

# A Competency Index for Research Librarians in Kenya

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## Abstract

*Discussion on competencies for librarians is not new. Several librarianship scholars and practitioners have proposed diverse skill-sets over the years. While some of these suggestions correspond, others contradict. Further, whereas specific skill-sets have been proposed for various types of libraries, only general job descriptions exist for research librarians. So far, there seems to be no in-depth competency specifications for any category of librarians in Kenya. Through documentary analysis, interviews, social network analysis and focus group discussions, this study investigated the essential skills, attitudes and personality traits that research librarians in Kenya should possess. The findings indicate that interpersonal, management, information communication technology, and research skills are increasingly becoming as important for research librarians as the traditional core librarianship competencies. The paper concludes that the development of such skills through training and retraining programmes should be prioritised.*

## Keywords

Competency index, Skills, Research librarians, Research libraries, Kenya

## Introduction

Although the basic professional tenets of librarianship remain the same, the methods, tools, scope and environment of information delivery continue to change dramatically (Special Libraries Association, 2003). Myburgh (2003) describes the emerging information environment as being hypertext, networked and digital (virtual) and characterised by disintermediation, convergence, connectedness, competition, globalisation, the information explosion and vacillating funding. Kigongo-Bukenya (1999) argues that the information landscape is now characterised by increased agitation by stakeholders for the use of new technologies in organising and communicating information transparently, professional differentiation to meet the special group interests, and “interdisciplinary”.

Gunasekara (2005) defines a research library as a reference library, which provides specialised information facilities where exhaustive investigation on a particular field is conducted. He adds that research libraries are established under specific research institutes. Kent, Lancour and Daily (1978) also agree that research libraries should collect information on the area of research pertinent to their parent institutes in greater depth than any other library. Research libraries ordinarily provide reference service, reference management, research space, information literacy training, management of research outputs, resource exchange, and access to online information resources and gateways.

Research libraries, just like the other library typologies, are continually facing new expectations from stakeholders. The Council on Library Information Resources (CLIR, 2008) explains that the research information landscape is currently characterised by ubiquitous, digitised, indexed and online access to content. CLIR (2008) also predicts that the research libraries of the future will be multi-institutional entities collaborating with multiple researchers, stakeholders and information providers; open to change and embracing discovery; and largely

digital, holding federated collections organised and delivered digitally through converged ubiquitous media. Such libraries will support the creation of research information, connect research communities, and provide the physical and virtual infrastructure to facilitate their use. Walker (2009) explains that research librarians are expected to be custodians of the physical and digital research information resources; managers of institutional repositories; administrators of information services; experts in subject information, information literacy and the management of vast research data sets; and providers of specialised information technology services.

Knight (2009) argues that the dynamic information environment requires versatile and better-educated information professionals who, besides librarianship and technical information skills, also possess good change management, communication, leadership and people management skills. Although some scholars (Salter 2003; Abram 2005) advocate for a new breed of librarian, i.e. Librarian 2.0, others (Gutsche 2010) argue that a review of the skills, knowledge, behaviour and attitudes of progressive librarians should possess would mainstream the profession in the emerging information ecology. Opinion is also divided on whether each librarian should possess all the skills. Some practitioners argue that the more the merrier while others hold the view that the essential skills differ depending on the context of the librarians. The latter group explain that research libraries can benefit more from a synergy of skills from different librarians than multi-skilled individuals (Partridge, Lee and Munro 2010).

## Literature Review

Limited literature exists on the competency requirements of library and information professionals in Kenya. Only two works were identified. Shiholo (1999) conducted a study on competency requirements for information professionals of the 21<sup>st</sup> Century and concluded that information technology and management were rated high. Specifically, he identified knowledge of library automation activities, networking, databases, online searching, and information systems development as some of the competency areas modern information professionals

would need. Shiholo and Ocholla (2003) investigated trends in the training needs of information professionals in Kenya. They explain that in the early 1980s, the focus of information training moved to databases, information technology, library automation, public relations and communication, and that the 1990s witnessed an increase in the demand of technology-related competencies including computer applications and programming, networking, media technology, and information systems management.

Other studies only mention required librarian competencies in the context of African countries collectively, and/or Kenya in passing. Among these, Nyakundi and Mnjama (2007) explain that there is increased demand for competencies of the Internet, World Wide Web, as well as online and offline electronic databases. The Commission for Higher Education (CHE) (2007) provides general guidelines and standards for the staffing of academic libraries in Kenya. Aina (2005) argues that an ideal LIS curriculum should have modules on library concepts, information and communication technology, archives and records management, rural information service, research, management, publishing and public relations. Westhuizen and Randall (2005) identify a number of skills as necessary for information specialists supporting research, including facilitation of learning process, value addition to products, current awareness, web newsletter support, searching techniques, metadata management, business sense, web product development, copyright knowledge, communication, evaluation of information, research tools knowledge, e-scholarship, proficiency in digitisation processes, leadership, client relationship management, change management, flexibility, mentorship, knowledge management, IT literacy, and critical thinking. Ocholla and Bothma (2007) suggest that the emerging economic environment demands information professionals with research, communication, customer care and interpersonal skills.

