

Capacity Development for Library and Other Information Professionals in a Knowledge-driven Society

PROF. CEPHAS ODINI

*School of Information Sciences
Moi University,
P. O. Box 3900-30100, Eldoret, Kenya
E-mail: scain2005@yahoo.com*

DUNCAN AMOTH

*School of Information Sciences
Moi University
P. O. Box 3900-30100, Eldoret, Kenya
E-mail: duncanamoth@yahoo.com*

Abstract. The paper identifies knowledge as the key resource in the socio-economic development of a country since knowledge rather than capital or labour is increasingly becoming an important resource in the emerging information society. The paper discusses the concept of knowledge-based society as a society where knowledge workers are the dominant group in the workforce and where information technology allows knowledge to spread almost instantly making it accessible to everyone. Given the speed at which information travels, every organization in the knowledge society has to be globally competitive. The paper recognizes the changing nature of job activities as we enter the information society and the need to change the present education and training practices in order to equip the students with the requisite skills and competencies that will enable them to participate actively, creatively and comprehensively in the information economy. It stresses the need to exploit the opportunities offered by information and communication technologies in providing quality education which is vocational, more practical and work-based. It identifies the knowledge and skills that are lacking in the job market especially in the areas of Information Technology, Communication, Marketing, Financial Management and Total Quality Management. The authors recommends the strengthening of continuous education programmes in order to bridge the gaps and deficiencies that currently exist among the practicing information professionals in the emerging knowledge driven society.

Introduction

In the information age, the centre of gravity is being transferred from money to the human beings (Ershova 1998). The emerging knowledge production and knowledge economy is radically different from the society and economy of the 19th century in that knowledge has become a key resource. But unlike land, labour and capital factors which were so important to economic growth during the industrial revolution, the driving force behind the information revolution.

Knowledge like other source of traditional power has been viewed as a scarce resource, but knowledge-based systems treat it as a shared resource. Computer-based networks for example, provide information access to many rather than a few managers and as more people acquire information, power derived from access to information erodes. Managers and workers become more equal and organizations become more democratic. Parker (2005) quoting Peter Drucker notes that higher up the ladder one goes in the knowledge work, the more likely it is for men and women to be doing the same work. Thus knowledge becomes an equalizer in terms of work performed and may also be an equalizer in terms of pay and other work opportunities. Eliot (2002) has the following comments to make about human capital and prosperity: that recent economists have declared that human capital plays a pivotal role in societal development. Human capital, according to this economist, is a function of the skill-set and entrepreneurial abilities of a populace which is shaped by education and strengthened when a populace has exposure to working in multicultural environments. All these conditions are dependent on the quality of education made available from primary school up to advanced University.

Knowledge management involves cultivating a learning culture in which organizational members systematically gather knowledge and share it with others in the organization so as to achieve better performance (Parker 2005). This means that knowledge management is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives. Rowley (1998) notes that knowledge to be managed includes explicit, documented and tacit subjective knowledge. Management in this case entails all those processes associated with the identification, sharing and creation of knowledge.

In the information age the pressures of global competition and communication technologies increase so we find that institutions and the way they work with people are changing. Reengineering, flattening of hierarchies, networking, total quality management, part-time working and teleworking are all part of the process of readjustment to a new environment. Institutions tend to be more and more organized as a network and to be decentralized, distributive, collaborative and responsive. Libraries being one of the most important part of the information society due to their immense information resources have to keep up with mobile and flexible actors in the new information market (Ershova 1998). The new information society environment therefore requires new attitudes and new instruments.

