Prospects and Problems of Educating Information Professionals in Knowledge Industry for Future Change

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ABSTRACT

This paper describes issues relating to information professionals (IP) and its education, it suggests, future change in IP, need for competences responsibilities of IP, and the pull and push Information System Development (ISD).The paper also presents the prospects and problems of educating IP for knowledge industry. The current states of education for information professionals in developing countries are such that:

- Interrelationship between the information and communication technologies and the subject matter of information studies are lagged.
- The development of and the role of technology in an asynchronous system of learning for information professionals were also discussed.

Keywords

Information professional, Knowledge Industry, Problems of information professionals, Pull and Push of information system.

Introduction

The growing awareness and value of knowledge in its various forms has been recognized in recent years in an emerging discourse known as knowledge industry (Gray and Todd 2009). It has seen knowledge as embedded in the experiences, skills, routines and the tangible artifacts produced in an organisation, as well as in the processes, wisdom and capabilities of people called professionals in the knowledge industry. The knowledge industry discourse, has also captured the attention of professionals working in the library and information sector, and in recent years a body of literature has emerged that explicitly addresses knowledge industry from the perspective primarily of librarians, with particular attention

given to its definition, dimensions, processes and benefits to the organisation (Backland, 2008).

Definitions of Knowledge industry have generally been quite diverse, but have common and emphasis on the distinctiveness from information management. Lenox (2007) defines it as a form of expertise management or industry which draws out tacit knowledge, making it accessible for specific purposes to improve the performance of organization; about how the organization "know-how" should be structured, organized, located and utilize. Also to provide the most effective action at that point in time[3], knowledge via a technology platform. The technology must involve capturing the internal knowledge generated by a firm its best thinking on products, customers, competitors, and process Information Technology (IT). Knowledge industry can also be viewed as an opportunity to maximize the return on investment in information and communication technology. This is to leverage the intellectual capital locked up in key staff; to learn and benefit from sharing information, processes, best practices, skills and competencies. Also to exploit the wealth of information in ideas, intuitions, commitments, innovations, practices and imaginations which integrate these as part of the information resources of an organization to achieve its goals[4].

Roles of Knowledge Industry

The functional roles played by knowledge industry have captured the attention of scholars, consultants, information providers, software developers and personnel at all levels of the corporate sector. It is a diffuse and complex debate, providing not only multiple perspectives of what constitutes knowledge industry. Among the roles is to differed underpinning assumptions about its nature, contextualization, role, and indeed, the meanings of its constituent terms "Knowledge" and "Industry", for the most part. There is little explication of theoretical rationale or conceptual exploration of what "Knowledge" actually is and indeed, how it relates to or differs from "Information" but let concentrate on an explication of the relationship, if any, between information industry and knowledge industry. Being managed and how it is perceived within an organisation, its processes, and how this management relates to the structure and culture of the organization. The functional roles of people within the organisation or industry, including information professionals (Corcoran, Mary, Dagar, Lynn, Strategies, & Anthea, 2009).

Who is an Information Professional?

An Information Professional (IP) strategically uses information in his / her job to advance the mission of the organization. The IP accomplishes this through the development, and management of information resources and services. The IP harnesses technology as a critical tool to accomplish goals. IPs include, but are not limited to librarians, knowledge managers, chief information officers, web developers, information, brokers, and consultants[2]. Maximum preparations for the information professionals offer a degree of vision and the broadest resource base for technological adaptability, growth, creativity, productivity, professional and high performance. These are attributes information professional will need to survive and thrive amid the rapid and foreseeable changes. Educating the IP therefore, is

a strategy of redefining, reexamining, rethinking, redesigning and restructuring many aspects of information science education. Information professional according to Blake (2009), requires a world class education in library and information science, but they must also keep pace in the profession through continuing education for a rapidly changing world. Information studies have survived for more than one hundred years and for most of the time it has flourished. The fact that it has flourished and that it has done so in time of rapid political, economical and technological changes. Different challenges are a head and the present growth of information resources will even bring a larger number of challenges in the fore-seeable future.