## Some Existing Competency Indices

Competency indices define requirements needed for workers to perform and meet the needs of a specific job (Rothwell and Lindholm 1991). The indices can be used for benchmarking, evaluation and to

determine education requirements for positions. Competency indices deconstruct positions into knowledge, skills, values and attributes which determine success of the bearers (Soutter 2007). Competency indices are much broader than traditional task-oriented skills in job descriptions. They are used to clarify common goals to all employees, identify employee skill gaps, develop training programmes, recruit qualified staff, reward achievements and retain staff (McNeil 2002).

The Association of South-eastern Research Libraries (ASERL) in the United States of America developed a set of competencies desired of research librarians (ASERL 1999). However, a review of the competencies reveal that the association focused on academic libraries and not research libraries as per our definition above. Nonetheless, it states that the attributes of a successful research librarian include intellectual curiosity, flexibility, adaptability, persistence, and entrepreneurship. The association also emphasises communication skills, commitment to life-long learning and personal career development. Other mentioned competency areas include information resources management, technology and innovation, principles of librarianship, strategic planning, library cooperation and collaboration.

Middleton (2003) conducted a survey of the skills LIS graduates are expected to have. He identified 189 skills which he categorised as collection building and management, communication, facilities and equipment, information organisation, information services, information systems, management, marketing, and research. The American Library Association (ALA) in 2009 approved the basic knowledge anyone graduating from ALA accredited Master's programmes in library and information studies should have (ALA, 2009). This body of knowledge covers librarianship theory; information resources acquisition, organisation and management; knowledge and information management; emerging information and communication technology; reference and user services; quantitative and qualitative research; continuing education and lifelong learning, administration and management. Critically, ALA (2009) also emphasises that professional librarians need certification or licensure.

WebJunction (2009) presents a detailed

competency index for a wide spectrum of librarianship fields. The index was aggregated from competency definitions of several librarianship associations, as well as practitioners mainly drawn from the United States of America. The index covers library management, personal and interpersonal, public services, technical services, and technology skills. Library management includes competencies to manage budgets, community relations, library physical space, laws, procedures and policies, marketing, organisational leadership, personnel management, project management, staff training and development, and strategic planning. The personal and interpersonal competencies include communication, customer service, ethics and values. Public service competencies include access services, specialised user (adult, youth, and children) services, collection development and patron training. The technical competencies cover acquisition and processing, cataloguing, collection management and preservation of information resources. The technology competencies include electronic communication, core hardware, Internet, core software, core operating systems, applications, web design and development, enterprise computing, networking and security, server administration, technology project management, technology policy development and technology training.

The University of Florida's George A. Smathers Libraries have also developed a competency index for their librarians (University of Florida 2011). These competencies include institutional, interpersonal, management, technology, public service, cataloguing, acquisitions, and preservation and binding competencies. The institutional competencies include understanding the place of the library in its parent institution. The interpersonal competencies are identified as communication, presentation, collaboration (teamwork), adaptability, and independence. Planning, budgeting, facilities and human resource management are some of the management competencies listed. Various levels of technology competencies have also been proposed. Basic understanding of computer hardware and software, ability to perform basic Internet tasks including searching and use of social networking tools, and IT security are listed as core technology competencies. Circulation, information and research assistance,

inter-library loan, stack management, policies and procedures are considered core public service competencies.

Despite the above and other efforts to develop competency indices for librarians generally or research librarians in particular, no serious attempts have been made to develop competency indices for librarians in Africa, and specifically, Kenya. Indeed, no literature providing an in-depth competency index for library and information professionals in Kenya was found. This study sought to address this apparent knowledge gap by investigating, harmonising and documenting a set of competencies for research librarians in Kenya.

## Methodology

This study was conducted through interpretive qualitative case study. The data was collected in 2010 from sixteen librarians and 162 researchers in five national and international research institutions in Kenya. The research institutions are the African Medical and Research Foundation (AMREF), International Livestock Research Institute (ILRI), Kenya Medical Research Institute (KEMRI), Kenya Agricultural Research Institute (KARI), and the International Centre for Agroforestry Research (ICRAF) which is also known as the World Agroforestry Centre. The authors used information-oriented case study sampling strategy to select the five libraries. As Flyvbjerg (2006) explains random sampling focuses on representativeness alone while information-oriented sampling also focuses on expectations of information content of the cases. The cases were selected based on the amount and quality of information they had the potential to generate.

Data was collected through individual face to face interviews with the sixteen librarians and 162 researchers; ten focus group discussions (two for each case library) with groups of five to seven researchers; one focus group discussion with five middle-level librarians; and one half-day workshop with five senior librarians. Additional data was collected through participant observations both directly and through mystery shopping within the case libraries (Copies of the various instruments are available upon request from the first author). Mystery shopping was done by research assistants unfamiliar to the case library staff. These assistants

posed as any other ordinary library user and experienced the services first hand. As Hogg and Gabbott (1996) suggest, mystery shopping was used in recognition of the fact that: (a) there is a discrepancy between real and reported behaviour; (ii) often facts are brought to light in the context of natural settings and may not be obtained through questioning; and (iii) the verbal capabilities of the interviewee may limit the quality and quantity of information gathered.

Relevant interview schedules, focus group discussion guides, observation checklists and mystery shopping scenarios were used. Data on social networks and collaboration between the librarians was collected through social network analysis. The analysis was based on co-authorship of publications listed in the online Web of Science comprising the Science Citation Index; Social Science Citation Index; Arts and Humanities Citation Index; Conference Proceedings Citation Index – Science; and Conference Proceedings Citation Index – Social Science and Humanities.

