

Flexible Strategies for Uncertain Times: An Innovative Approach to LIS Education in the Middle East and North Africa

Barbara B. Moran

School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC. E-mail address: moran@ils.unc.edu

Sumayya Ahmed

School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC.

Amanda B. Click

School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC.

Jacob Hill

School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC.

John D. Martin III

School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC.



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Abstract:

Countries in the Middle East and North Africa (MENA) are at important crossroads in becoming knowledge societies, despite complications caused by recent turmoil in the region. Although there are variations among countries in the area, on the whole there is great interest in increasing access to information and libraries. The need for library and information science (LIS) professionals in MENA is expected to grow significantly for many years to come. Since 2010, a group of LIS faculty and doctoral students from University of North Carolina at Chapel Hill have been involved in an international project, Educating Librarians in the Middle East: Building Bridges for the 21st Century (ELIME-21), working with partners in Egypt, Morocco and Lebanon to develop workshops, training opportunities and resources to help expand LIS education in MENA. Over the course of ELIME-21, the project personnel have responded to unpredictable conditions as a result of institutional changes,

ongoing conflict and political tumult by adapting their strategies for carrying out original plans. As a result, the methods for delivery of content and interaction with our international partners were changed to better accommodate circumstances. In-person workshops have been increasingly replaced with webinars and interactive, online lectures. Online training modules have been substituted for inperson training programs. These changes have resulted in unanticipated outcomes from the project, but fortunately the outcomes have exceeded goal expectations in terms of scope and quality. This paper is both a reflection on the activities and outcomes of ELIME-21 project and a discussion of how the work of this project could be extended to other developing countries. For example, LIS educators in developing countries could incorporate short freely available online modules into already existing classes, adapting the material to local conditions. More generally, those interested in developing similar international programs can benefit from the lessons learned by the ELIME-21 participants.

Keywords: Professional development, online education, Middle East and North Africa (MENA), global partnerships, developing countries.

Introduction & Background

In 2010 the School of Information and Library Science (SILS) at the University of North Carolina at Chapel Hill initiated a program funded by the Institute for Museum and Library Services (IMLS) in the United States. This program, "Educating Librarians in the Middle East: Building Bridges for the 21st Century: ELIME-21," was designed to fulfill two objectives. The first was to strengthen the education of librarians in the Middle East and North Africa (MENA). The countries in this area vary greatly in factors such as political structure and socioeconomic conditions, however, in almost all of them there is movement towards improving education and access to learning, and the need for professional librarians in the area is expected to increase significantly for many years to come. Although there are programs of library science education throughout the area most of the programs are at the undergraduate level and in almost 90% of the programs Arabic is the only language of instruction (ur-Rehman, 2009). The use of Arabic alone restricts what students are able to learn because of the scarcity of LIS textbooks or journals in that language. In addition, there is also a shortage of LIS faculty in these schools with the foreign language skills to enable them to stay up-to-date in this fast-changing field of library and information science (Sanabani and Elewah, 2010). Many libraries in the MENA region are forced to employ expatriate librarians from other Arab states or from other parts of the world because there are no citizens available with the needed expertise to carry out the complex responsibilities of information management (Al-Khatib & Johnson, 2001).

Thus the first goal of ELIME-21 was to work with three partner institutions in the region, The American University in Cairo, Egypt (AUC), Al Akhawayn University in Ifrane, Morocco (AUI), and the American University in Beirut, Lebanon (AUB), in developing courses in library and information science (LIS). These courses would be designed to lead to the establishment of graduate level LIS certificate programs and eventually master's degree programs that would contribute to expanding the educational opportunities available to LIS workers in the Middle East and North Africa. Faculty and doctoral students from the University of North Carolina at Chapel Hill planned to work with library staff and faculty from the partner institutions to develop and deliver a series of courses that would be the foundation for establishing graduate level LIS education in those universities. The second objective of the program was to prepare a cohort of LIS educators who would 1) learn to develop and deliver courses to meet the needs of LIS education in the Middle East and North

Africa, and 2) become experts in the culture and the society of the countries in that geographic area. So a key part of our grant was recruitment of a cohort of LIS doctoral students with an interest in the MENA region who would share that familiarity with future colleagues and students throughout their careers. If the PhD graduates became faculty in LIS schools in the US, they would be able to share valuable knowledge with future librarians about providing services to the growing number of Middle Eastern and North African immigrants to the United States. As originally written, the grant envisioned faculty and PhD students from UNC spending significant time in the partner institutions both developing and teaching the courses that would be offered.

