، فالمكتبآت العربية لديهآ مخزون هآئل من الترآث ليس مفهرساً ومتآحاً على الآنترنت، يلخص هذا المقال نتائج بحث آجري على مدآر عآم في المكتبآت العربية وآشتمل على: آ) آستطلاع حول توآجد المكتبآت العربية على الآنترنت، ب) آستطلاع حول المكتبيين العرب، ج) لجنة للنقاش مع المكتبيين والدآرسين العرب، وتوصلت الدراسة آن هناك توآجد ضئيل لهذه المكتبآت على الآنترنت وتلعب العوآمل المؤسسية دورآ هآماً في عدم وضع هذه المعلومآت على الآنترنت.

Momentous moment: Rediscovering Korean history through digitizing private letters

لحظة بالغة الآهمية: آعادة آكتشآف التاريخ الكوري من خلال رقمنة الرسائل الشخصية:

Hye-Eun Lee, Hana Kim, Jisu Lee

العدد رقم 44،4 من مجلة آلآفلا آلمتخصصة:

الملخص: يهدف البحث الى آلقاء نظرة على تطور آلارشيف آلرقمي لمجموعة مراسلآت عآئلة "مين" في مكتبآت جامعة تورونتو وهي أول مجموعة مخطوطآت كورية في كنداً، وقد حقق هذا آلمشروع آلرقمي آلآستراتيجي آلتآلي: تحليل وتفنيد محتوى آلمخطوطآت، عمل وآصفآت بيآنآت، آتآحة هذه آلمصادر بصورة آفضل، وتوضح نتآئج هذه آلدرآسة آن بنآء جسور آلتوآصل بين آلمؤسسآت آلشريكة هو من آهم عوآمل نجآح مشروعآت آلرقمنة، وكآن آلهدف آلآسآسي من هذه آلدرآسة هو فهم كيفية تآسيس وتطوير آرشيف رقمي للمخطوطآت آلتآريخية آلآسيوية وآكتشآف سبل تطوير مثل هذه آلوثآئق آلتآريخية آلنآدرة.

Open-book management in libraries: A case study of bibliotheca alexandrina

الآدآرة على آلمكشوف في آلمكتبآت: درآسة حآلة من مكتبة آلآسكندرية:

Nehal Fouad Ismael

العدد رقم 44،4 من مجلة آلآفلا آلمتخصصة:

الملخص: تهدف هذه آلدرآسة الى تحديد متطلبآت تطبيق آلآدآرة على آلمكشوف (OBM) وشرح مرآحل وخطوآت تطبيق هذه آلمنهجية آلجديدة في مختلف آنوآع آلمكتبآت، وآختآرت آلبآحثة مكتبة آلآسكندرية كونهآ منآرة ثقآفية عظيمة لقيآس مدى تطبيق هذه آلمنهجية من وجهة نظر آلعآملين في آلمكتبة؛ لمعرفة مآ يعيق تطبيق آلآدآرة على آلمكشوف بصورة كآملة.

摘要

Learning strategies for engagement and retention of young audiences

关于提升年轻读者参与度和留住年轻读者的策略

Luz Santa Maria Muxica

卢斯·圣玛利亚·莫西卡

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国国际图联杂志》，44-4，258-268

摘要：这片文章对有关鼓励年轻人积极参观图书馆、博物馆和观看艺术表演，以及图书馆在发展永久读者的策略方面的相关文献进行了综述。从文献回顾中获得的一些建议，为目前正在筹建的拉丁美洲儿童和青少年图书馆提供了指导。文中阐述了有关二十一世纪图书馆项目、伙伴关系、交流和推广等内容，都是和读者策略相一致的，强调儿童和青少年的"参与性"，强调文化参与者的需求和动机，以及行使文化权利的需要。

Promoting reading in the Arab world: The book club model

阿拉伯世界的阅读推广：读书俱乐部模式

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优曼·沙班，拉尼亚·萨瓦里

国国际图联杂志》，44-4，269-280

摘要：尽管读书俱乐部在世界各地普遍存在，但是却没有获得多少学术研究者的关注。此项研究试图探究读书俱乐部的现状，尤其是在阿拉伯世界。来自六个阿拉伯国家的十八位读书馆俱乐部的组织者，详细介绍了各阿拉伯国家读书馆俱乐部的现状。结果显示，阿拉伯国家的读书俱乐部有几种独特的运作模式，从正式、高度结构化的会议，到非正式、氛围友好的聚会。研究结果同样也揭示了阿拉伯国家设立读书俱乐部的动机，就这一点来说，参与读书俱乐部的人通常对个人成长、人际关系以及社会责任等有很高的期望值。但是，这项研究的参与者也指出了阿拉伯国家的读书俱乐部所面临的一些挑战。研究也对阿拉伯读书俱乐部未来的可持续发展提出了建议，同时也强调了该研究对图书馆员、教育者和公众的启示，以此为读书俱乐部的持续发展提供动力。