The data was analysed through content analysis, conversation analysis and Heideggerian hermeneutics. Content analysis was used to examine the content and context of various secondary data obtained from documents, as well as primary data obtained through interviews and focus group discussions. On the other hand, conversation analysis which involved making a moment-by-moment, turn-by-turn “transcript” of the actions in each encounter and examination of these encounters individually and then comparatively to reveal a practice’s generalisable orderliness was used for the analysis of the data collected from the focus group discussion and interviews with researchers and librarians. The Heideggerian hermeneutics approach focuses on how people interpret their lives and attach meaning to their experiences. This approach recognises that the data generated by the research subjects becomes fused with the experience of the researcher during research. This means that the views of the researcher cannot be bracketed off, thereby recognising that no researcher can come to the study with suspended preconceptions. This technique was used to interpret the basic terminology and the meanings of the issues and events observed and/or captured by other means during the study.

Reliability was ensured through accurate

coding, issuing of explicit instructions to the participants during the study as well as maintaining objectivity throughout the process. On the other hand, validity was ensured through methodological triangulation, pre-testing of the data collection tools through cognitive (intensive) interviews with researchers and librarians, and use of appropriate samples which were truly representative of the research population.

## Findings and Discussion

### The State of Kenyan Research Libraries and Librarians

No official inventory exists but the findings of this study indicate that there are about 25 research libraries in Kenya. All these libraries are attached to research institutions working on specific research areas such as agroforestry, fisheries, agriculture, livestock, policy analysis, economics, population, and health, among others.

### Background Information

Of the 162 researchers who participated in the study, 88 (54%) were male while 46% were female. Further, 52 (32%) of the researchers interviewed were between 31 and 40 years of age. Forty-eight researchers (30%) were between 20 and 30 years of age; 49 (30%) researchers were between 41 and 50 years of age; while 13 (8%) were over 50 years old. Similarly, sixty nine (43%) of the researchers interviewed currently had master's degrees. There is also a sizable portion – eighteen (11%) – that had professional diplomas. This latter category comprises mainly technologists supporting the research process, especially in the laboratories. Only 21% of the researchers interviewed possessed a PhD, which is evidently low. The study concluded that the average researcher in Kenya is equally likely to be a male or female individual aged 31-50 years who holds a master's degree. These findings imply that the researchers are relatively young and are likely to use the research libraries for many years.

The case study libraries employed a total of twenty professional librarians. Of these, sixteen, representing 80%, were interviewed. One half (eight) of the librarians interviewed were male while the other half were female. Six (37%) of the

librarians were below 30 years of age while four (25%) were between 31 and 40 years of age. Thus, ten (62%) of the librarians were below 40 years of age. Seven (44%) of the librarians possessed bachelor's degrees, while six (37%) had master's degrees. Some of the librarians had also had specialised training in the areas of research of their institutions such as agriculture, botany and biological sciences. None of the research librarians interviewed had a PhD degree even though some have enrolled for such degrees. Thus, the study concluded that the average research librarian in Kenya is below 40 years of age and holds a bachelor's degree. Though there is no major gender imbalance amongst the research librarians, it is noteworthy that all the five case libraries were headed by female librarians.

### Social Networking

The findings from social network analysis revealed that there was not even one publication co-authored or authored individually by librarians in the case libraries. This is a matter of great concern as it may be a true pointer to the possibility that the research librarians in Kenya do not undertake much research themselves. This finding hints to a major competency gap and seems to imply that the research librarians in Kenya are not active in research, and thus may not be adequately competent to support researchers. During the focus group discussions, both the researchers and the librarians agreed that if the research librarians conducted their own research they would acquire skills and experiences which would enable them to engage more effectively with the researchers. They noted further that active participation in research would also enable librarians to get better recognition and attract funding to the libraries and the institution at large. Both the researchers and the librarians recommended that a research librarian, at whatever level, should possess fundamental understanding of the research methods, theoretical frameworks, current research issues and the latest research findings in the specific areas of service. They also opined that providing librarians with research skills would enable them to acquire research status in their parent institutions, thereby providing them access to research funding and favourable working conditions.

### Strategic Management Competency

The study also found out that most of the research librarians did not have effective strategic management competency. In fact, none of the five case libraries had a documented strategic plan. Instead, they were guided by the corporate strategic plans of their parent institutions. Unfortunately, the corporate strategic plans make nominal mention of libraries and do not provide adequate details on the goals the libraries ought to achieve and how. The situation is exacerbated by the fact that most of the librarians did not participate actively in the development of these corporate plans, partly because of their perceived incompetence in strategic management. Both the researchers and the librarians in their respective focus discussion groups underscored the value of effective strategic management in anticipating and managing change in and around the libraries, and in mobilising resources, demonstrating and justifying the return on investment in the library to the parent institutions, and aligning the library services to the emerging needs of the institutions. It was encouraging, however, that the librarians in all the case libraries said that in recognition of the potential value of strategic management to the survival of the libraries, they would develop strategic plans within a year or so.