Educating The Information Professional For Future Change

Josey (1991) Opines that when looking at the future of IP education the primary question one may ask is how will Schools of information prepare themselves to meet those new challenges? In other to meet these challenges it is necessary that such schools should look into their external and internal environments. IP enroll in such schools need to be equipped with knowledge and skills of technology and its usefulness to society as a whole. One of the things that information science educator can do, is to provide the foundation so that new professionals can keep their knowledge and understanding of integrating technology and forms of information process. To serve their clientele and to make decisions or solve problems.

IP educators should be leading in the area of analyzing trends, formulating predictions, and acting as reporters to the field of changes (Lemke, 2007). These changes should be included in the curriculum of the school and should also suggest how to respond to the technological as well as the social changes. IP need to understand the principles of free access which is the major public policy issue of the decade and into the next future no matter what service format will be used. Information science students must be taught how to exploit the resources that will allow them to anticipate the future change and avoid becoming obsolete and irrelevant as information professionals to the individuals they will serve in an information based society.

In the last 20 years, the spectrum of technologies has widened and deepened. Information educators have gradually moved into adopting advanced professional technologies. Today's information world is on the verge of a massive societal and professional shift in the way information is accessed. These problems of change must be addressed by the information school in shifting IP from focusing on the storage and retrieval functions to that of a manager of information transfer process. Buckland (2008) said if storage problems diminished, problems of access became dominant. Therefore putting technology into the proper perspective of the world information is an important function of adequate education given to IP. In other to prepare the IP for future change in technology information schools should focus in area of automation and information technology to prepare their students, to handle the various types of technology to satisfy their users' needs. The schools should also through their curriculum provide data on different types of software, the existence and use

of various database and their management, and end-user tools in the computer and telecommunication industries.

Need for Competencies of IP

The competencies of Information System Development can be grouped into three categories:

1. Technical competencies covering the use of appropriate information technology to acquire organize and disseminate information, creating information products and the ability to identify and evaluate information sources.
2. Social competencies relating to provision of instruction and support for information users to meet their needs.
3. Organizational competencies in terms of specialized knowledge relevant to their employee, ability to develop, manage and information services and to undertake research into information management challenges and in general greater involvement in achieving the objectives of the organization.

This wide range of areas of competences is found in most information studies programmes. Of particular note however is the approach to the teaching of information technology which needs to be studied not only as an end in itself but also as a means to an end and an agent of change in the whole information process from creation through storage to retrieval. [2&5]

"Information technology not only provides more sophisticated tools to carry out traditional tasks but the technological tools themselves alter the task and change the very nature of the intellectual operations".

The diverse responsibilities of information Professionals are:

- Developing and maintaining a portfolio of cost-effective, client-valued information services that are aligned with the strategic directions of the organization and client groups.
- Building a dynamic collection of information resources based on a deep understanding of clients' information needs.
- Gathering evidence to support decisions about the development of new services and product.
- Maintaining current awareness of emerging technologies.
- Assessing and communicating the value of the information organization, including information services, products and policies to senior management, key stakeholders and client groups.

- Contributing effectively to senior management strategies and decisions regarding information applications, tools and technologies, and policies for the organization.

The Pull and Push of Information System Development

Within this highly dynamic environment, information professionals not only feel the pull of the situation described above but also the push of their own professional aspirations. These aspirations are traditionally explained as getting the right information to the right person at the right time and at the right price. In this context information professionals education, which gives them the knowledge and the skills they need. To meet these needs, the domain of information studies today has extended its scope to embrace not only the traditional sphere of published information associated with the library but also information generated by organizations as the outputs of their business activities. In the information services of organizations, as opposed to libraries, the emphasis shifts from collection development and availability of a resource base (usually purchased externally), to the active communication of a resource, both internally generated as well as externally acquired, to meet users need and aid decision-making. Nowadays, via web technology in particular, these types of information (i.e. internal reports, online databases) often merge and are communicated seamlessly for the PC user. New information specialists such as records management, knowledge management, documentation control and web management are in some contexts being consolidated and in others being established to develop and control these new and highly dynamic environments. (Josey, 1991 and Dillon, 1995).