Research data management and sharing among researchers in Arab universities

阿拉伯大学科研人员研究数据的管理与分享

Amany M. Elsayed, Emad Isa Saleh

艾玛尼·M·赛义德，伊玛德·伊萨·萨利赫

国国际图联杂志》，44-4，281-299

摘要：此项研究会关注科研人员目前在研究数据的管理和分享方面的一些实践。该研究对来自埃

及、约旦和沙特阿拉伯的三所大学的科研人员进行了网上调查，共有337位参与者填写了在线调查问卷。调查结果显示，97%的参与者会对他们的研究数据负责，有64.4%的参与者会分享他们的数据。为科学进步做贡献和提升科研成果的引用率和曝光度，是科研人员选择分享数据的主要原因。但是，保密性不够以及数据的误用仍然是不愿分享数据的科研人员的主要担忧。研究的最后对提高数据管理水平和推动数据分享实践提供了一些建议。

The hidden heritage of Arab libraries: Online catalogs and institutional barriers to discoverability

阿拉伯图书馆隐藏的遗产：联机目录与资源可见性的制度性障碍

Charles Kurzman, John Daniel Martin III

查尔斯·库兹曼，约翰·丹尼尔·马丁三世

国国际图联杂志》，44-4，300-310

摘要：技术的进步，似乎让在线便捷获取图书馆馆藏资源信息，成为现代图书馆的一个普遍特征。然而，这种便捷的信息获取在世界范围内并不是普遍存在的。阿拉伯图书馆有很大一部分"隐藏的遗产"，无法通过联机公共目录获取。本文所介绍和总结的研究，是一项为期一年的有关阿拉伯图书馆国际合作研究的一部分。该研究包含(a)一项关于阿拉伯图书馆网络呈现状态的调查，(b)一项阿拉伯图书馆员的调查，和(c)阿拉伯图书馆员和图书馆学者的集中小组讨论。研究发现，规模相对较小的网络呈现并不仅是因为一些物质因素导致的：一些制度性因素也对图书馆资源信息无法线上获取有很大的影响。

Momentous moment: Rediscovering Korean history through digitizing private letters

重要时刻：通过私人信件的数字化重新发现韩国历史

Hye-Eun Lee, Hana Kim, Jisu Lee

李海恩(音译)，金荷娜(音译)，李智秀(音译)

国国际图联杂志》，44-4，311-322

摘要：本篇文章介绍了多伦多大学图书馆对馆藏的闵氏家族书信手稿进行数字化档案建设的情况，该馆藏也是加拿大的首份韩国历史手稿。多伦多大学图书馆和韩国国家图书馆共同进行的这项战略性的数字化项目取得了以下的成果：内容分析和手稿注释，元数据生成，以及加强了资源获取。研究的结果显示，这项数字化工程能够取得成功的一个重要因素，是两个组织之间建立了良好的伙伴关系。我们在这个项目中的主要目标是进一步深入了解如何发展亚洲历史手稿的数字档案，以及如何提升珍贵历史文献资源的获取。

Open-book management in libraries: A case study of bibliotheca alexandrina

图书馆开卷图书管理：亚历山大图书馆案例研究

Nehal Fouad Ismael

尼哈尔·福阿德·伊斯梅尔

国国际图联杂志》，44-4，323-339

摘要：此项研究旨在探究实施开卷图书管理(OBM)的必要条件，并且介绍了将这种新的管理方法推广到不同类型图书馆所需要的阶段和步骤。研究者选取亚历山大图书馆，作为一个顶尖的文化机构，来从图书馆员的角度测评OBM，由此识别在图书馆全面推行OBM所存在的局限。

Sommaires

Learning strategies for engagement and retention of young audiences

Stratégies d'apprentissage pour la motivation et la fidélisation du jeune public

Luz Santa Maria Muxica

Journal IFLA, 44–4, 258–268

Résumé:

Cet article examine la documentation disponible sur l'incitation du jeune public à visiter des bibliothèques et des musées ou à aller au spectacle, ainsi que les stratégies des bibliothèques pour fidéliser le public.

