INFORMATION AND SOCIETY

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Abstract: *The library is closely related to the development of the human civilization. The term 'information society' refers to a society in which creation, dissemination and use of information is a significant economic, political and cultural activity. Three factors that act as indicators towards information society, which are information, connectivity and social capital. The library plays an important role to cultivate reading culture and lifelong learning environment for the community. The distribution of information has begun from the early of establishment of writing system and now it involved to the new forms of communication, such as computers. However, because of a gap of information accessibility, there exist information rich and information poor among the societies. The person who is information literate will have a better social life than those who are not information literate, in terms of income and status in society.*

Keywords: *Information society, library, information literacy, information rich, information poor*

INTRODUCTION

Upon the spread of Islam, the Quran emphasizes the significance of knowledge and encourage Muslims to learn and to acquire knowledge from all aspects. Islam was not opposed to learning from the earlier civilizations and incorporating their science, learning, and culture into its own world view, which are including the writings of Socrates, Plato, and Aristotle, as long as they did not oppose the principles of Islam (Irma Indayu, 2005). As a result, the House of Wisdom (Bait-ul Hikmah) was established to preserve the knowledge by Muslim scholars (Abu Hassan, 2011). It was the first public library and was the largest one globally for successive five centuries. According to Abu Hassan (2011), the House of Wisdom has been developed perfectly with systematically administrative, vision and mission. It was not restricted to the sciences of Shariah only; however, it included the daily life sciences, like Medicine, Engineering, Astronomy, Physics and translation from Greek, Persian, Indian and other languages to Arabic or from Arabic to other prevailing languages at that time.

Furthermore, the libraries contribute significantly to the advancement of human civilization. Since people began to record ideas and information for later recall, collections of those records which are comprising of several items or millions, have been perceived as essential in preserving the memory of society (Davis, 2005). In addition, the library closely correlated with the structure, identity, value, cultures and system for the certain society. The power of civilization is not only measured by the strength of army, but also how the society able to appreciate the knowledge. The previous empires was build because the rulers of that period of time recognise and realise the importance of the library in relation to make the society are knowledgeable (Abu Hassan, 2011).

INFORMATION SOCIETY

Generally, the term 'information society' refers to a society in which creation, dissemination and use of information has become the significant economic, political and cultural activity. Castells (2000) defined information society as the term informational indicates the attributes of a specific form of social organization in which information generation, processing, and transmission are transformed into the fundamental sources of productivity and power. It was due to the new technological conditions that arise during this historic period. An Information Society may be contrasted with societies in which the economic foundation is primarily Industrial or Agrarian.

Comparison of information society with agricultural and industrial society

By using a basic concept made by Japanese theorist Yoneji Masuda, Jones (1995) pointed out the comparison for those three types of society in terms of the production, social structure and values. The comparison is showed in the Table 1.

Table 1: A Comparison of Information Society with Agricultural and Industrial Society

	Agricultural society	Industrial society	Information society
Production power structure			
Production power form	• Land production power (farmland) • Material productivity	• Production power of motive power (steam engine) • Material productivity	• Information production power (computer) • Knowledge productivity

Character of production power	• Effective reproduction of natural phenomenon • Increase of plant reproduction	• Effective change of natural phenomenon and amplification Substitution and amplification for physical labour	• Systemisation of various natural and social functions • Substitution of brain labour
Product form	• Increase of agricultural product and handiwork • Agriculture and handicraft	• Industrial goods, transportation and energy • Manufacturing and service industry	• Information, function and system • Information industry, knowledge industry and systems industry
Social structure			
Production and human relations	• Tying humans to land • Compulsory labour	• Restricting man to production place • Hired labour	• Restricting man to social system • Contract labour
Special character of social form	• Close village society • Permanent and traditional society • Paternalistic status society	• Concentrated urbanised society • Dynamic and free competitive society • Social welfare type controlled society	• Dispersed network society • Creative and optimum society • Social development type multifunctional society
Value outlook			
Value standard	• Natural law • Maintenance of life	• Materialistic satisfaction • Satisfaction of sensual and emotional desires	• Knowledge creation • Pursuit of multiple social desires
Thought standard	• God-centered thought (religion) • Ecclesiastical principle	• Human-centered thought (natural science) • Free democracy	• Mankind-centered though (extreme science) • Functional democracy
Ethical standard	• Law of God	• Basic human rights; ownership rights	• Sense of mission and self-control

Source: Jones (1995).

