

From Knowledge Society towards Religious Wisdom Community: Understanding ICT in Islamic Perspective

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Abstract—This proposal is conceptual in nature. The proposal will try to identify the current trends of Information and Communication Technologies (ICT)'s role in advancing knowledge building into wisdom community. More precisely, the aim of the proposal is to analyse the ICT's role in building wisdom community in Islamic perspective and to see the current application using internet technology. Furthermore, it aims the possibility of adopting newest ICT in developing virtual Islamic wisdom community which so-called e-Islamic World, as well as assessing its positive and negative implications for the Muslims and the society at large.

Keywords—ICT; wisdom community; e-Islamic world

I. INTRODUCTION

Information and Communication Technology (ICT) has given great influences into human's life. Economically, there is a shifting paradigm from product and services economic to information economic (Gan et.al, 2007). Despite, ICT also already gives a new way to build knowledge, for instance, classical education has been advanced from e-learning to virtual learning which can bring a virtual condition of a subject to be observed. Secondlife.com phenomenon (a virtual life service provided by Linden Lab) has broadened ICT's ability to build virtual wisdom community and give real benefit to real human's life.

This paper examines current ICT's role in knowledge building and try to explore Islamic perspective on ICT's role in advancing knowledge society into Islamic wisdom community and propose further work by creating virtual Islamic wisdom community as a prototype of e-Islamic World which all human activities as knowledge application can be implemented in harmony aligned with Islamic laws.

The methodology used is a qualitative study through literature review which data are collected from peer reviewed journal, Al-Quran, other Islamic literature, and specific websites as case study.

II. DISCUSSION

A. Current Role of ICT In Advancing Knowledge Society Into Wisdom Community

The evolution of internet begins when all users connected to one central hub (server). It helps people to access data saved in the server from a far distance. In this phase, limitation of storage and variation of data is still not very conducive for research activities. At this moment, knowledge community was not yet developed, since the condition only supported for individual research activities. To date, a highly developed distributed system of interconnected hubs (server) exists. Every hub (servers) can be interconnected which caused the growth of a number of data and increasing various data. It gives a lot of benefit to research activities. Nevertheless, it is not yet fully utilized since the problem of Internet network still can be found in developing countries or rural area. At this time, limited knowledge community has been developed, people's idea in particular community can be reached by other people in other community. In the future, a globally distributed system will offer uniform capabilities throughout the server. It will build a knowledge community that gives individual freedom to share idea and discuss it with others. The system will enable every people to connect each other which have a different platform or language. In this condition, LAN, WLAN, WiMAX, broadband connection already fully utilized. There is no more infrastructure limitation for connecting the computer to Internet network.

SecondLife.com can be a sample of application which enables people to build knowledge community. SecondLife.com is a freeware and web-based application that can be freely downloaded from www.secondlife.com. Once people downloaded the application, he/she must be previously registered in this server. With this application, one will find his/her virtual life in three dimensions. The members can create their virtual life as anything they want to be since SecondLife.com gives a free land to build the house as a beginning life. The member can improve their life by finding a job to have money and making relationship which another member. This application can be an inspiration to create

special virtual community especially for stepping up from knowledge community into wisdom community.

The greatest challenge for education field in a knowledge society is not how to effectively help learners to acquire a defined set of knowledge and skill; it is actually about how to help them learn to manage, work creatively with ideas and to contribute to the creation of new knowledge (Law and Wong, 2003). This condition will ensure the improvement and continuity of knowledge quality in the society. Every part of society will actively contribute in creating a new knowledge; this can be happened through intensive discussion and

knowledge sharing among member of society. Interestingly, knowledge does not always lead society into wisdom community, in fact; it may lead to the stupid community or collective stupidity (Heylighen, 1999).

Up to now, with a computer and the internet, ICT can enhance the human's way of learning through the four-level framework, as figure 1 as adopted from Gan & Zhu (2007). ICT provides the network environment in spreading wisdom community far and wide. It is a new way to develop wisdom community, in which every new idea is merged into the creation of the next new idea and then it produces a new understanding of the essence of being a human and the universe in which we live, that can be shared and spread through the new-born network connected around the world (Willard, 1981). E-Learning, which is extending toward digitization, networking, multi-media and artificial intelligence, is becoming the main platform for online/distance education and life-long learning as its software packages and platforms prevail and is causing a magnificent transformation of learning models (Jansen, et al, 2002; Gan & Wang, 2005).