Les recommandations issues de cette analyse servent de document de réflexion pour la « Latin American Library for Children and Youth » (Bibliothèque Latino-américaine pour les Enfants et la Jeunesse) qui est en phase de planification. Des idées concernant la programmation, les partenariats, la communication et la promotion des bibliothèques dans le contexte du 21ème siècle sont expliquées dans le cadre d'une approche qui met l'accent sur la « Présence » des enfants et des jeunes, les demandes et la motivation des participants culturels, et la nécessité d'établir des droits culturels.

Promoting reading in the Arab world: The book club model

Promouvoir la Lecture dans le Monde Arabe: le modèle des clubs de lecture

Youmen Chaaban, Rania Sawalhi

Résumé:

Malgré leur prolifération dans de nombreuses régions du monde, les clubs de lecture n'ont pas beaucoup retenu l'attention des chercheurs universitaires. Cette étude cherche à comprendre le statut des clubs de lecture, en particulier dans le Monde Arabe. Dix-huit animateurs de six pays arabes ont fourni une illustration détaillée du statut des clubs de lecture arabes. Les observations faites indiquent que les clubs de lecture arabe ont plusieurs moyens de fonctionnement distinct, allant de réunions formelles fortement structurées à des rencontres informelles et amicales. Les observations montrent également les attentes sont situées au niveau du développement personnel, des relations interpersonnelles et de l'engagement sociétal. Cependant, les participants reconnaissent que les clubs de lectures arabes ont dû faire face à plusieurs défis. Différentes suggestions ont été émises pour assurer la viabilité des clubs de lecture arabes. Les implications de ces observations pour les bibliothécaires, les éducateurs et le grand public sont également soulignées dans le but de créer une dynamique pour leur maintien.

Research data management and sharing among researchers in Arab universities

La gestion et le partage des données de recherche des chercheurs dans les universités arabes

Amany M. Elsayed, Emad Isa Saleh

Résumé

Cette étude examine les pratiques actuelles des chercheurs dans la gestion et le partage de leurs données de recherche. Une enquête en ligne a été effectuée auprès de chercheurs de trois universités arabes en Egypte, Jordanie et Arabie Saoudite. Au total, 337 participants ont complété le questionnaire. L'étude montre que 97% des chercheurs étaient responsables de leurs données de recherche, et que 64,4% des chercheurs partageaient leurs données. La contribution au progrès scientifique, l'augmentation du nombre de citations de recherche et l'amélioration de la visibilité étaient les facteurs clés de la motivation des chercheurs à partager leurs données. Par contre, la confidentialité et l'utilisation abusive des données étaient les principales préoccupations de ceux qui étaient réticents à partager. Enfin, quelques recommandations concernant l'amélioration des pratiques de gestion et de partage des données sont présentées.

The hidden heritage of Arab libraries: Online catalogs and institutional barriers to discoverability

L'héritage caché des bibliothèques arabes: les catalogues en ligne et les barrières institutionnelles à l'accessibilité

Charles Kurzman, John Daniel Martin III

Résumé:

Grâce aux avancées technologiques, l'accès à l'information concernant les ressources des bibliothèques est devenu une caractéristique universelle de l'interaction avec les bibliothèques modernes. Pourtant, ce type d'accès n'est pas équitablement établi à travers le monde. Les bibliothèques arabes abritent un vaste « héritage caché", sans accès public aux catalogues sur le net. Cet article rapporte et résume les observations d'une étude faite au cours d'une enquête d'une année au sujet de la collaboration internationale des bibliothèques arabes. L'étude incluait a) un relevé de la présence des bibliothèques arabes en ligne b) un sondage auprès des bibliothécaires arabes, et c) un groupe de discussion avec des bibliothécaires arabes et des spécialistes dans ce domaine. Cette étude montre que la modestie de la présence en ligne des bibliothèques s'explique pas uniquement par des facteurs matériels; les facteurs institutionnels jouent également un rôle important dans le fait de maintenir les

informations concernant les collections des bibliothèques hors d'internet.