Common features of the information society

Batt (2003) states the three factors that act as indicators towards information society, which are information, connectivity and social capital. Information refers to the source of knowledge, such as books, reports, the web, mediation and advice services. Apart from that, online encyclopedias, virtual museums and digital content also enrich human knowledge.

The second factor is connectivity. Batt (2003) mentions that the effects of the web, e-mail and mobile phones are scale and speed rather than of difference from the past. According to the research done by Wong (2011) who carried out a case study in Hong Kong Baptist University Library, the usage of HKBUtube (the official streaming videos of the library university) website and mobile version via Apple mobile operating system (iOS) are about the same. The author emphasise that the academic libraries should be fully aware of the current trend and provide appropriate services to their users. Hence, it showed that the mobile application also become one of primary resources.

Finally, the third factor or characteristic is social capital. The social capital here refers to the capability of people to support, develop and take advantage of networking and networked information. The social capital to underpin the information society is therefore not just information professionals with the right skills, it is a population who understands that information will help at return, that is easy to acquire, can widen the view of the community and the wider world and help to understand each other (Batt, 2003).

Apart from that, Schement and Curtis (1997) also mention about the characteristics and determining components of information society.

Table 2: The Characteristics and Determining Components of Information Society

Category	"Content" behind the category
Information commodities	Market and commercial processes related to their production.
Information industry	Industries built on the large-scale manufacturing, production, distribution and consumption of information in an increasingly global competitive arena, where information export is the measure of economic "fitness".
Information work	Traditional employment indicators are gradually shifting towards more employers and professions dealing with information due to the nature of the work involved
Interconnectedness	Increasing social complexity and labour distribution are realised through increasingly indispensable technological support systems, while technology facilitates the emergence of secondary networks in addition to the traditional ones
Parallel use of several media	The cohesive power of communities of increasing size, independent of the debates surrounding the dysfunctions of the new media
Interaction of technological and social progress)	Strengthening of new community formulae versus traditional (economic, scientific and political) elites.

Source: Schement and Curtis (1997)

LIBRARY AND INFORMATION SOCIETY

The development of a library becomes the strongest education system and it has influences in shaping and nurturing reading culture among the society (Abu Hassan, 2011). In ancient times, the library functions as a hall of meeting for scholars to learn and discuss the knowledge. A study in Oslo, Norway, explored how and to what extent the public library is used for meetings that vary in degree of communication, instrumentality, purpose, sphere of life, or role (student, employee, parent, relative, or friend) in which they are held. The research proved that community involvement is more important than township and demographic variables in explaining variations in use of the library as a meeting place. In addition, the correlations between low income and low education and high use of the library as a meeting place were found, indicating that the library as a meeting place plays a substantial role in equalizing the possibilities of being an active citizen across social and economic differences (Aabø, Audunson & Vårheim, 2010).

On the other hand, one of the important issues arises, regarding the relevance of library in this era while competing the information from Internet and bookstores. A research in the United States found that the measure of crowding out is largely from diminished library use by middle-income households. Because this group traditionally uses the library most frequently, the impact of these bookstores could potentially alter the funding and services libraries traditionally offer, changing their redistributional capabilities. With regard to the impact of large bookstores on household library use, large bookstores do not appear to have an effect on overall library use among the general population. Possible reasons for this include bookstores concentrating where literacy and the probability of profit are high, bookstore promotion of literacy that also induces people to visit the library more, or due to complementarities between library and bookstore use (Hemmeter, 2006).

As general, the library should understand the characteristics and information needs of its users. To understanding their target users, the library may conduct survey to know the information seeking behaviour of the users. Furthermore, the library also can organise the information literacy class so that the users can access and retrieve the information efficiently and effectively.