The proposal for the ELIME grant was written in 2009 and the political climate in the MENA region has changed dramatically since then. If we knew then what we know now, we would not have proposed a project that centered on students and faculty from the United States providing on-site education. Although the original plan was to develop hybrid courses taught partially on-site and partially online, each of these courses involved a faculty member, a student or both at the partner institution for a portion of the course. Given the ongoing political upheaval throughout the region, we have had to consider alternative modes of engagement with our partner institutions. At the present time, faculty and students from UNC are not permitted by the university to travel to either Cairo or Beirut because of security concerns. But in addition to the changing political conditions in the Middle East, we also encountered other unexpected alterations such as changes in staff both at the library and university level in our partner institutions and shifting education priorities in these institutions as they adapted to the changing political and economic environments in which they now operate. So, the ELIME-21 project participants also had to modify some of their procedures and objectives. From past cooperative ventures at the University of North Carolina we had grown accustomed to the need to be flexible. Success depends on knowing when to change your plans and being open to new opportunities. We were fortunate that our funding agency, IMLS, was also open and flexible enough to permit these changes. The modifications in our original design have led to a different focus but one that we feel is a better one than originally envisioned. The original proposal focused on establishing graduate certificate level programs at three institutions. The new focus will allow us to work with a broader set of international partners and has the potential for greater impact on improving LIS education, both for students and practitioners not only in the Middle East and North Africa but ultimately in many other developing parts of the world.

Library and Information Science in the Middle East and North Africa

It is difficult to generalize the state of the field for every country in the MENA region. This section focuses on Egypt and Morocco, because ELIME-21 maintains strong ties with partners in these countries and the fellows have spent a great deal of time working with LIS professionals in these countries.

Egypt

In the fall of 2012, one of the ELIME-21 fellows conducted an informal needs assessment of the library and information science field in Egypt (Click, 2012). The assessment was informed by feedback from Egyptian LIS professionals collected via questionnaire and inperson observation of public, government, and academic libraries in Cairo. The Egyptian librarians are enthusiastic about their work and proud of their collections and facilities, but find that development is stymied by lack of resources and funding. Unfortunately, usage is

low in most types of libraries. Some institutions place so much emphasis on protecting materials, that they are practically unusable for patrons. Public libraries are the exception, and they seem to be more heavily used and appreciated by patrons than academic or government libraries. The LIS professionals who responded to the questionnaire indicate that academic programs need to be updated to include current trends in the field, and to meet the needs of the labor market. They want professors to teach more practical skills, but acknowledge that they need to be trained in new technologies first. Respondents emphasize that partnerships with "more advanced" universities and libraries, better educated faculty who have practical experience, and access to workshops and conferences would be highly beneficial to the field.

Librarianship and information science in Egypt has strong roots, and in many cases other Arab countries such as the United Arab Emirates and Qatar recruit Egyptian LIS professionals to run their libraries. But librarians in Egypt lament a lack of support and Cybrarians opportunities training professional development. for and (http://www.cybrarians.org/), a non-profit organization based in Cairo that is devoted to supporting librarians, recently distributed a survey on training needs to librarians in Arab countries. The findings indicate that popular training topics include the internet in libraries, digital libraries and electronic resources, databases, integrated library services, and technical processing (Cybrarians, 2013). Respondents overwhelmingly prefer to be trained by professional librarians (78%) as opposed to LIS faculty members (23%). While only 18% had experience with online training, 84% were interested in participating in online training opportunities. The results from the needs assessment and this survey have informed the development of ELIME-21 projects, including the Global Training Resources for Information Professionals (GTRIP) project, described below.