Momentous moment: Rediscovering Korean history through digitizing private letters

Moment mémorable: la redécouverte de l'histoire coréenne à travers la numérisation de lettres privées

Hye-Eun Lee, Hana Kim, Jisu Lee

Résumé:

L'objectif de ce document est de donner un aperçu du développement d'une archive numérique de la Collection de Correspondance de la Famille Min des bibliothèques universitaires de Toronto, la première collection historique manuscrite coréenne du Canada. Ce projet stratégique de numérisation entre les Bibliothèques des Universités de Toronto et la Bibliothèque Nationale de Corée permet l'analyse de contenu et l'annotation de manuscrits, la création de métadonnées, et un meilleur accès aux ressources. Les résultats de cette étude montrent que les facteurs essentiels pour la réussite de projets de numérisation est la construction de ponts entre deux organismes au sein d'un partenariat. L'objectif principal de cette étude était de nous amener à mieux comprendre quels moyens mettre en œuvre pour développer des archives numériques pour des manuscrits historiques asiatiques, et à explorer des possibilités d'amélioration dans l'accessibilité d'archives historiques rares.

Open-book management in libraries: A case study of bibliotheca alexandrina

Management à livre ouvert dans les Bibliothèques: une étude de cas de la Bibliotheca Alexendrina

Nehal Fouad Ismael

Résumé:

L'étude a pour objet de définir les conditions nécessaires à la mise en place d'un système de Management à Livre Ouvert (MLO), et de montrer les étapes de mise en œuvre de cette nouvelle méthode de gestion dans les différents types de bibliothèques. Le chercheur a choisi la Bibliotheca Alexandrina comme grand minaret culturel pour définir le degré de mise en pratique du MLO du point de vue des employés, afin d'identifier les contraintes qui freinent la pleine application du MLO au sein de la bibliothèque.

Zusammenfassungen

Learning strategies for engagement and retention of young audiences

Lernstrategien für die dauerhafte Motivierung junger Menschen

Luz Santa Maria Muxica

Abstrakt:

Dieser Artikel bezieht sich auf die verfügbare Literatur in Hinsicht auf die Motivierung junger Menschen, Bibliotheken, Museen und Darbietungen darstellender Künste zu besuchen sowie auf Strategien von Bibliotheken zur Heranbildung eines festen Publikums. Die Empfehlungen aus dieser Besprechung dienen als Ansatz für die Lateinamerikanische Bibliothek für Kinder und Jugendliche, die sich derzeit in der Planungsphase befindet. Ideen in Bezug auf Programm, Partnerschaften, Kommunikation und Werbung in Hinsicht auf Bibliotheken im Kontext des 21. Jahrhunderts werden gemäß dem Ansatz für ein Publikum erläutert, bei dem die Anwesenheit von Kindern und Jugendlichen, die Bedürfnisse und Motivation kultureller Teilnehmer und das Bedürfnis zur tatsächlichen Inanspruchnahme kultureller Rechte herausgestrichen werden.

Promoting Reading in the Arab world: The book club model

Förderung des Lesens in der arabischen Welt: das modell der Buchklubs

Youmen Chaaban, Rania Sawalhi

Abstrakt:

Trotz ihrer Verbreitung in vielen Teilen der Welt hat die wissenschaftliche Forschung den Lesegruppen bzw. Buchklubs bisher wenig Aufmerksamkeit gewidmet. Diese Studie zielt auf ein besseres Verständnis in Bezug auf den Status solcher Buchklubs vor allem in der arabischen Welt ab. Achtzehn Moderatoren aus sechs arabischen Ländern beschreiben auf umfassende Weise den aktuellen Zustand arabischer Buchklubs. Die Ergebnisse zeigen, dass arabische Buchklubs auf ganz unterschiedliche Weise tätig sind:

Das reicht von formellen, stark strukturierten Treffen bis hin zu einem zwanglosen, lockeren Beisammensein. Durch die Ergebnisse werden ebenfalls die Gründe für die Einrichtung von Buchklubs in der arabischen Welt aufgezeigt. In dieser Hinsicht haben die Teilnehmer hohe Erwartungen im Hinblick auf persönliches Wachstum, zwischenmenschliche Beziehungen und gesellschaftliche Verantwortung. Trotzdem sehen sich arabische Buchklubs mit verschiedenen Herausforderungen konfrontiert, empfanden die Teilnehmer an dieser Studie. Für die dauerhafte Existenz arabischer Buchklubs wurden mehrere Vorschläge vorgelegt. Die Implikationen der Ergebnisse für Bibliothekare, Pädagogen und die breite Öffentlichkeit werden ebenfalls betont, um einen Impuls für deren Fortsetzung zu schaffen.