The information profession today is facing fierce economic and technical problems than before. Information procedures and consumers are rapidly changing and becoming more diversified which in itself creates complex information demand and use patterns. Therefore, capacity development for the information profession should be directed at the ways and means that can enable them manage change and develop responsive attitude towards their profession. The delivery of good quality educational training demands the availability of state-of-the-art infrastructure, technology and fitness teachers (Thapisa 1999). Capacity development therefore occurs where appropriate investment has been made in the cultivation of values, skills and knowledge. Students should be provided with the requisite skills and competencies that will empower them to participate actively, creatively and comprehensively in the information economy. They will use first class information to create the knowledge surplus that is needed to transform the society. Thapisa (1999) notes that the goal should be to change from purely academic and theoretical orientations to work place and information technology based educational and training programmes and qualifications. This means that training programmes should be based on what can be done at the work place. Training out of necessity must provide the learner with the knowledge, skills, behaviours and attitudes necessary to carry out specific work related tasks. It should essentially be practical in orientation and content. This will make education and training of library and information science professionals more vocational by bringing education and work together and bridging the gap between training and work requirements. This will also enable information science professionals to be equipped with marketable competencies, knowledge and skills so they become active, creative and comprehensive participants in the information economies. This kind of training will also strengthen the relationship between education and employment by emphasizing the application of information technology and research skills in business and real work situations.

Thapisa (1999) summarizes the reasons why we should change present culture of learning to include: the need to exploit the opportunities offered by information technology which necessitates a drive for new competencies, skills and knowledge, a drive for quality education which is vocational, more practical and work based, a deeper understanding of customers needs for first class education and training, competitive consideration to respond to market forces which places information professional on collision course with professions like accounting, banking, computing, information catering and tourism, which seeks to take the information business away from them and the need to increase the availability of quality information for use in decision making, policy formulation and development planning.

The Changing Nature of Job Activities as we enter the Information Society

Portability of skills and competencies between different work environments is of great importance since people no longer stay in the same job or even the same career throughout their lives. This means that learning to learn is becoming a core competency (Nassembeni

and de Jagger 2000). The drive towards information society in Kenya offers challenges to education and training institutions such as polytechnics and universities because the information explosion places great demand in individual capacities not only to learn and re-learn but also to achieve higher levels of skills and qualification across a broader range of complex competencies.

Rosenberg (1994) and staff of School of Information Sciences, Moi University, in a survey of the Bachelor of Science (Information sciences) graduates in the context of market needs in Kenya identified the following courses from the core curriculum as having been of greater use to former students in the course of their work activities regardless of the nature of their job: computers courses, human communication, management courses, project and practical training attachment. The survey further revealed that employers were impressed with the versatility of information science graduates and considered knowledge outside the boundaries of the specialist option to be a strength, which could be exploited by their organizations.

Today the internet with its World Wide Web has expanded the flow of information and communication exponentially. Knowledge is changing at an ever-increasing rate. It is being produced and it becomes redundant at an ever-increasing rate. This has critical implication for the higher education sector whose primary tasks are the production and the reproduction of knowledge and preparing students to enter the world of work which is itself undergoing changes. To this end Odingi (1999) observes that the changing information environment requires a work force which is familiar with the emerging information and communication technologies (ICTs). They must arm themselves with the necessary skills in the use of various software packages, the Internet, CD-ROM and should possess the personality and competence to marry traditional and ICT services to deliver the library services.

Professional competencies among information professionals

Library and information professionals will be better off, if they pay serious attention towards developing and enhancing their core competencies. The unique competencies of information professionals include in-depth knowledge of print and electronic information resources in management of information services that meet the strategic information needs of the individual or group being served.

Gulati and Raina (2000) observe that library and information professionals are experiencing the consequences of three major paradigm shifts. These are:

- The transition from paper to electronic media as the dominant form of information dissemination, storage and retrieval, is the first shift. Convergence of different media, such as text, graphics and sound into multimedia resources, has direct impact on this transition.

- Increasing demand for accountability, with focus on quality customer services, performance measurement, bench marking and continuous improvement is the other shift. Shrinking financial resources for providing quality library and information support services have direct bearing on this shift.

- New forms of work organization such as end-user computing, teamwork, downsizing, re-engineering, outsourcing etc. is the result of the third shift.

In this changed dimension library and information professionals will have to assume the role of analyzers, synthesizers and interpreter of knowledge rather than be content with acquiring, organizing and providing information when asked for. Some of the tasks performed by today's information professionals include scanning, filtering, selecting, organizing packaging and information audits. According to Anjali and Raina (2000) these information professionals must be equipped with the following skills in order to navigate through the world of information meaningfully:

1. Collection development skills

Library and information professionals must be groomed on the following lines to devise ways and means to constantly update the collection.