Information needs

Basically, Information Needs refer to a person or group's desire to locate and acquire information to satisfy a conscious or unconscious need. There are many definitions offered by scholars regarding the term 'Information Need'. Case (2007) defined the Information Need as a hypothesized state brought about when an individual realizes that they are not comfortable with their current state of knowledge.

The information needs of an individual may be different from the others. For instances, a law student need information about legal and legislation while the medical students need latest medical cases. Case (2007) elaborates the factors that lead to information needs. A person seeks information to answer his or her curiosity regarding something that he or she interests in. In addition, it also reduces the uncertainty about certain matters for an individual. Kulthau (1993) claims that the uncertainty happened because of a lack of understanding or a gap in meaning. It initiates the process of information seeking.

Information seeking

Information seeking is a topic that has written by scholars in the context of various discipline studies. Information seeking behaviour that occurs when individual sense a problematic situation or information gap, in which his or her internal knowledge and beliefs, and model of the environment, fail to suggest a path towards satisfaction of his or her goals (Case, 2007). Meanwhile, Wilson (1999) said that information seeking behaviour are those activities a person may engage n when identifying his or her own needs for information, searching for such information in several ways, and using or distributing that information.

There are many models have been developed regarding information seeking behaviour, such as Wilson (1999), Kulthau (1993), Ellis (1989) and Leckie (1996). Leckie, Pettigrew and Sylvain (1996) studied the information seeking behaviour among three types of professions, which are engineers, health care professionals and lawyers. The research resulted that those professionals need different approach to fulfil their needs of information.

Information literacy

The idea of information literacy, emerging with the advent of information technologies in the early 1970s, has grown and strengthened to become recognized as the critical literacy for the twenty-first century. Information literacy is also described as the overarching literacy essential for twenty-first century living.

Information literacy was first coined by Paul G. Zurowski (1974). He stated that people who are trained in the application of information resources to their work can be called information literates. They have learned techniques and skills for utilizing the wide range of information tools as well as primary sources in molding information-solutions to their problems.

In addition, American Library Association (1989) described the information literacy as know how to learn because the information literate person know how knowledge is organised, how to find information, and how to use information in such a way that others can learn from them. The information-literate people are prepared for lifelong learning, because they can always find the information for any task or decision at hand.

Increasing attention to information literacy in recent years is partly the result of information overload, especially related to the growth of digital information. Today, information literacy is inextricably associated with information practices and critical thinking in the information and communication technology environment.

As the information literacy should be started from the schools, American Association of School Librarians (2007) has created a standard for 21st century learners, which are:

1. Inquire, think critically, and gain knowledge.

2. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.

3. Share knowledge and participate ethically and productively as members of our democratic society.

4. Pursue personal and aesthetic growth.

The previous research proved that information literacy gave advantages to the students. According to Szarina Abdullah (2010), those who are have written assignment in essay format, students who attended library orientation for new students or joined information literacy class are more competence than those who are not. Rehman and Al-Awadhi (2011) also supported this view and they claimed that the students who had taken the information literacy course performed significantly better in terms of information capabilities, computing capabilities and research capabilities.

LIBRARY AS CATALYST FOR LIFE LONG LEARNING

According to Australian and New Zealand Information Literacy Framework (2004), lifelong learning is all formal, nonformal and informal learning whether intentional or unanticipated which occurs at any time across the lifespan. However, intentional lifelong learning, either formally or self managed, is regarded as necessary due to rapid technological, social, cultural and economic change. Information literacy is a prerequisite and essential enabler for lifelong learning. Information literacy can be seen as a subset of independent learning that in turn is a subset of lifelong learning.

Australian and New Zealand Information Literacy Framework (2004) also listed the principles frame six core standards which underpin information literacy acquisition, understanding and application by an individual regardless the age or economic status. These standards identify that the information literate people, which are:

- ability to recognises the need for information and determines the nature and extent of the information needed
- able to find needed information effectively and efficiently
- critically evaluates information and the information seeking process
- manages information collected or generated
- applies prior and new information to construct new concepts or create new understandings
- uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information

The lifelong learning has also created a need for a re-conceptualization of the roles and responsibilities of library and information professionals in a new learning environment. Although there has always been a need to find, evaluate, and effectively use information, the abilities needed to do so have just grown larger, more complex, and more important in the information and communication technology (ICT) environment. There is also a shift towards broader contexts, to connect information literacy with an active, effective and responsible citizenship supporting personal empowerment and an enriched life through lifelong learning.