Research data management and sharing among researchers in Arab universities: An exploratory study

Umgang mit Forschungsdaten und Austausch zwischen Forschenden an arabischen Universitäten

Amany M. Elsayed, Emad Isa Saleh

Abstrakt:

Diese Studie untersucht die derzeitigen Methoden von Forschenden zur Verwaltung von Forschungsdaten und den Austausch mit anderen. Bei Forschenden von drei arabischen Universitäten in Ägypten, Saudi-Arabien und dem Jordan wurde ein Online-Befragung durchgeführt, die von insgesamt 337 Personen bearbeitet wurde. Die Studie zeigt, dass 97% der Forschenden für ihre Forschungsdaten verantwortlich sind und 64,4% von ihnen ihre Daten anderen zur Verfügung stellen. Die wichtigsten Gründe der Forschenden für diesen Austausch waren der Beitrag zum wissenschaftlichen Fortschritt sowie häufigere Zitate aus ihrer Forschung und eine größere Sichtbarkeit. Bei denjenigen, die sich diesbezüglich vorsichtiger verhielten, wurden vor allem die Vertraulichkeit und ein Missbrauch von Daten genannt. Zum Schluss werden einige Empfehlungen für die Verbesserung des Datenmanagements und dessen Austausch genannt.

The hidden heritage of Arab libraries: Online catalogs and institutional barriers to discoverability

Das verborgene Erbe arabischer Bibliotheken: Online-Kataloge und institutionelle Hemmnisse bei der Auffindbarkeit

Charles Kurzman, John Daniel Martin III

Abstrakt:

Technologische Fortschritte haben den Zugriff auf Informationen von Bibliotheksbeständen zu einer scheinbar universellen Möglichkeit zum Austausch mit modernen Bibliotheken werden lassen. Diese Art des Zugriffs besteht jedoch nicht in aller Welt im gleichen Umfang. Es gibt ein riesiges „Verborgenes Erbe", das in arabischen Bibliotheken enthalten ist, jedoch über Online-Kataloge für den öffentlichen Zugriff nicht erschlossen ist. Dieser Artikel beschreibt die Ergebnisse einer Forschung, die im Rahmen einer einjährigen Studie über die internationale Zusammenarbeit von Bibliotheken in arabischen Bibliotheken durchgeführt wurde, und fasst die Ergebnisse zusammen. Diese Forschungsarbeit umfasst (a) eine Erfassung zur Online-Präsenz arabischer Bibliotheken, (b) eine Erfassung arabischer Bibliotheken, und (c) spezifische Podiumsdiskussionen mit arabischen Bibliothekaren und Bibliothekswissenschaftlern. Die Studie kommt zu dem Schluss, dass sich die relativ kleine Online-Präsenz von Bibliotheken nicht nur durch materielle Faktoren erklären lässt, denn institutionelle Faktoren spielen ebenfalls eine entscheidende Rolle, wenn Informationen über Bibliothekssammlungen offline bleiben.

Momentous moment: Rediscovering Korean history through digitizing private letters

Bedeutungsvoller moment: die Wiederentdeckung der koreanischen Geschichte durch die Digitalisierung privater Briefe

Hye-Eun Lee, Hana Kim, Jisu Lee

Abstrakt:

Dieses Papier soll eine Übersicht über die Entwicklung eines digitalen Archivs der Korrespondenzsammlung der Familie Min bieten, bei der es sich um die erste koreanische Manuskriptsammlung in Kanada in den Bibliotheken der Universität Toronto handelt. Dieses strategische Digitalisierungsprojekt von den Bibliotheken der Universität Toronto und der koreanischen Nationalbibliothek hat Folgendes erreicht: eine Inhaltsanalyse und Anmerkungen zu den Manuskripten, die Erstellung von Metadaten sowie einen verbesserten Zugriff auf die Quellen. Die Ergebnisse dieser Studie zeigen, dass einer der wesentlichen Faktoren bei erfolgreichen Digitalisierungsprojekten darauf begründet ist, Brücken

zwischen den beiden Organisationen im Rahmen einer Partnerschaft zu bauen. Bei dieser Studie ging es uns vor allem darum, ein besseres Verständnis zu erhalten, wie ein digitales Archiv für asiatische historische Manuskripte aufgebaut werden sollte und wie sich die Zugänglichkeit seltener historischer Aufzeichnungen verbessern lassen könnte.