Morocco

Morocco, one of the North African countries in which ELIME-21 has partnered with institutions of higher learning, has a complex library and information situation. Traditionally, the country hosted a variety of de facto public libraries in the form of mosque libraries and the libraries of spiritual hostels. There was also a strong tradition of scholars amassing sizeable private collections some of which were made accessible to the public. Today, as Moulaison (2008) observed, "Moroccan libraries and archives are well-positioned to serve scholars." Yet, Moulaison is referring to the top-tier of national and international quality libraries that are often visited by foreign researchers. Few Moroccan youth, for example are able to take advantage of the limited network of neighborhood and city level libraries in the country. This is due in part to 1) relatively high levels of illiteracy, 2) lack of a strong culture of reading for pleasure among literate Moroccans, and 3) poor investment at the governmental level in providing adequate infrastructure and support for libraries including training for the staff who work in these institutions. With only 56 to 62 percent of its population being literate (UNESCO, 2014), illiteracy is a significant challenge to the ability of Morocco to make serious strides towards being a knowledge economy. Since 2012, there have been serious concerted efforts on the part of grassroots organizations to (re)build a culture of reading in the country. Some have connected reading to good citizenship and human development. In speaking with some of the leaders of these movements, one of the ELIME-21 fellows was told repeatedly that improving the amount and quality of reading in the county is directly tied to libraries.

School libraries are seen by many to be a major necessity for improving the quality of both education and reading in the country. Most elementary schools do not have libraries either

due to lack of funds or initiative on the part of the school directors. The few public libraries there are in the country are also, in the perspective of the reading activists, in need of a major overhaul especially concerning staffing and policies. According to one activist, the people who work in libraries in Morocco, who are often paraprofessionals without formal library science education, need to be trained to put the book in the hands of the reader. Another activist echoed this sentiment in saying that books need to be promoted by those who work in libraries.

This has not been the case historically in Morocco where the most common word used for library in Arabic is *khazana* which has a meaning akin to a "safe" or "treasure chest." Its root verb means to store, amass, or safekeep (Hans Wehr, 1994). The mentality in Moroccan libraries up to now has been primarily to keep books safe, which has often meant 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. This is also the case at the academic libraries in Morocco's public universities.

There is a dire need for LIS education in Morocco. As stated earlier, the high levels of illiteracy means that parents cannot be depended upon to provide an environment of reading in the home. The onus then falls upon schools, which in most cases lack school libraries or the qualified personnel needed to promote reading. The need for the professionalization of librarianship in Morocco is hindered, however, due to the existence of only one school of information science in Morocco, which does not itself have a focus on school libraries. The progression towards a complete knowledge society in Morocco will need to support this process.

Meeting the Needs of LIS Professionals

Information professionals in MENA have indicated both a desire for training and a motivation to learn new skills. This is, of course, not unique to information professionals in this particular region. Throughout the developing world there is a demand for increased training for information professionals, both to prepare them for their first job in a library and thereafter to provide continuing education to keep them current with new developments. At one time, almost the only way to provide such training was through in-person instruction. Either the staff members had to go to a location where they could be trained in-person or experts had to come to a work site and train the staff there. In the current world of online training options and MOOCs, there is an alternative method to training staff. Even now, entire degree programs of LIS education are available online but these programs typically are expensive and are often more than what is needed for the training needs of current staff. Many times what staff need are short, focused modules containing information that they would be able to put to work immediately. Originally, ELIME-21 was designed to work with three institutions in MENA to help develop graduate level LIS training. However, due to cost limitations and security concerns, the ELIME-21 project has shifted from a focus on inperson instruction to online modular resources. These units of instruction will vary in length but are generally not as long as regular course, although a number of related units could be taken in sequence and be equivalent to a course. This refocused project will provide library and information professionals with the opportunity to access training materials at anytime from anywhere in the world with a connection to the internet. The modular design will allow users to pick and choose the most appropriate resources, and build a custom-made training program. Through this project, ELIME-21 will meet the professional development needs of our partners and others in the MENA region and all over the world.

The GTRIP Project

The *Global Training Resources for Information Professionals* (GTRIP) project is conceived as a repository of modular and interactive content meant to support ongoing training and staff development of librarians and information professionals in environments with limited resources. The ELIME-21 project will be able to provide the initial steps in establishing GTRIP but in order to make it successful an ongoing effort supported by a number of partners will be necessary. The ELIME-21 fellows will provide the first set of materials in the repository. For example, in the next year we plan to contribute modules to the archive covering topics such as: setting up digital repositories; developing ingest workflows; interfacing catalog software with websites; improving reference services; creating a reference instruction program; etc. However, we hope that this will be just the beginning of a project that would grow much larger and more valuable with the help of partners.