### **Customer Care**

Information on elements of customer care, which was obtained through mystery shopping, focus group discussions and interviews, revealed that many research librarians in Kenya lack good interpersonal skills as cases of rudeness, incompetence in responding to user needs, desertion of library reception areas and service desks, pre-occupation with other tasks when attending to users, poor communication, and lack of commitment to keep the promises made to customers were found to be rampant in the case libraries. This poor state of customer service can be attributed to the personality of librarians, poor training of librarians in customer care, lack of documented and internalised customer service standards and policies in the libraries, lack of motivation, understaffing, poor work environment and lack of adequate tools to meet the needs of the users. In acknowledging the fact that good customer care keeps the librarians and libraries relevant in a fast changing world, the researchers and the

librarians recommended that research librarians should possess certain basic interpersonal skills which would enable them to provide superior services to the users. Both the researchers and librarians also recommended that appropriate actions should be taken immediately to remedy the sorry customer service situation in the research libraries. Even though no particular approach was recommended, development of customer service standards and empowerment of librarians to comply with them should be considered as some of the critical elements of the possible remedial measures. Similarly, it was proposed that the library and information studies curricula should be revised to prepare the students adequately for future responsibilities in offering acceptable customer care in research libraries.

### **Findings from the Focus Group Discussions**

The findings from the focus group discussions and interviews with both the researchers and the librarians underscored the fact that research libraries should harness the power of the latest ICT tools to provide superior library services to the researchers, some of whom are already using these tools individually or through social networks to seek information. It was also suggested that the research library should be integrated with the institutional websites, Extranets and Intranets. It was also proposed that where possible, depending on the preferences of the users, the libraries should also embrace Web 2.0 interactive tools such as blogs, wikis, and folksonomies, among others, to support the services rendered to the users. The importance of ICT tools in delivering library services was underscored by the findings from interviews with the researchers and corroborated by the librarians that the users value the Internet and access to online journals and online research papers as the services most important to them. Consequently, the researchers and librarians proposed that research librarians should have the requisite technology competencies including web publishing, multimedia and ICT systems management skills to maximise the potential of these tools to the user community.

### **Social Networking**

The findings from social network analysis showed that there are loosely-knit social networks around

and within research libraries in Kenya and their parent institutions, the full potential of which has neither been harnessed nor realised. Such networks could facilitate pooling of information resources, funds and ideas for the benefit of research in the country. The researchers and librarians explained that this scenario is attributable to the lack of adequate networking and alliance building skills among the research librarians. Another possible explanation of the situation was deemed by the respondents to be the lack of effective communication mechanisms between researchers from different organisations. The respondents also explained that this challenge can be reduced through the adoption of simple, generally free and versatile Web 2.0 and other technological tools. The fact that most libraries are not maximising the potential of these tools is mainly attributed to the lack of knowledge and skills among the research librarians regarding these tools as earlier stated.

### **Research Library Services**

The need to promote the research library services also emerged as an important determinant of how effective the research libraries play their role. Currently, the libraries seem to be waiting for users and, to a large extent, only offering what the users ask for. Consequently, there is some gap between what the researchers know they can get from the libraries and what the libraries have the potential for or are actually offering. Whether they are managing organisational knowledge or creating a platform for interaction for researchers, the fulfilment of these research library roles largely depends on how well the users understand the services and products of the library and are facilitated to use them. The respondents asserted that outreach to the users by the libraries is of paramount importance now more than ever given the existence of several alternative sources of information which compete with the libraries for the users. As one of the users said during the interviews, “times have changed and the Internet poses a real challenge because users will only come to the library if they know they can get services which are better than or on a par with what is offered by alternatives.” The respondents suggested that the research libraries should conduct vibrant and dynamic marketing campaigns to increase the users’

awareness of the library services and products, as well as educate them on how to make the best use of the library. Consequently, they proposed that research librarians should possess some basic marketing and information promotion skills.

### **Interviews and Focus Group Discussions with Librarians**

The findings from the interviews and focus group discussions with librarians also confirmed that most of the librarians are not aware of the models of library service they are using. It emerged that most of the time the services are planned based on what similar libraries are offering. It was recommended that research librarians should be grounded on the conventional and emerging library service models.

Generally, there was consensus between the researchers and the librarians that the research libraries in Kenya are underutilised. The findings indicated that most of the researchers only use the library when they are undertaking programmes of study. Consequently, the level of usage varied depending on whether one was studying for a qualification or not. This fact was corroborated by the librarians who said that most of the researchers used the library more when they are undertaking some studies or when they are writing research reports or proposals. The findings also showed that the usage and the membership of the research libraries have reduced over the past three or so years with sixty six (51%) of the researchers interviewed saying that they would stop their membership in the next three or so years. Most of the factors identified as affecting the usage of the libraries relate to inadequate staffing. Thus, we hold the view that improving the competencies of the research librarians will enrich the research library experience in Kenya. Indeed, the researchers suggested that retraining the library staff on ICTs, public relations and marketing, as well as supporting continuous training of librarians through short courses and workshops would improve the services in research libraries.

### **Toward the Development of the Competency Index**

In this section, the authors categorise, discuss and summarise the competencies that research librarians

in Kenya need to have based on the findings of this study from the literature review and the various data collection and analyses that were performed. Five main competency areas are identified, explored and discussed: technical professional, personal and interpersonal, ICTs, management and research.