Open-book management in libraries: A case study of bibliotheca alexandrina

Open-book management in bibliotheken: eine Fallstudie der bibliothek Alexandria

Nehal Fouad Ismael

IFLA Journal, 44–4, 323–339

Abstrakt:

Die Studie will die Anforderungen für die Umsetzung eines Open-Book Managements (OBM) bestimmen und die einzelnen Phasen und Schritte bei der Einführung dieser neuen Managementmethodologie in unterschiedlichen Arten von Bibliotheken aufzeigen. Die Forschenden wählten die Bibliothek Alexandria als großartiges kulturelles Meisterwerk, um den Umfang bei der Verwendung von OBM aus der Sicht der Bibliotheksangestellten zu bestimmen, sodass sich die Einschränkungen erfassen lassen, die eine vollständige Anwendung von OBM in der Bibliothek beeinträchtigen.

Рефераты статеи

Learning strategies for engagement and retention of young audiences

Стратегии обучения вовлечению и удержанию юной аудитории

Лус Санта Мария Муксика

IFLA Journal, 44–4, 258–268

Аннотация:

В данной статье рассматривается доступная литература, освещающая процесс привлечения юной аудитории к посещению библиотек, музеев, а также посвященная организации художественных выставок и разработке библиотеками стратегий формирования постоянных аудиторий. Рекомендации, сформированные на основании данного обзора, служат входными данными для Латиноамериканской библиотеки для детей и юношества, которая сейчас находится на стадии планирования. Идеи относительно программы, партнерства, коммуникаций и популяризации библиотек в контексте 21-го века поясняются в разрезе подхода к аудитории, при котором особое значение придается "присутствованию" детей и юношества, запросам и мотивирующим факторам представителей культуры, а также необходимости обеспечения права на участие в культурной жизни.

Promoting Reading in the Arab world: The book club model

Популяризация чтения в арабском мире: модель книжных клубов

Юмен Чаабан, Раниа Соуалхи

IFLA Journal, 44–4, 269–280

Аннотация:

Несмотря на свое широкое распространение во многих частях света, книжные клубы обделены вниманием представителей академических исследовательских кругов. Целью настоящей работы является формирование понимания статуса книжных клубов в частности в арабском мире. Восемнадцать модераторов из шести арабских стран представили детальную картину текущего состояния арабских книжных клубов. Результаты показывают, что арабские книжные клубы функционируют согласно нескольким различным моделям: от формализованных, досконально структурированных заседаний, до неформальных дружеских встреч. В ходе исследования также были выявлены мотивирующие факторы для создания книжных клубов в арабских странах. В этом плане участники в первую очередь рассчитывают на самосовершенствование, улучшение межличностных отношений и рост социальной ответственности. При этом, согласно восприятию участников данного исследования, арабские книжные клубы сталкиваются с некоторыми сложными вопросами. В рамках настоящей работы были изложены предложения, направленные на обеспечение устойчивого развития арабских книжных клубов. В ней также подчеркивается, что выводы, сделанные в ходе исследования, могут послужить для сообщества библиотекарей, педагогов и широкой общественности в целом движущей силой, направленной на продолжение текущих процессов.

Research data management and sharing among researchers in Arab universities

Управление и обмен научными данными среди исследователей в арабских университетах

Амани М. Эльсайед, Эмад Иса Салех

Аннотация:

В данной работе рассматриваются текущие методы, используемые исследователями для управления и обмена научными данными. Был проведен интернет-опрос среди научных работников из трех арабских университетов в Египте, Иордании и Саудовской Аравии. В общей сложности анкеты заполнили 337 участников. Результаты показали, что 97% исследователей были ответственны за свои научные данные, и что 64,4% исследователей обменивались своими данными. Ключевыми факторами, которые побуждали исследователей к обмену данными, были внесение собственного вклада в научный прогресс, увеличение количества ссылок на научные работы и повышение наглядности научного материала. При этом главными предметами беспокойства тех, кто не желал обмениваться данными, были конфиденциальный характер данных и опасение, что данные будут использованы ненадлежащим образом. В заключении статьи приводятся некоторые рекомендации относительно улучшения методов управления и обмена данными.