INFORMATION ACCESS AND DISTRIBUTION

History

The collection of written knowledge in some sort of repository is a practice that has been started since the existence of ancient civilization. About 30,000 clay tablets from ancient Mesopotamia, which are from 5,000 years ago, have been found by the Archaeologists. They also have discovered papyrus scrolls from 1300-1200 B.C in the ancient Egyptian cities of Amarna and Thebes. At Nineveh, thousands of clay tablets are found in the palace of King Sennacherib, Assyrian ruler from 704-681 B.C. The name for the repository eventually became the library (Khait, 2001).

After some centuries, in Europe, the printing industry has been evolved as a new form of human communication in the 15th century. According to Feather (2008), the knowledge became cumulative, as each generation added to the store, and recorded its findings and its opinions in a easily retrievable way, which at last began to recognise the full potential of the alphabet as a means of storing linguistic information.

During the half of the 19th century, a new stage in the evolution of the storage and communication of informaiton has occured. Initially, the invention of radio and television was for vital instruments of information and opinion-forming before and during World War II. At the same time, the researchers designed and developed computer for military purpose before it can be used by the public society like nowadays (Feather, 2008).

Hence, the development of new information technologies and information delivery systems has fundamentally changed the relationship between the supplier and consumer of

information. However, there are several issues and consideration about access and distribution of the information.

Issues

Feather (2008) explained some issues regarding access and distribution of information. Even if there is no charge for the information itself, which is the case for the vast majority of websites, telecommunications charges are incurred and there are capital costs for hardware and software. For example, recent British legislation, dating drom 1991, allows the public libraries to charge for certain services, including loan services of recorded music and videos.

In addition, Feather (2008) elaborated that information is no longer even perceived to be 'free' in an economic sense, however 'free' access may be in the sense that there is no legal or technical obstacle to obtaining it. As information technology takes more information direct to academics' and students' desks through the computers that sit in them, and indeed through the mobile devices that they carry, the library becomes just another part of the network through which they meet their information needs.

Information for disabled person

Even though the Internet has evolved rapidly two decades ago, there are some people who are in disadvantage positions when using computer. As every person has a right to access information, an information system should consider some aspects to help users who have special needs. A website which is entitled 'Universal usability in Practice' has been developed since 2001. It was a class project for Human Factors in Computer and Information Systems course from University of Maryland. It contains recommendations and information resources for web developers who wish to accommodate users with certain circumstances such as slow modems, small screens, text-only, and wireless devices (University of Maryland, 2001).

It also deals with content design issues, for example translation to other languages, low educated and low motivated users, children and elderly people. This website also covered design guidance for blind, deaf, cognitively impaired, and physically disabled users. One of the articles discussed about visual disabilities. Karagol-Ayan (2001) pointed out that since most of web pages are highly visual, the users with visual disabilities has serious problems

when using the websites. Hence, web designers must consider colour blind users when they are designing web pages.

In another case, Yeh (2011) stated in his article that he have dyslexia, which is a reading disability that happens when the brain does not properly recognize and process certain symbols. He has decided that he could draw cartoons and comics for a living. In 1985, he learned about the massive illiteracy crisis in the United States. There were an estimated 27 million adults who could not read or write at a basic level at that time. Yeh (2011) said that he had always believed that comics were a great way to encourage people to get into reading, especially for those people who has learning disability like him.

He asked other cartoonist if they would consider going with him on 30-some state road trip in a van packed with posters and paper for drawing free cartoons. By 1990, they painted colourful cartoon murals all over the country in schools, community centers, libraries, on trucks, walls, vans, billboards, and anywhere to spread the message about local literacy programs and the importance of reading. As their 25th year on the road ends in 2010, they have painted more than 1,800 murals in 49 states in US and 14 other countries (Yeh, 2011). It can be concluded that, the information is not from books or texts only, but it also can be conveyed by picture drawings, as long as the meaning of information is delivered to the right users.