Information professionals in training need not only to learn about and be able to use the new technologies as elements of the working world today. They also need to understand them and the potential for their use so as to exploit them in fulfilling their professional role, because these new technologies are the technologies that are specific to information and communication. Additionally, considering information professionals as learners, these new technologies bring further opportunities to all students by providing a means of supporting learning at a distance, where the separation between the teacher and the learner is as much temporal as physical. There remains however, the unchanging goal of university education, which is the development of understanding that goes far beyond the transmission of information and the communication of knowledge. This requires the students to engage actively with operational aspects of the subject matter and to articulate its theoretical aspects.[5 and 7]

So there are three facets of the information professional's life today that are changing in relation to new technologies.

- The way in which business operates in general and the prominence that information is taking for business.
- The tools of the trade that information professionals use in their own work.
- The means by which they are able to update their skills both as part of initial training and also re-training.

- The aims of this information System Development will therefore be to present:
- The current state of education for information professionals.
- Interrelationship between the information and communication technologies and the subject matter of information studies.
- The development of and the role of technology in an asynchronous system of learning for information professionals.

IP should be prepared with understanding of organization of knowledge, knowledge of information sources in print and electronic formats networks, teaching abilities (bibliographic instruction) abilities of negotiating and selecting of variety of electronic products (Dillon, 1995).

Prospects of Educating Information Professionals for the Knowledge Industry

The main aim of the education and training provided to IP was to provide forum for the research and practices, addressing current issues associated with Information Systems Development (ISO). Everyday new technologies, applications and methods raised the standard for the quality of systems expected by organizations as well as end users. Everybody is becoming dependent on systems reliability, scalability, and performance. Hence, it is crucial to exchange ideas, experiences and also stimulate exploration of new solutions. This situation provides a forum for both technical and organizational issues.

In the challenges of rapidly advancing technology. What should developing countries do to overcome these challenges? Which are the central technologies that bring advancement under current socio-economic situation? Is regional information infrastructure a possibility?

Development can be seen as an increase of knowledge and skills and creative potentials that can be applied to improve the quality of life. Research shows that low levels of knowledge and inadequate innovative skills at lower, middle and higher levels have contributed to the continuous failures in all spheres in developing countries[4].

Information and knowledge are interrelated. Well-informed, knowledgeable and innovative IP are causes for human centered development. Information technology facilitates the flow of knowledge in modern society. The failure to use information technology is becoming negative as the refusal to attend school. It is a choice between being left out of benefiting from enormous benefits of information technology[3].

A cluster of technologies education is responsible for shaping the way modern information society is emerging. The emerging of communications and computing technology with printing and public information using intelligent tools has made the availability of information easier. The advancement did not occur in technology only. A wide variety of information is becoming available through networks for everyone, at anytime, and at any place effectiveness of these technologies depends on adequate IP education. The prospects of educating IP are tremendous. Nowadays it is becoming increasingly difficult to run an institution without using computers. Desktop machines are replacing traditional office type

writers. Information technology that can be used, maintained and developed by the indigenous professionals is crucial. Education and training is a key to building indigenous capacity that helps reduce dependence on developed world, to cut under-utilization of existing equipment and to help to apply technology for solving local complex problems.

No other region is more in publishing crisis than developing Countries[1] .The book famine can be compared to the food shortage in the region. Publishing as well as getting what is published is a nightmare. Libraries in schools and public libraries have continued to decline in holdings of up-to-date books, reports and journals. The revolution in desktop publishing is the most promising rescue to the weak knowledge industry in developing countries. The potential of IP education in development activities that improve the quality of life, efficiency of social and economic organization and it cohesion is evident. Developing countries like Nigeria need information and communication policy adjustment to share the promises of the rapid changes in information technology. Information policy adjustment involves appreciation of the significance of information technology in lifelong learning, trade, employment, accountability and better management of resources and environment. IP education properly designed can be deployed even in regions that lack adequate water, food and power. IT represents the biggest chances for major leapfrog in development, growth and poverty alleviation. If developing countries can fulfill necessary conditions for networking, agility, learning and reliability[1].