The hidden heritage of Arab libraries: Online catalogs and institutional barriers to discoverability

Скрытое наследие арабских библиотек: онлайн-каталоги и организационные барьеры в поиске информации

Чарльз Курцман, Джон Дэниел Мартин III

Аннотация:

Казалось бы, технологический прогресс сделал доступ к информации о библиотечных фондах универсальным элементом взаимодействия с современными библиотеками. Однако такого рода доступом можно воспользоваться не во всех странах мира. Огромное "скрытое наследие" хранится в арабских библиотеках, не имеющих онлайн-каталогов, доступных широкой аудитории. В настоящей статье излагаются и резюмируются результаты исследования, проведенного в рамках длившейся один год научно-исследовательской работы в области международного сотрудничества в арабских библиотеках. Исследование включало в себя: (а) анализ присутствия арабских библиотек онлайн, (b) опрос библиотекарей арабских библиотек, и (с) тематические коллективные обсуждения с арабскими библиотекарями и работниками библиотек, занимающимися научной работой. В результате исследования был сделан вывод, что относительно небольшое присутствие библиотек онлайн не может объясняться только материальными факторами: в вопросе отсутствия информации о фондах библиотек в сети большую роль играют также организационные факторы.

Momentous moment: Rediscovering Korean history through digitizing private letters

Знаменательный момент: по-новому открываем историю Кореи путем оцифровывания частной переписки

Хье-Ын Ли, Хана Ким, Джису Ли

Аннотация:

Целью настоящей работы является обзор развития цифрового архива Коллекции переписки семейства Мин из библиотеки Университета Торонто, первой коллекции корейских исторических рукописей в Канаде. В рамках данного стратегического проекта по переводу документов в электронную форму между библиотеками Университета Торонто и Национальной библиотекой Кореи были проделаны следующие операции: анализ содержания рукописей и снабжение их примечаниями, создание метаданных и расширенного доступа к ресурсам. Данное исследование в итоге показало, что одним из решающих факторов успешной реализации проекта по переводу документов в электронную форму является наведение мостов в духе партнерства между двумя организациями. Нашей главной целью в рамках данного исследования было сформировать более глубокое понимание процесса разработки электронного архива для азиатских исторических рукописей, а также изучить методы, позволяющие улучшить доступ к редким историческим записям.

Open-Book Management in Libraries: A Case Study of Bibliotheca Alexandrina

Система открытого управления в библиотеках: анализ на примере Библиотеки Александрина

Нехал Фуад Исмаэль

IFLA Journal, 44–4, 323–339

Аннотация:

Цель настоящей работы заключается в определении требований к использованию системы открытого управления (ОВМ) и описании стадий и этапов внедрения этой новой методики управления в библиотеках различных типов. Исследователь избрал Библиотеку Александрина, как великий храм культуры, для определения уровня внедрения ОВМ с точки зрения работников библиотеки с тем, чтобы идентифицировать сдерживающие факторы, которые препятствуют полномасштабному применению ОВМ в библиотеке.

Resúmenes

Learning strategies for engagement and retention of young audiences

Estrategias de aprendizaje para atraer y retener a los jóvenes

Luz Santa Maria Muxica

IFLA Journal, 44–4, 258–268

Resumen:

En este artículo se examinan las publicaciones disponibles sobre el tema de la atracción de los jóvenes a las bibliotecas, los museos y los teatros, y sobre las estrategias de las bibliotecas para lograr un público fiel. Las recomendaciones extraídas de la revisión sirven como sugerencias para la Biblioteca Latinoamericana para Niños y Jóvenes que se encuentra actualmente en fase de planificación. Las ideas relacionadas con el programa, las asociaciones, la comunicación y la promoción de las bibliotecas en el contexto del siglo XXI se explican de acuerdo con un enfoque de audiencia que hace hincapié en la presencia de los niños y los jóvenes, las demandas y la motivación de los participantes culturales, y la necesidad de activar derechos culturales.

Promoting reading in the Arab world: The book club model

Promoción de la lectura en el mundo árabe: el modelo del club de lectores

Youmen Chaaban, Rania Sawalhi

IFLA Journal, 44–4, 269–280

Resumen:

A pesar de su proliferación en muchas partes del mundo, los clubes de lectores han recibido poca atención por parte de los investigadores académicos. Este estudio tiene por objeto conocer el estado de los clubes de lectores, especialmente en el mundo árabe. Dieciocho moderadores de seis países árabes proporcionaron un panorama detallado del estado de los clubes de lectores árabes. Las conclusiones indicaron que los clubes de lectores árabes funcionan de formas muy distintas: desde reuniones formales altamente estructuradas hasta encuentros amistosos informales. El estudio también reveló las motivaciones para fundar clubes de lectura en el mundo árabe. A este respecto, los participantes señalaron altas expectativas de crecimiento personal, relaciones interpersonales y responsabilidad social. Sin embargo, los clubes de lectores árabes afrontaban diversos retos, según los participantes de este estudio. Se realizaron varias sugerencias para lograr la sostenibilidad de estos clubes. También se hace hincapié en las implicaciones de las conclusiones para los bibliotecarios, los educadores y el público en general, de cara a promover su continuidad.