Goals & Intended Audience

The goal of GTRIP is to provide training and professional development resources for librarians and information professionals at our partner institutions and elsewhere in world. The materials hosted on the site will be developed in a modular style, so that users can pick and choose their topics of interest. One of the benefits of developing content in this style is that users can focus their attention on areas of least familiarity and/or highest interest, and this flexibility will allow us to meet the needs of the largest number of users. Thus, the intended audience is defined broadly. The modules could be used by an LIS faculty member to supplement a lecture on library management, or by a cataloger who wants to learn more about metadata.

Justification for Method

Modular course design has its origins in the United Kingdom in the 1970s. Since that time, the efficacy and utility of such a pedagogical model has been called into question time and again. The purpose of modular courses has been to break educational courses and degrees into discrete, small units that can be engaged individually and then concatenated or compiled into a larger whole.

B. F. Gray raised the question in 1976 of why modular courses were a necessity or even defensible as an educational model going forward. He argued for the strength of modular course design based on their adaptability to student motivations:

The strongest educational reason for adopting modular courses is based on the flexibility they offer. Student motivation is a key factor in any course of study so that studying what one wants to study is liable to lead to greater success than studying what one is directed to study. Modular courses undoubtedly provide a basis for more attractive study programmes.

Modularization of curricula over the past forty years has led to the specialization of disciplinary and professional education. This specialization has necessitated the development

of very adaptable models for both academic and professional education conducted online. Courses and content are now broken into their smallest meaningful unit of instruction.

Students interact with online course content and materials differently than classroom courses. They are purposeful in their engagement with content and link activities with instrumental outcomes rather than a holistic drive for seeking knowledge (Murray, Pérez, Geist, Hedrick, & Steinbach, 2012). Professional development education requires this approach, as time tends to be limited for professionals seeking to keep their education current. As such, giving professionals the option to craft their ongoing education to specifically meet their needs is an important consideration in designing such courses (Salpeter, 2003). Allowing professional development students to tailor their experience to meet their goals and objectives increases the possibility that they will gain benefit from educational opportunities. Asynchronous delivery further enhances the experience by allowing professionals to meet the demands of their work life while continuing their education (Carr, 2010).

Extending existing models for online education and professional development through open online course environments (Coursera, edX, Khan Academy, CodeAcademy.com, etc.) is one way to further serve the needs of professionals in seeking ongoing educational opportunities. Another extension is engaging the aforementioned atomization of education to allow both students and instructors to select content and arrange it according to needs. This model for providing access to professional development access is at the core of our proposed system. Students and professionals will benefit from flexibility and variety of content. Instructors will benefit from having access to a new set of resources to add to existing courses or to aid in the development of new courses.

Adapting Materials to Local Conditions

GTRIP will allow for professionals and instructors to find and use educational content specific to LIS sub-disciplines in the most flexible manner possible. We have envisioned several scenarios for its ideal use in environments where there is little access to either resources or funding for continued training:

- library and information professionals seeking new skills or knowledge specific to their job tasks;
- professionals wishing to explore new areas in LIS;
- Instructors in new LIS programs or programs wishing to expand curriculum.

Given the general state of unevenness in training for LIS professionals in MENA discussed above, an adaptable approach to training is indicated, particularly for staff development purposes. The modular approach of GTRIP allows for the content to be placed with the context of a larger course, consumed as a freestanding element, or as part of a self-driven, learner-centered program. Modules are designed to be used together in series or alone in isolation to demonstrate a specific point or elaborate a skill of interest.

Project Outcomes

- Provide a corpus of online materials that support training and professional development of LIS professionals. These materials will be openly available and sustainable without requiring continuing maintenance.
- Build a global network of LIS professionals from all over the world.

• Identify partners to take on this project once the ELIME-21 grant has ended. Collaborate with these partners to develop a transition plan for the future.

Plans for the Future

The success or failure of the tool we envision is dependent upon several factors. The ability for end users to find the specific content they are searching for; the ability to distribute the heavy burden of content production across a vast network of trained professionals; the ability of those in need of training in specific areas to communicate their needs to the content producers; a stable institution to take responsibility for the long term maintenance of the project–these constitute the most fundamental needs that must be fulfilled if our efforts are to result in the production of a truly useful tool.