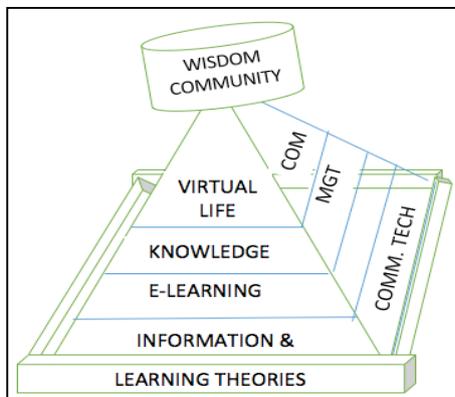


Fig. 1. ICT Advances Knowledge Building into Wisdom Community

Knowledge Management (KM), which is becoming more and more important in the knowledge society, “combines the processes and application of technological tools to digitize, store, and make universally available, via electronic networks, the continuing creation and transference of knowledge and wisdom throughout the life cycle of the educational experience” (Galbreath, 2000).

A Virtual Life Community (VLC) provides a flexible and open learning environment for practicing knowledge building, collaborative learning and converging wisdom community, in

which learners communicate information, discuss problems, pose new ideas, extend points of view, exchange learning experiences, debate opinions with each other and share a common understanding, and they also acquire, classify, store and share knowledge. Thus, learners not only have acquired new knowledge, but they also have attained the abilities of how to learn, enhancing their multiple intelligences, teamwork and collective wisdom (Gan, 2005).

Gunawardena, et.al (2006) explains clearly about wisdom community as community-centred learning environment that offers a new perspective on the importance of creating a supportive context within which learner can navigate the process of learning, collaborate, and become collectively wise. He also mentioned about the goals of wisdom community is to create a wise community that shares a common mission, engages in reflection and dialogue, believe in mutual trust, respect, and commitment cares for the common good and empowers its community.

B. Islamic Point of View on ICT

Initially, this part will try to find the definition of data, information, knowledge, and wisdom and discover connection among them and how ICT can play role in achieving them. The definitions are as following:

- Dorn (1981), defined data as the raw material from which information is developed. Accordingly, the information will be organized to make a decision. However, all raw materials as recognized as inputs cannot be considered as data, only factual information that useful for making reason and decision can be considered as data.
- Buckland (1991) defines information as evidence in learning as the basis to understand about something. The collection of structured information or so-called knowledge is the state or fact of knowing. It can be considered as specific information or it can be defined as specific valuable data which has been gathered or received through study using communication, intelligence or news.
- According to the dictionary, wisdom refers to the ability to apply knowledge into practices, and ability to fulfil her/his needs in harmony with the environment, to comprehend ethics and moral (webster.com). Thereby, wisdom community can be defined as knowledge society which able to apply knowledge in harmony with nature and human’s civilization.

According to UNESCO as reported in Meleisea (2006), ICT refers to forms of technology that are used to transmit, store, create, share or exchange information. ICT can be assumed as a tool that used by the people to transmit, store, create, share or exchange information.

1) The terminology of ICT in Quran

This part will try to explore and interpret Islamic guidance in term of Quran and Hadith which related with ICT. There are few things are mentioned directly or indirectly in Quran and Hadith which related with ICT. More explanation will be

needed to interpret verses which have indirect relation but close meaning with ICT. Here are as following;

a) Personal Storage Devices

“And everything they have done is noted in (their) records (of deeds)” (Al-Qamar: 52)

b) Biometric

"Does the human being think that we will not reconstruct his bones? Yes indeed; we are able to reconstruct his fingertip" (Al-Qiyamah: 3-4)

c) Virtual Reality

In the battle of Ahzab, the forces of the idolatrous Arabs and the Jews were mobilized against Islam and after forming a strong military alliance they besieged Madina, a city in Saudi Arabia, for about one month. As various tribes and groups participated in this battle and as the Muslims dug a ditch around Madina to check the advance of the enemy this battle is called the Battle of Ahzab (i.e. Battle of the Tribes); it is also named Battle of Khandaq (i.e. Battle of the Ditch).

"The Prophet Mohammad took the spade and struck, and the rock immediately turned into a loose sand dune. In another version, Al-Bara' said: On Al-Khandaq (the trench) Day there stood out a rock too immune for our spades to break up. We, therefore, went to see the Messenger of Allāh [pbuh] for advice. He took the spade, and struck the rock uttering "in the Name of Allāh, Allāh is Great, the keys of Ash -Shām (Geographical Syria) are mine, I swear by Allāh, I can see its palaces at the moment," on the second strike he said: "Allāh is Great, Persia is mine, I swear by Allāh, I can now see the white palace of Madain;" and for the third time he struck the rock, which turned into very small pieces, he said: "Allāh is Great, I have been given the keys of Yemen, I swear by Allāh, I can see the gates of San'a while I am in my place." The same version was narrated by Ishaq.i

Ibn Kathir, a famous Islamic scholar said about virtual reality experience in the book "Tarikh Ibnu Kathir" or the "History of Ibnu Kathir", chapter "The Khilafa of Umar": "Umar, whilst delivering a Friday sermon in Madinah called out and said, 'Ya Sariah! The mountain.' That very moment, Sariah, May Allah be pleased with Him, was in a place in Persia called Nahawand, engaged in a battle with the enemy. What 'Umar meant by his call was: O Sariah! Seek protection behind the mountain. Sariah heard this and was subsequently saved. When the people heard these words during the Friday they were surprised. After winning the battle, Sariah came to Madinah. He told about how they had been under attack by the enemy. Suddenly they had heard 'Umar's voice and hid behind the mountain and were saved. To date, virtual reality technology is used for virtual learning.