### **Technical Professional Competencies**

Even though most scholars (McNeil 2002; Shiholo and Ocholla 2003; SLA 2003; Soutter 2007; ALA 2009) agree that librarians now do more than the traditional tasks, they emphasise that technical librarianship skills are still important. These technical competencies can be generally categorised as management of information resources, information services and proficiency in information management and dissemination tools and techniques.

The librarians still need the capacity to manage the full cycle of information, that is, from creation or acquisition to disposal; build collection of all formats through ownership, access and other means; develop in-depth knowledge of the content of the collection; provide best access to the collection physically and virtually; and maintain the collection through suitable preservation and conservation techniques.

It is also paramount that the librarians possess skills to provide cost-effective user-centric information services, review the services constantly, employ evidence-based approaches of information service design and delivery, provide information and not just information resources, and empower users to self-serve. Thus, the librarians should be able to execute a suitable circulation and lending service, inter-library loaning, reference, stack management and binding services to the researchers. The tools research librarians should master include online and offline databases, indexing, cataloguing, classification and abstracting tools, library management systems, thesauri and online public access cataloguing systems.

### **Personal and Interpersonal Competencies**

Partridge, Lee and Munro (2010) argue that some personal traits may be more important to research librarians than technical skills. Some of these personal traits include passion, enthusiasm, good grooming, “spark”, resilience, curiosity, self-drive, and open-mindedness. Other attributes include independence, moral integrity, action-orientation, patience,

diplomacy, sensitivity, personal commitment and customer-orientation (Myburgh 2003).

Progressive librarians should not shy away from using non-traditional approaches to information organisation and readily use tagging, tag clouds and folksonomies where appropriate. The librarians should also readily embrace non-textual content such as videos, pictures, sight and sound (Singhal 2010).

It is also important that modern librarians have a flexible attitude. Cohen (2006) proposes a seventeen-point manifesto of the desired ethos and attitudes of the modern librarians. The manifesto calls on the librarians to recognise the changes around the libraries and users and adapt to them without sticking to or defending the status quo but to participate actively in moving the library forward by proposing and experimenting with new services and products. The manifesto also requires the librarians to recognise the role of the users in determining what and how they are served. It also urges the librarians to be willing to go where the users are. This is important because researchers are increasingly migrating online and trying to bring them back to the offline environment may be futile. The new information ecology demands that librarians no longer offer services from behind a desk. The new role of librarians is not only offering a good service but also a good customer experience whether it is physical or virtual. Wittenborg (2011) also explains that the comfortable, predictable librarianship routines are gone –the only routine now is change – and adds that only the librarians who learn how to thrive in it will survive.

Partridge, Lee and Munro (2010) and WebJunction (2009) propose that progressive librarians need more than ordinary oral and written communication skills to engage effectively with diverse audiences using a variety of tools and methods. They suggest that these librarians should also have advocacy, lobbying, negotiation, diplomacy, conflict resolution, marketing, and promotion skills. They also suggest that the librarians should have good presentation skills.

Progressive librarians should also be competent in community relations. This competency would enable the librarians to demonstrate the value and impact of the library effectively; build support for the library; maintain positive public relations; and form strategic partnerships. The skills would also be



useful for creating a warm, friendly, safe, and healthy physical, social and virtual library environment that encourages the members of the community to use the library (WebJunction 2009).

A progressive librarian should be an educator, trainer or guide. This role is particularly critical since there are many complex issues and tools in the emerging information environment that the researchers cannot handle effectively on their own (Partridge, Lee and Munro 2010). Progressive librarians also need life skills such as problem solving, critical thinking, effective communication, teamwork and ethical thinking which complement their discipline-specific skills and professional knowledge (Partridge and Hallam 2004). Modern librarians should learn to establish connections with information and not libraries per se; embrace the role of a teacher; adopt marketing approach to library service design and delivery; and have confidence to embrace the future (Saint-Onge 2009). Partridge and Hallam (2004) also emphasise that teaching, marketing and customer service skills are critical for all librarians of the 21<sup>st</sup> Century.

Partridge, Lee and Munro (2010) also propose that modern librarians should have collaboration, networking and teamwork skills. These are invaluable to research librarians because research is taking a multi-disciplinary dimension. There are many players that work to make the library experience appropriate for researchers and the librarian must be able to synergise with them to concoct this experience. Such librarians do not only collaborate with individuals but also with groups, associations, communities and institutions. Myburgh (2003) also suggests that in a globalised world, librarians now need to understand at least one more language spoken by its core publics going beyond the common lingua-franca.

### **Information and Communication Technology (ICT) Competencies**

King (2007) proposes a set of ICT skills a librarian should possess. These include ability to write and post to a blog; create, upload, and edit photos, short videos, podcasts and screen casts; edit an avatar's appearance; and, know how to select a new device and figure out how to use it. Partridge and Hallam (2004) suggest that web content management has

also emerged as an important skill area that modern librarians should master.

Stephens (2006) suggests that modern librarians should control technology by not adopting technologies just because it is "cool" to do so; make decisions fast (with the help of the researchers) since research projects are time-bound; and embrace Web 2.0 tools. He also argues that modern librarians are trend-spotters who are constantly scouting for change in the library environment which may impact their institutions and users.