Liang, Xue and Chase (2011) found that the Internet is particularly valuable to neurologically disabled people whose mobility is limited. The information that they acquire from the online searching on the Internet influences their medical decisions. From the results, as people's disability level increases, they are more anxious to know more about their conditions and less demanding about the usefulness of the information they obtain. In addition, the patients who newly diagnosed with the disease tend to be more anxious to retrieve any disease-related information. Meanwhile, the patients in the critical stage tend to be more concerned in specific information (Liang, Xue & Chase, 2011)

Tuffrey-Wijne et. al. (2006) claimed that there is a lack of available knowledge about people with intellectual disabilities' understanding and experience of cancer, and about their need for cancer information. Usually, this group depend on others, which are family and paid caregivers to enable them to access information. However, the researcher found that both

family members and paid caregivers do not provide adequate cancer information for them. In fact, the word 'cancer' is likely to be forbidden from discussion because of the fear of the disease. It avoids people with impaired intelligence from making informed decisions and exercise choice around their treatment and care.

Futhermore, Tuffrey-Wijne et. al. (2006) addressed that cancer professionals seemed to underestimate the ability of the people with intellectual disabilities to understand and learn like normal people. Therefore, Tuffrey-Wijne et. al. (2006) reported that this group were able to understand the information if it was given in an accessible format, for example, the picture book. The researchers also suggested that the patients need to have chances to talk through their experiences, and responded well to simply being given the space and permission to do so.

INFORMATION RICH AND POOR

Definition

Feather (2008) defined information rich as a country, an organization or an individual with the information which is needed to carry out the task in hand. On the other hand, information poor defined in opposite and negative terms to describe those who lack that information. (Feather, 2008). Beside from information poor, there is another term that used to describe those who are disadvantaged groups, which is information poverty. Information poverty is a state thought to exist in a person, or among members of a demographic group, when they are not only devoid of useful information but tend to lack the necessary skills to information themselves. (Case, 2007).

In this digital era, most of information are widely available on the Internet, thus, an individual must have a basic computer skills to retrieve the information from various digital formats. Huang and Russell (2006) defined digital divide as the perceived gap between those who have access to the latest information technologies and those who do not. Digital divide does exist and the gaps, which cut across various ethnic, racial, socioeconomic, and geographical groups.

Successful Asian society

According to Feather (2008), the most successful Asian economies are Japan, Singapore and Korea. Those countries are indeed nations on which economies and scientific information are widely and easily available. The information technology has been developed and exploited to a high level of sophistication.

Japan has built an enormous manufacturing sector of which information technology is an vital part, both as a tool and as product. Besides that, Japanese industry makes widespread use of robotics and computer-controlled manufacturing systems, but the production of the production of information technology hardware is itself a main element in the Japanese industrial economy.

Meanwhile, Singapore use the communication capacity of information technology to turn itself, despite its small size and comparative geographical isolation from other big centers of commerce and industry, into a financial center of international importance as well as major port. In addition, Feather (2008) said that Singapore managed to provide a high standard of living for virtually all of its citizen even though it has social and political diversity.

Information wealth in Malaysia

To achieve information society, Malaysia must have information-literate citizens. Therefore, the appropriate levels of information literacy must be achieved throughout the society. The fourth Malaysian Prime Minister Dr. Mahathir Mohamed has announced Vision 2020 as a guideline for Malaysia to achieve the status of developed and modern nation in 2020. In order to make the vision become possible, the government has take initiatives to build a knowledge-based economy equipped to perform internationally (Green, 2007).

For instances, the government built Multimedia Super Corridor (MSC) as a center for technological industry that are related to information, communication and technologies (ICT) infrastructure. Other than that, a number of the primary and secondary schools is converted into Smart Schools plans.

The Smart Schools projects sets out to embrace technologies effectively in transforming and enhancing teaching practices, school or organisations and student performance, accelerate the

development of student learning, creativity and critical thinking, and also to improve IT literacy among the students (Khoo et al., 2000).