In order for this modular approach to be feasible, end users will need to be able to find the exact content they are looking for. To accomplish this, the modules must be accessible through a well-organized network of metadata. While many technologies could meet our needs, the semantic web¹ seems particularly appropriate. First, it would allow those organizing the information to record meaningful statements about the data without being tied to a rigid, predefined database design. As we are uncertain of all of the relationships we wish to record or the types of data that may prove useful, this flexibility seems particularly advantageous. It will allow for uploaders and users to access information in their native language and to link translations of a particular subject or term. This must be regarded as an essential feature, as our users will likely come from many diverse linguistic backgrounds. Finally, it has proven particularly adept at exchanging information in a distributed data system. This would likely be advantageous to any international project that relies on the effective exchange of information.

An effective plan for content production must be devised if the project is to survive and flourish. Possible strategies range from completely open content production like YouTube or Wikipedia, to carefully monitored peer-reviewed approaches like most academic journals. The former model excels in flexibility and the ease of management. Content is produced without invitation or review. Consequently, the quality occasionally suffers. The latter approach ensures a minimum standard across all content, but what it gains in quality it sacrifices in flexibility. It is unclear at this point what approach is most appropriate. It may be advantageous to adopt a hybrid approach at first, inviting presentations from trusted sources without editing the content. The approach could become more rigid and formal if the content proves to be of a lower quality than anticipated or more flexible if we are satisfied with the quality of each submission.

No development tool can be considered adequate without addressing the needs and desires of its users. For us, development is not a transitive concept. The end users must have the ability to voice their needs and concerns and, eventually, contribute to the production of content as well. GTRIP will be designed to allow two-way communication between content providers and content users, and not to increase the dependence of the content users on the producers. The model of development we envision, seeks to empower individuals and communities to address their own needs, and also make contributions to the field as a whole. To meet these goals, we feel it is essential for end users to communicate their needs through content

¹ An overview of the fundamentals of the semantic web is beyond the scope of this paper. For a thorough introduction, see Allemang and Hendler (2008) and Heath and Bizer (2011).

requests. These requests could be voted up or down by other users, alerting potential content producers to subjects of the highest priority to the largest population. This would not, alone, meet our own standards but it is an initial step towards addressing the concerns of the users and coupled with other technologies it could satisfy our requirements.

The first group of GTRIP modules will be available on the edX platform (www.edx.org). We chose this platform because it is free and open-source software and can be redistributed without restrictive licensing. However, the access mode will not be suitable for users in all parts of the world, especially those without reliable internet resources. For those users regions without reliable internet access, we think that a platform such as the eGranary Digital Library (http://www.widernet.org/egranary/) would be more appropriate. The eGranary also known as "The Internet in a Box" is an already existing resource that provides millions of digital educational resources to institutions lacking adequate Internet access. The eGranary is essentially a local network with a portion of the internet copied to a server. Users can read and write to the local server as needed. They receive disks periodically via international mail, that allow them to bring their local network up-to-date with the internet and they can publish to the web by sending disks the other way. The eGranary is housed at SILS and the ELIME-21 participants have discussed establishing a partnership with the eGranary, allowing our content to be hosted on their servers. This platform would provide users without reliable internet consistent access to the content and allow them the opportunity to contribute content as well. Cliff Missen, the Director of eGranary, is very enthusiastic about hosting the GTRIP modules on that site because he reports that library training materials are among the most requested resources on the eGranary.

Conclusion

At this point, we are just beginning to envision what a fully developed GTRIP might encompass. Obviously the success of the project will be dependent on attracting partners who will work with us and with each other to bring it to fulfillment. However, we are hopeful that we will be able to make it work for two reasons. First, there is a demonstrated need for a project such as this, not just in MENA but in many other parts of the world where information professionals are eager to provide better services and programs to the users of their libraries but lack the appropriate training to do so. Second, librarianship has traditionally been a profession based on sharing and partnerships. For instance, it was not too long ago that every library worked individually in cataloging its own materials. Now most libraries look to organizations such as OCLC to provide a mechanism for shared cooperative online cataloging. Perhaps we can take OCLC as a model of a way to provide shared online training resources for library professionals, especially those in the developing world. Instead of each library trying to mount individual training programs for staff, imagine a large online repository with training modules on many different topics. The modules would be of varying levels of complexity, in multiple languages and intended to meet the needs of users from a variety of cultural backgrounds. The contributors of the content of this repository will be LIS professionals from all over the world. LIS educators, LIS trainers or anyone who has developed a training module that could be used again in other settings would share their contributions on GTRIP to be reused by others. When a manager in an individual library sees that part of the staff needs training in a particular topic, that manager could find the resources for training on GTRIP. When a faculty member teaching in an LIS program anywhere in the world wants to supplement in-person classroom teaching with a module from GTRIP, that faculty member could plug a module into the ongoing classroom instruction and then provide any customization necessary to make it applicable to the needs of the students in that class.. If an information professional working in any library feels a need to expand his or her learning, that individual could go directly to GTRIP and find a module that would be suitable to supplement his or her knowledge on the spot.