- Develop proper knowledge of the organization, its mission, goals and objectives.
- Develop proper assessment of user's diverse needs.
- Have thorough knowledge of full range learning resources both documentary and non-documentary.
- Develop thorough knowledge about the library personnel: their job profiles strengths/weaknesses, area of specialization etc.
- Develop thorough understanding of the vendor profiles.
- Be thorough with web browsing i.e. relevant search engines, meta search engines, appropriate list servers, data bases, directories and other e-information resources.
- Devise ways and means to constantly update the collections.

2. Knowledge analyses skills

Library and information professionals require information skills for analyzing the quality of information. These skills comprise filtering out noise and focusing on special needs. Therefore library and information professionals should be able to:

- Understand that information differs in its levels of quality.
- Apply evaluative criteria to both print and electronic resources, such as authors, credentials, peer review, and reputation of the publishers, to assess the authority of the source.

- Assess the relevancy of a source to an information need by examining publication date, purpose and intended audience.
- Recognize omission in the coverage of a topic.
- Recognize and evaluate documentation for the information sources such as research methodology, bibliography or footnotes.
- Distinguish between primary, secondary as well as tertiary sources (print or non-print) in the requisite disciplines and evaluate their appropriateness to information need.

3. Knowledge synthesis skills

Library and information professionals should be able to organize, synthesize, integrate and apply the information in the following ways:

- Use appropriate documentation style to cite sources used.
- Summarize the information retrieved e.g. write abstract or construct an outline.
- Recognize and accept the ambiguity of multiple points of view.
- Organize the information in logical and useful manner.
- Synthesize the ideas and concepts from the information sources collected.
- Determine the extent to which the information can be applied to the information need.
- Integrate the new information into the existing body of knowledge.
- Create a logical argument based on information retrieved.

4. Knowledge repackaging skills

Library and information professionals should be able to develop specialized information products for use inside or outside the organization or by individual clients. To do this they should:

- Understand the organization of materials in libraries and use locally produced location guides.
- Understand how to use classification systems and rationale for their existence.
- Use local resources to locate information sources in the global information environment.
- Understand that libraries have developed methods for locating and sharing resources not owned locally and use the appropriate resource sharing system, such as inter-library loan or document delivery, to retrieve information.

- Understand that the internet may be a useful resource for finding, retrieving and transferring information electronically.

5. Knowledge retrieval skills

Library and information professionals need to assist users in the purposeful use of information technology to access the available knowledge. The tasks these professionals perform in this area include:

- Identification of new and emerging technologies to be assimilated and integrated into the organization to impact competitiveness technological skills know-how to use available technology creatively in order to achieve the greater benefit and pleasure from their work.
- Ability to train users to navigate the knowledge base competently themselves.
- Competency in search skills specifically for bibliographical databases, using various permutations and combinations of search terms with Boolean operators.
- Competency in information technology skills, which can be used for searching sources, accessing information, connecting to experts communicating ideas and results and packaging the knowledge for re-use.
- Ability to develop user focused service skills for example linking catalogue searching and other databases to document delivery service.

6. Needs assessment skills

Library and information professionals aim to provide the right information to the right user at the right time and at the right cost. To be able to do this they must:

- Understand the users i.e. information seeking behaviour and information needs of the client which is based on survey.
- Understand the library system i.e. resources, tools, techniques, service and people.

7. User education skills

Library and information professionals should be able to:

- Use wide variety of methods to help users in information skills through lectures, practical sessions, workbooks, printed guides, videos and demonstration.
- Adopt approaches to user education which can reach non-traditional students such as part-time and distance learners through information technology support via computer mediated communication.
- Use the web for teaching through linking to ready-made training packages or developing in-house products.

- Use computer-assisted learning (CAL) and hypertext for developing web library guides.

Curricula content suitable for the emerging society (the role of ICTs)

The use of ICTs in and for education in many countries ranks as one of the significant developments of the information society. Onyango (2000) notes that virtual colleges and campuses can be used to exploit alternative channels to exchange vital skills, training, scientific, technical and development information. A case in point is African Virtual University (AVU) headquartered in Nairobi whose expansion to more institutions of learning and research could ensure a well-educated and trained citizenry who are able to exploit the opportunities availed by ICTs for enhanced individual and national socio-economic development.