Research data management and sharing among researchers in Arab universities

Gestión e intercambio de datos de investigación entre los investigadores de universidades árabes

Amany M. Elsayed, Emad Isa Saleh

IFLA Journal, 44-4, 281–299

Resumen:

En este estudio se analizan las prácticas actuales de los investigadores relacionadas con la gestión y el intercambio de datos de investigación. Se realizó una encuesta online entre los investigadores de tres universidades árabes ubicadas en Egipto, Jordania y Arabia Saudí. En total 337 participantes rellenaron el cuestionario. El estudio indica que el 97% de los investigadores era responsable de sus datos de investigación y que el 64,4% de ellos compartía sus datos. Los factores que impulsaban a los investigadores a compartir sus datos eran contribuir al progreso científico e incrementar las citas y la visibilidad de las investigaciones. Las principales preocupaciones de aquellos que eran reacios a compartir los datos eran la confidencialidad y el uso indebido de los mismos.

Por último, se presentan algunas recomendaciones relacionadas con la mejora de las prácticas de gestión e intercambio de datos.

The hidden heritage of Arab libraries: Online catalogs and institutional barriers to discoverability

El patrimonio oculto de las bibliotecas árabes: catálogos online y barreras institucionales para la capacidad de descubrimiento

Charles Kurzman, John Daniel Martin III

IFLA Journal, 44–4, 300–310

Resumen:

Los avances tecnológicos han convertido el acceso a la información sobre los fondos bibliográficos en una característica aparentemente universal de interacción con las bibliotecas modernas. Sin embargo, este tipo de acceso no existe por igual en todo el mundo. Existe un vasto «patrimonio oculto» en las bibliotecas árabes sin catálogos de acceso público online. En este artículo se describen y resumen los resultados de la investigación realizada como parte de una investigación de un año sobre la colaboración internacional en las bibliotecas árabes. La investigación incluyó: a) una encuesta sobre la presencia online de bibliotecas árabes, b) una encuesta a bibliotecarios árabes, y c) mesas redondas con bibliotecarios árabes e investigadores de la biblioteconomía. Este estudio concluye que la presencia online relativamente pequeña de las bibliotecas no se puede explicar solo a través de factores materiales: los factores institucionales también desempeñan un papel importante en el mantenimiento de información sobre las colecciones de la biblioteca de forma offline.

Momentous moment: Rediscovering Korean history through digitizing private letters

Momento crítico: redescubrimiento de la historia coreana a través de la digitalización de cartas privadas

Hye-Eun Lee, Hana Kim, Jisu Lee

IFLA Journal, 44–4, 311–322

Resumen:

Este artículo tiene por objeto ofrecer una visión general del desarrollo de un archivo digital para la Colección de Cartas de la Familia Min de las Bibliotecas de la Universidad de Toronto, la primera colección manuscrita histórica coreana en Canadá. En este proyecto estratégico de digitalización entre las Bibliotecas de la Universidad de Toronto y la Biblioteca Nacional de Corea se llevaron a cabo las siguientes tareas: análisis de contenido y anotación de manuscritos, creación de metadatos y mejora del acceso a los recursos. Los resultados de este estudio demuestran que una de las principales claves del éxito de los proyectos de digitalización es la creación de puentes entre las dos organizaciones como una asociación. Uno de los principales objetivos de este estudio era aprender a desarrollar un archivo digital para los manuscritos históricos asiáticos y a mejorar la accesibilidad a registros históricos raros.

Open-Book Management in Libraries: A Case Study of Bibliotheca Alexandrina

Gestión de libros abiertos en bibliotecas: un caso práctico de la Biblioteca Alejandrina

Nehal Fouad Ismael

IFLA Journal, 44–4, 323–339

Resumen:

El estudio tiene por objeto definir los requisitos de la aplicación de la gestión de libros abiertos (OBM, por sus siglas en inglés) y describir las fases y los pasos de esta nueva metodología de gestión en distintos tipos de bibliotecas. El investigador eligió la Biblioteca Alejandrina como minarete cultural por excelencia para medir el grado de práctica de la OBM desde el punto de vista de sus empleados, al objeto de identificar las limitaciones para la plena aplicación de la OBM en la biblioteca.