Obviously we are a long way from realizing the dream of a fully-realized GTRIP. At present, there are more questions about how it could and should be done than solutions. GTRIP is definitely a work in progress, and we are only beginning to think about how to deal with many major issues such as appropriate partners, financial support, what types of training are most needed, how to keep the modules current and how to ensure the ongoing success of such a project. These are huge issues and perhaps they will not be solvable. However, our experiences on the ELIME-21 project have demonstrated to us the need for such a resource. We can only provide the initial steps in the process but we would like to work with any other organizations including IFLA to try to make it a success. If we want to make progress towards the theme that is the focus of this session, that of educating librarians in developing countries to build strong libraries to support strong societies, we need to find a way to provide affordable, current and accessible training to library professionals across the world.

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References

- Allemang, D. & Hendler, J. (2008). Semantic web for the working ontologist: modeling in RDF, RDFS and OWL. Amsterdam: Morgan Kaufmann Publishers.
- Al-Khatib, S. and I. M. Johnson. (2001). Libraries in major universities in Lebanon. *Libri*, *51*(4), 209-224. Retrieved from <u>http://www.librijournal.org/pdf/2001-4pp209-224.pdf</u>
- Carr, V. B. (2010). The viability of online education for professional development. *AASA Journal of Scholarship and Practice, 7*(3), 6-15. Retrieved from <u>http://www.aasa.org/uploadedFiles/Publications/Journals/AASA_Journal_of_</u> <u>Scholarship_and_Practice/JSPFall10.pdf</u>
- Click, A. B. (2012). *Information needs assessment: LIS in Egypt*. Internal report, not published.
- Cybrarians. (2013). Training need of library community in Arab countries: A report based on survey made by Cybrarians; the Arabic Portal for Librarianship and Information. Internal report, not published.
- Gray, B. F. (1976). Who wants modular courses? *Radio and Electronic Engineer*, *46*(1), 44-46. doi:10.1049/ree.1976.0006

- Heath, T. & Bizer, C. (2011). Linked data: evolving the web into a global data space (J. Hendler & F. van Harmelen, Eds.). Synthesis Lectures on the Semantic Web: Theory and Technology. San Rafael, California: Morgan and Claypool. <u>doi:10.2200/S00334ED1V01Y201102WBE001</u>
- Moulaison, H. (2008) Exploring access in the developing world: People, libraries and information technology in Morocco. *Library Hi Tech, 26*(4), 586 597. doi:10.1108/07378830810920914
- Murray, M., Pérez, J., Geist, D., & Hedrick, A. (2012). Student interaction with online course content: Build it and they might come. *Journal of Information Technology Education: Research*, 11(1), 125-140. Retrieved from <u>http://www.jite.org/documents/Vol11/JITEv11p125-140Murray1095.pdf</u>
- Salpeter, J. (2003). Professional development: 21st century models. *Technology & Learning*, 24(1), 34–50. Retrieved from http://www.techlearning.com/features/0039/professional-development-21st-century-models/45151
- Sanabani, M.A. and Elewah, M.A. (December 2010). Library profession: Challenges and future trends in the Arab world: Prospective study 2. *Cybrarians Journal*, 24, n.p. Original in Arabic. Retrieved from http://journal.cybrarians.info/index.php?option=com_content&view=article&id=494.
- United Nations Educational, Scientific and Cultural Organization. (2014). *Education for all global monitoring report* (1st ed.). Paris, France: UNESCO Publishing. Retrieved from <u>http://unesco.nl/sites/default/files/dossier/gmr 2013-4.pdf</u>
- ur-Rehman, S. (2009). Library education in the Middle East. In I. Abdullahi (Ed.), *Global Library and Information Science Education* (pp. 474-489). Munich, Germany: K.G. Saur.
- Wehr, H. (1994). *A dictionary of modern written Arabic: Arabic-English* (4th ed.). Ithaca, NY: Spoken Language Services.