This means that there is going to be a shift from traditional methods of teaching and learning towards more student-centred modes and an emphasis on preparation for life-long learning. Due to increased complexity in managing information, learners need new and sophisticated technological skills with which to find their way through large amount of information sources available. The curriculum should address the issue of information literacy. This is the ability to recognize an information need, to find appropriate information from a variety of sources, to evaluate it and apply it constructively.

Thapisa (1999) however, cautions that we need to be very careful about the kind of degrees and other qualifications that we are willing to offer to our students through virtual learning as they can turn out to be regressive towards the old era of mass production.

Knowledge and skills lacking

Rosenberg (1994) and staff of the School of Information Sciences, Moi University, identified the knowledge and skills lacking for the information professionals in Kenya to include practical skills, desktop publishing, writing and editing skills, teaching skills, management and financial management skills. On the other hand Okemwa (2000) enumerates some specific areas of continuous education. They include self-management, teamwork skills, communication, marketing, virtual librarianship, performance appraisal, total quality and financial management.

Information profession is faced with new developments that need to be reflected in the current curricula. Johnson (1991) examines some trends in the education and training in library and information work that are worth considering. Management, computer skills, marketing, research methodologies and continuing professional education are identified as areas that have attained a new prominence. Other areas that are equally relevant to the profession are communication studies, economics of information, publishing and book trade and resource sharing (Ocholla 1999).

• The present library and information curricula should retain all the traditional of library and information science specifically indexing, cataloguing and because library and information science professionals need to be grounded in the principles and techniques of organizing information and knowledge so that information can be retrieved and routed at the right time.

• The internet, as an information system has multiple impact on several areas of library and information science as an educational programme. Therefore the curriculum for library and information science should specifically be updated to reflect the following:

- The impact of the internet on society and libraries.
- The impact of the Internet as an information sources channel of communication.
- Organization of information through internet services.
- Design of information services using the internet.
- Internet databases and interfacing.
- Web page design and authoring.
- Compilation of directories of subject documents on the net.

• Training institutions should identify courses outside the curriculum in computer technology and computer science which they consider relevant to the needs of the society and encourage students to take them.

• There should be continuous survey if international and national trends in library and information science requirements so that the necessary adjustments can be done in the training of library and information professionals accordingly.

• The Kenya Library Association should take the leadership role and coordinate the training of library and information professionals.

• Courses that form the core in some curricula are viewed as library oriented and should be reviewed with a view to restricting them to specialist courses.

• The information personnel need to be sufficiently exposed to the current practice in the information profession so that they can improve on their skills in the profession.

• There should be partnership between the government, training institutions and industry to develop training curricula that are required to identify and replace them with new ones, match academic qualifications with the needs of the society and make available qualifications which are meaningful and credible.

• While striving to realize an ideal goal of integrated training where academic qualification and experience are the norm, industrial attachment has to a vital component of training for all information professionals. This will provide trainees with an opportunity to acquire and sharpen their knowledge, skills and attitudes from a real work environment. It will also make lecturers aware of the needs of the industry as this is important because technology in industry is moving faster than in many universities and other training institutions; for effective training, the trainees and the lecturers need to familiarize themselves with technological and other requirements of the industry.

• New technology based tools for gathering knowledge must become central in the education of library and information sciences students; curricula should be designed so that students learn how to learn. This means that there has to be continuous adjustments and modifications in library and information sciences curricula.

Conclusion

The emerging information society has brought new challenges in the training of information professionals in that there are many changes that are taking place in the information environment. Students must learn not only what is known, but also how to keep their knowledge up to date. This means that there has to be continuous adjustments and modifications in library and information science curricula. The information society poses even more challenges to the information professionals in the field because knowledge is being produced throughout the world and active engagement with scholars in other countries is crucial for developing and maintaining lively intellectual community. The advances in communication and information technology have made significant contribution to the knowledge economy which means that emphasis on these fields is likely to increase in the near future.

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