CONCLUSION

Abraham Maslow developed the Hierarchy of Needs model in 1940-50s in USA, in which basic, low-level needs such as physiological requirements and safety must be satisfied before higher-level needs such as self-fulfilment are pursued. According to the Maslow hierarchy, if a person feels threatened, needs further up the pyramid will not receive attention until that need has been resolved. When a need is mostly satisfied it no longer motivates and the next higher need takes its place (Maslow, 1943). Maslow's hierarchy of needs is shown in the following diagram.

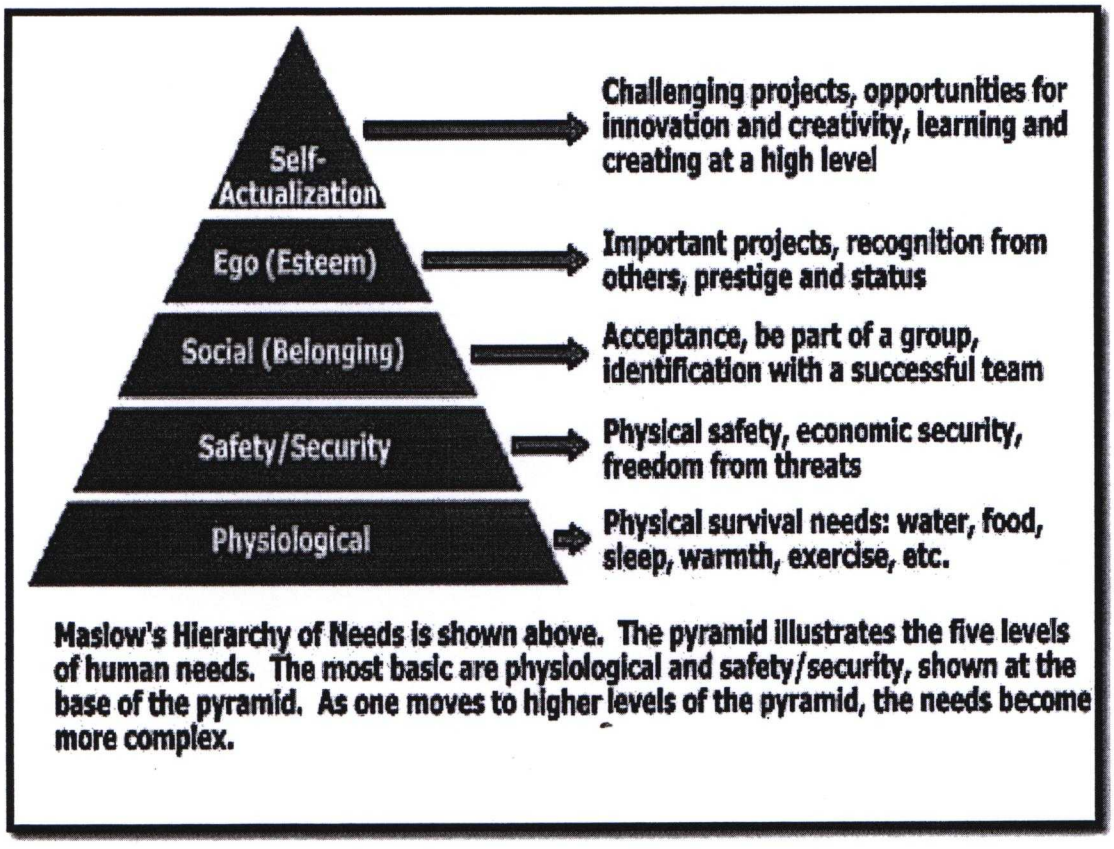

Figure 1: Maslow Hierarchy of Needs

Nowadays, the person who is information literate will have a better social life than those who are not information literate, in terms of income and status in society. In addition, the information literate person will have better job opportunities and indirectly it will help to improve his or her life. For instance, the person who hold doctorate certificate will be respected by the other people because of his or her expertise in the certain area of field. In fact, the knowledge that person acquired, will contribute to increase and augment the economy and social life of the community.

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