Progressive librarians should have adequate skills to enable them to manage their email, hardware, Internet, operating systems, software applications, servers, computer networks and electronic publishing (including web publishing), according to WebJunction (2009). Besides, the librarians should be able to plan and manage technology projects effectively. They should also be able to impart the same skills to the users. Modern librarians should also understand the power and opportunities of Web 2.0 and help the end-users to embrace the technologies to satisfy their information needs (Singhal 2010). In this manner, the librarians connect the users with technology in the information context. They also mix and remix the e-resources and print materials to meet the needs of the library users.

Fadehan and Ali (2010) suggest that modern librarians should have competencies in imaging technology, optical character recognition, web mark-up languages, indexing and database technology, user interface design, open source information management software, creative commons, web server management, web publishing, networking, desktop publishing, multimedia design, automation of library processes, storage technologies, and ICT systems administration. Partridge, Lee and Munro (2010) suggest that the place of ICT skills for modern librarianship may have been hyped. They admit that the skills are essential but point out that technology is just a means to an end in librarianship and not the end. They suggest that the librarians should have essential ICT skills to enable them to understand what is available, what it can do for the libraries and how to use it. They seem to suggest that advanced ICT tasks in the library can be undertaken by ICT specialists either within the library or in the corporate ICT units.

## Management

WebJunction (2009) suggests that a progressive librarian should have competency to understand budgets and funds management. Thus, the librarian should understand basic financial and budgeting terminology and processes. The librarian should also seek and manage funding sources (resources mobilisation). The librarian should also provide strong leadership for all the library stakeholders and teams. Change management is also a critical component of management competencies that a librarian should have. The librarian should also have basic human resource management skills enabling him/her to recruit, empower, motivate and appraise the library workers (including consultants and volunteers) to deliver the library services effectively. Partridge and Hallam (2004) also suggest that librarians should be conversant with risk management, time management and project management.

Modern librarians should also have the competency to shoulder legal responsibility. They should understand legal issues and apply the relevant legal provisions relating to information storage, organisation and access; standards of professional conduct; legal deposit; intellectual property and copyright (Myburgh 2003; Partridge and Hallam 2004; Kennan, Willard and Wilson 2006; WebJunction 2009). The librarians should also be able to develop policies and procedures appropriate for the needs of the library. Modern librarians should also have skills to manage the information organisations and agencies as business entities. They should understand the “big picture” and align the library to the parent organisation’s vision and mission. They should be able to develop strategic plans, set priorities and allocate resources to achieve them. The modern librarians should also be able to calculate and demonstrate the return on investment for the library to the stakeholders. They should also be competent to supervise the day-to-day administration of the library.

## Research

Research competency is critical for research librarians. Partridge, Lee and Munro (2010) suggest that librarians ought to have research skills to enable them to embrace evidence-based practice. They specifically point out that good research skills would

enable librarians to make best decisions, develop best practices and establish benchmarks. They also argue that good research skills would enable librarians to evaluate the library’s resources and services and align them to the emerging needs of the users and other stakeholders. Partridge and Hallam (2004) and Singhal (2010) also explain that research skills enable the librarians to remain current regarding developments in their fields of interest and those of their stakeholders.

The research librarians ought to know the top research issues in their institutions, as well as the top researchers and publishers in those areas. They must be able to track breaking news and publications in those areas. The librarians should also be willing and able to engage the researchers in their domains (Walker 2009).

## Competency Index for Research Librarians in Kenya

From the foregoing discussions and rationale, the authors propose a competency index for research librarians in Kenya, as shown in the Appendix. The index is defined at three levels: competency areas, particular competencies under each area, and specific skills under each competency. There are five competency areas: technical, personal and interpersonal, ICTs, management and research. The rationale for including the areas in the index is explained above. Technical covers various aspects of the professional and technical role that a research librarian is expected to demonstrate that are not personal or interpersonal, ICT, management or research related per se. This first area covers professional foundation, i.e. the qualification-based, experiential skills and knowledge the research librarian should have; information resources management skills and competencies; information services design and delivery skills and competencies, and information management tools and techniques.

The personal and interpersonal area comprises personal attributes and attitude, communication, public relation and networking competencies which may be seen to reside in the personal and social dimension. ICTs require competency in ICT systems, hardware and software, the Internet, Web and desktop publishing and digitisation. The area of management covers general management, funds and

project management and legal affairs. The fifth area, research, details the general skills expected in a research librarian which culminate in being able to support researchers in reference and output management.

## Conclusion and Recommendations

The role of research libraries is to support research through the provision of appropriate information that empowers the researchers to conduct and report research effectively. Most of the research libraries in Kenya do not play this role effectively. Thus, improving competencies of the research librarians holds a great potential for improving the services of the research libraries in Kenya.

The competency index proposed in this paper has been developed from insights that emerged from the extensive literature review, from the various data collection and analysis tools used in the study and from the opinions of the research librarians surveyed. The index is furnished here for discussion and debate and implementation or testing through the avenues recommended above and below. Validation of the index might be in terms of being compared with benchmarks in the literature specified for other countries.

The authors are conscious of the inconclusive debate on whether librarians are born or made. Nonetheless, it is proposed that a research librarian, that is, well grounded and knowledgeable can be made through appropriate training and retraining. The goal can be achieved through a revamp of LIS curricula, as well as the provision of new skills through short courses, professional conferences and workshops. In-service training and periodic online training in the workplace can also be used to equip serving librarians with the emerging ICT skills (Muller 2007; Ocholla and Bothma 2007; Fadehan and Ali 2010).