Modern use of information technology requires aggressive activities in IP education Information technology and IP education have dual impact on each other. Information technology has a greater impact on IP education in the development of new concepts, improving resources sharing and advancing research. Information technology education is the main solution for building indigenous capacity in developing countries. Governments should play active roles in diffusing the above technologies to colleges, universities and schools. The use of Internet is a boost to graduate research in developing countries. Connectivity helps to open the window to global knowledge for developing countries like Nigeria. In addition to deploying information technology in education, governments should promote the use of information technology in the public communication media, including printed and audiovisual media, telecommunication and postal services. Information systems in business, finance, health, legal, science and technology should also be encouraged to use appropriate information technology[5].

Governments should develop better policies for equitable access to Information Technology. The need to provide equitable access should not underscore connection of information delivery agencies, business and private institutions to high bandwidth networks. Those "ready to ride" should be allowed to surf on global information networks. Appropriate information and communication policies are the basis for building regional information infrastructure for socio-economic development.

Problems of Educating Information Professionals for Knowledge Industry

1. High Cost of Training: Most of the time, educating information professionals for knowledge industry fails because of the high cost of training professionals that will administer the available technology for the advancement of the industry. People are poor particularly in developing nations like Nigeria where poverty level is high. It is estimated that the average Nigerian lives below $1 per day.7
2. High Cost of Sophisticated Equipment: The necessary information equipment and gargets are relatively beyond the reach of the average. Where these tools are not available it becomes difficult for information professional in knowledge industry to thrive.
3. Irregular Power Supply: Irregular supply of power is a major setback for educating information professionals for knowledge industry. Most of the equipment for information transmission and communication are dependent on electricity supply. In situation where electricity is not available or epileptics, there is bound to be a problem.
4. Poor Attitude: Sometimes the attitude of the people towards information could constitute a barrier in educating information professionals for the industry. The right attitude no doubt would influence and encourage educating information professionals in the knowledge industry. Other constraints facing IP education is lack of IT components for practice, lack of self-motivation, financial difficulty among others.
5. Government Attitude: The government is not left out, if the knowledge industry is to gain massively from educating information professionals. It is essential that there is at the national level a collective wish - the will to plan and manage the economy and the coordination of political and economic activities so as to rationalize and optimize the use of information professionals with the scarce resources available.

Conclusion

The information science profession is service-oriented and requires continually updated knowledge and skills for effective performance. The efficiency of any information center in meeting the information needs of its clientele, to a large extent, depends on the caliber of its staff. According to Esharenana (2003) information knowledge and skills are not acquired once and for all. They have to be continually updated. This is particularly the case as Information Professionals (IP), which are prevalent means of information storage, retrieval and dissemination at present. Within this dynamic environment, IP feel the push of their own professional aspirations. These aspirations are traditionally explained as getting the right information to the right person at the right time and at the right price. In this context IP need to be able to respond to the new challenges and therefore require professional education, which gives them the knowledge and the skills they need. To meet these needs,

the domain of information studies has extended its scope to embrace information generated by organizations, as the outputs of their business activities. Thus information professionals in training need not only to learn about and be able to use the new technologies as elements of the working world today. They also need to understand them and the potential for their use so as to exploit them in fulfilling their professional role, because these new technologies are the technologies that are specific to information and communication. Additionally, considering information professionals as learners, these new technologies bring further opportunities to all students' by providing a means of supporting learning at a distance where the separation between the teacher and the learner is as much temporal as physical. There remains however the unchanging goal of university education, which is the development of understanding that, goes far beyond the transmission of information and the communication of knowledge. This requires the student to engage actively with operational aspects of the subject matter and to articulate its theoretical aspects.

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