The authors hope that the findings of the study would be helpful to people considering research librarianship as a career, current research librarians, educators developing or reviewing LIS curricula, professional associations developing membership requirements and employers appraising or recruiting research librarians, among others. Noteworthy in this regard is that the items in the skills column of the index in the Appendix provide details of the specific

skills that could be infused into the curricula of library schools, and into in-service and continuing education and training programmes, as capacity and other resources are developed.

Finally, as the index is drawn from carefully triangulated empirical research methods and validated against a systematic review of the literature, what remains is for the index to be tested by practical implementation in the academy and by practitioners in the workplace. The authors are based in practice and the academy with opportunities to implement what they recommend and also to seek to persuade others through conference paper presentations and so on to test the index. To this extent, it can be seen as a work in progress.

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**Appendix: Proposed Competency Index for Research Librarians in Kenya**

<b>Area</b>	<b>Competency</b>	<b>Skills</b>
Technical	<i>Professional foundation</i>	Research librarians should have: <ol style="list-style-type: none"> <li>1. A formal post-graduate professional library and information science training or its equivalent;</li> <li>2. An understanding of the theory of librarianship and information management;</li> <li>3. Knowledge of the history of libraries and information materials (books, compact discs, computers and many more);</li> <li>4. An understanding of the trends of the profession (history, present and future);</li> <li>5. The ability to distinguish and apply the common library typologies and models;</li> <li>6. Proficiency in library and information centre operations, policies and procedures;</li> <li>7. An understanding and appreciation of the indigenous knowledge of the research community;</li> <li>8. Knowledge of the socio-economic issues in the research community such as the fight against HIV/AIDS, conservation of the environment, and food security, among others.</li> </ol>
	<i>Information resources management</i>	A research librarian should have the training and skills to: <ol style="list-style-type: none"> <li>1. Participate in and manage the research information lifecycle;</li> <li>2. Evaluate, select, acquire, process, disseminate, store and dispose print and electronic research information resources;</li> <li>3. Organise the information resources in a way that attracts researchers and enhances ease of access and use;</li> <li>4. Maintain research information resources for later use (preservation of physical collection and hyperlinks);</li> <li>5. Understand and work with multimedia formats including social media;</li> <li>6. Apply appropriate collection development approaches and policies to build adequate research collection for scholarship and quick information;</li> <li>7. Provide ready access to the information resources at the point of need through appropriate lending, circulation, inter-library loan online and offline;</li> <li>8. Develop and deploy appropriate disaster preparedness and recovery systems.</li> </ol>
	<i>Information services design and delivery</i>	A research librarian should be: <ol style="list-style-type: none"> <li>1. Committed to providing information rather than information resources only;</li> <li>2. Able to design and deploy appropriate (user-centric) information services with the input of the research stakeholders;</li> <li>3. Diligent in empowering the researchers to self-serve through suitable information literacy programmes;</li> <li>4. Conversant with library service models and capable of selectively deploying them in a way that meets the information needs of the researchers;</li> <li>5. Proficient in information searching and retrieval using a wide array of online and offline tools;</li> <li>6. Able to constantly review the information services in tandem with research and librarianship trends.</li> </ol>

	<i>Information management tools and techniques</i>	<p>A research librarian should be proficient in:</p> <ol style="list-style-type: none"> <li>1. The design, management and use of online and offline research information databases;</li> <li>2. Indexing, classification, cataloguing and abstracting schemes and tools;</li> <li>3. Social media information management tools and concepts including tagging, folksonomies and social bookmarking.</li> </ol>
Personal and interpersonal	<i>Personal attributes and attitude</i>	<p>In the line of duty, a research librarian exhibits:</p> <ol style="list-style-type: none"> <li>1. Passion, enthusiasm, resilience, approachability, curiosity, open-mindedness, independence, diplomacy, sensitivity, flexibility, innovativeness, critical thinking and adaptability;</li> <li>2. Moral uprightness according to the virtue systems of the research community;</li> <li>3. Balanced lifestyle;</li> <li>4. Willingness to take calculated risks.</li> </ol>
	<i>Communication</i>	<p>A research librarian in Kenya should possess:</p> <ol style="list-style-type: none"> <li>1. Excellent oral and written communication;</li> <li>2. Proficiency in English, French, and Kiswahili;</li> <li>3. Ability to present ideas effectively;</li> <li>4. Skills and tools to facilitate and act on users' feedback;</li> <li>5. Ability to impart knowledge effectively.</li> </ol>
	<i>Public relations</i>	<p>A research librarian should:</p> <ol style="list-style-type: none"> <li>1. Create an environment of mutual respect and trust around the library;</li> <li>2. Negotiate confidently and persuasively;</li> <li>3. Participate in the community activities (community relations);</li> <li>4. Work effectively with suppliers and vendors;</li> <li>5. Respect divergent views;</li> <li>6. Genuinely value all users;</li> <li>7. Understand organizational dynamics (politics);</li> <li>8. Possess conflict resolution acumen;</li> <li>9. Market and promote library services and products.</li> </ol>
	<i>Networking</i>	<p>A research librarian should have the skills to:</p> <ol style="list-style-type: none"> <li>1. Create mutually beneficial partnerships and alliances;</li> <li>2. Participate effectively in the professional association (Kenya Library Association, Association for Health Information and Libraries in Africa (AHILA), among others);</li> <li>3. Create and sustain inter-departmental linkages and partnerships, especially with the IT department;</li> <li>4. Harness essential synergy in the department, organisation and beyond;</li> <li>5. Mobilise resources within the organisation, donors and community;</li> <li>6. Organise events and programmes which enhance the visibility and usability of the library (art galleries, reading nights, and many more);</li> <li>7. Lead and be part of a team.</li> </ol>



Information and Communication Technology (ICT)	<i>ICT system</i>	<p>A research librarian should have the capacity to:</p> <ol style="list-style-type: none"> <li>1. Develop ICT access and usage policies;</li> <li>2. Build the capacity of the researchers in the use of the relevant ICT tools and systems;</li> <li>3. Evaluate, select, acquire, configure and maintain basic ICT systems relevant to the library;</li> <li>4. Install, update and monitor basic ICT security systems including antivirus utilities;</li> <li>5. Administer Intranets, web servers and basic local area network (LAN) systems;</li> <li>6. Work with open source tools and systems.</li> </ol>
	<i>Hardware and software</i>	<p>A research librarian should be able to:</p> <ol style="list-style-type: none"> <li>1. Configure and troubleshoot basic ICT hardware such as computers, printers, scanners, digital cameras, external hard discs and photocopiers, among other equipment;</li> <li>2. Install and configure basic operating systems, applications and databases.</li> </ol>
	<i>Internet</i>	<p>A research librarian should have the capacity to:</p> <ol style="list-style-type: none"> <li>1. Install, configure and monitor Internet connection through wireless, cabled and USB equipment;</li> <li>2. Perform advanced information searches on the Internet using search engines and information gateways, among other tools.</li> </ol>
	<i>Web publishing</i>	<p>A research librarian is:</p> <ol style="list-style-type: none"> <li>1. Proficient with web content management systems;</li> <li>2. Conversant with HTML and other web content editors such as FrontPage and Dreamweaver, among others;</li> <li>3. Able to script and edit basic HTML and XML codes;</li> <li>4. Comfortable with common FTP packages to manage web site files;</li> <li>5. Conversant with web animation packages such as Flash;</li> <li>6. Able to post and update content on social media tools such as Twitter, flickr, blogs, MySpace, Facebook, Slideshare, Wikis and RSS;</li> <li>7. Able to promote an online publication effectively using search engines, online directories and other systems.</li> </ol>
	<i>Desktop publishing (DTP)</i>	<p>A research librarian should be able to:</p> <ol style="list-style-type: none"> <li>1. Design and publish basic posters, newsletters, briefing notes and other research publications using common DTP packages such as InDesign, Adobe PageMaker and Publisher, among others;</li> <li>2. Edit and integrate photos and other graphics into publications using Adobe Photoshop and Adobe ImageReady, among others.</li> </ol>
	<i>Digitisation</i>	<p>A research librarian should be conversant with:</p> <ol style="list-style-type: none"> <li>1. Scanners and other optical character recognition tools and systems;</li> <li>2. Digital cameras;</li> <li>3. Photocopiers;</li> <li>4. Electronic archiving tools and techniques;</li> <li>5. Audio and video capture, editing and publication.</li> </ol>

Management	<i>General management</i>	<p>A research librarian:</p> <ol style="list-style-type: none"> <li>1. Understands the day-to-day administration and supervisory management of a library or information centre;</li> <li>2. Sees the big picture and fits the library functions into the vision and mission of the parent organization;</li> <li>3. Plans, sets priorities and evaluates performance of the library;</li> <li>4. Participates actively in the organisational strategic planning;</li> <li>5. Calculates and demonstrates the return on investment of the research library;</li> <li>6. Manages the library ergonomics and physical facilities including furniture, shelves, decoration, cleaning, lighting and ventilation;</li> <li>7. Manages change;</li> <li>8. Recruits, trains, mentors, inspires and retains professional and administrative staff essential for the success of the library;</li> <li>9. Understands organisational behaviour.</li> </ol>
	<i>Funds management</i>	<p>A research librarian is able to:</p> <ol style="list-style-type: none"> <li>1. Perform basic book-keeping tasks;</li> <li>2. Develop and manage the library's budgets;</li> <li>3. Manage the library's grants.</li> </ol>
	<i>Project management</i>	<p>A research librarian has the capacity to:</p> <ol style="list-style-type: none"> <li>1. Write project proposals;</li> <li>2. Perform day-to-day management of library's special projects;</li> <li>3. Monitor and evaluate the library's special projects;</li> <li>4. Compile and disseminate project reports.</li> </ol>
	<i>Legal affairs</i>	<p>A research librarian:</p> <ol style="list-style-type: none"> <li>1. Understands and applies the copyright and other intellectual property laws;</li> <li>2. Understands, interprets and applies the Freedom of Information Policy and other provisions in the Bill of Rights of the Constitution of Kenya.</li> </ol>
Research	<i>General</i>	<p>A research librarian:</p> <ol style="list-style-type: none"> <li>1. Possesses qualitative and quantitative research skills;</li> <li>2. Participates in the entire research lifecycle;</li> <li>3. Understands the research trends, literature and researchers in the institution's area(s) of research interest;</li> <li>4. Conducts own research and publishes in peer-refereed journals;</li> <li>5. Supports researchers in reference and research output management.</li> </ol>