d) Hyper Media Data Base

“Nay, this is a Glorious Qur'an (Inscribed) in a Tablet Preserved! (Surah Al-buruj: 21-22)

“With Him are the keys of the unseen, the treasures that none knoweth but He. He knoweth whatever there is on the earth and in the sea. Not a leaf but with His knowledge: there is not

a grain in the darkness (or depths) of the earth, nor anything fresh or dry (green or withered), but is (inscribed) in a record clear (Laohul Mahfudz)” (Al-an'aam: 59)

e) Computer

"Read! In the name of your Lord Who created (1) He has created man from a clot (2) Read! And your Lord is the Most Generous (3) Who has taught by al-qolam (the pen) (4) He has taught man the which he knew not (5) (Al-alaq: 1-5).

2) The ICT, From Knowledge Society to Wisdom Community in Islamic Perspective

This part will examine 2 chapters in Quran which has strong relation with ICT, knowledge society and Wisdom Community. These verses can lead a brief understanding about why Islam was revealed to human kinds. "Read! In the name of your Lord Who created (1), He has created man from a clot (2) Read! And your Lord is the Most Generous (3) Who has taught by al-qolam (the pen) (4) He has taught man the which he knew not (5) (Al-alaq: 1-5).

The verse mentioned above is the first chapter receipt by Prophet Mohammad as a declaration of his prophetic. In addition, this verse explained how to build knowledge society as the first obligation, at the final; the wisdom community must be achieved as an ultimate goal of Islam. The characteristic of wisdom community can be found in another chapter namely surah al-ashr. "By the declining day, (1) Lo! man is a state of loss, (2) Save those who believe and do good works, and exhort one another to truth and exhort one another to endurance. (3)" (Al-ashr 1-3).

Quran was revealed to Prophet Muhammad verse by verse periodically. The first order of God to the human being in Islam is "Iqra!" or read! 1400 years ago. At the time, in Arabic community there is no education culture, most of the people cannot read and write. Transfer of knowledge was conducted by memorizing or mouth to mouth, they have no written knowledge.

The order was a great revolution at that time since people were ordered to find data and information or in other words, people were ordered to conduct research activities. Nevertheless, the order of gathering data or information is not limited without guidance. In the same verse on next sentence, God gives the intention to have clear objectives upon research. "In the name of your Lord Who created". Before conducting research activities, clear objectives are strongly needed. Every time, student intends to conduct research, the main objective will be the first thing to be questioned. The Clear objective will give clear orientation in gathering information, analysis data; propose a new theory and creating new technology.

In Islam, there are no other objectives allowed in conducting research but knowing the existence of God, the Creator of the universe, as He mentioned in chapter Al-Alaq; "Read!, In the name of your Lord Who created (1)". God also mentioned the researcher in Quran as "Ulil Albab". It is defined in chapter Ali Imron: 190. "Lo! In the creation of the heavens and the earth and (in) the difference of night and day are tokens (of His Sovereignty) for men of understanding (Ulil Albab), Such as remember Allah, standing, sitting, and

reclining, and consider the creation of the heavens and the earth, (and say): Our Lord! Thou createdst not this in vain. Glory be to Thee! Preserve us from the doom of Fire. (191)". In verse 191, the acknowledgment of God's existence is one of two criteria of Ulil Albab.

The other one is the request for forgiveness, in case their theories, knowledge, technology that they have invented could harm the human being, physically or mentally, and the whole universe. Some famous scientist admitted God as creator after doing long research, such as Einstein; "What I see in Nature is a magnificent structure that we can comprehend only very imperfectly, and that must fill a thinking person with a feeling of "humility", and Newton; "This most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being. This Being governs all things... as Lord over all, and on account of His dominion. He is wont to be called Lord God, Universal Ruler". In the second verse, God convinced the scientist that He is the only thing who deserved to be the clear objectives, "He has created man from a clot (2)", since He created human and gives detail information about human creation as mentioned in chapter al-Mu'minoon: 14. "Then fashioned We the drop a clot, then fashioned We the clot a little lump, then fashioned We the little lump bones, then clothed the bones with flesh, and then produced it as another creation. So blessed be Allah, the Best of creators! "(14). In the next verse of chapter al-Alaq, God gives another direction in conducting research. "Read! And your Lord is Al-akrom (the Most Generous)" (3). This verse mentioned about filtering data and information. Nowadays, we have been experiencing a flooding of data. The condition might confuse researcher especially the beginner how to find out the correct data or information. In this verse, God gives attention to filter data or information by saying Al-akrom (filtering of God). Al-akrom can be formed as a trusted journal or books which relevant with the objective of the research.

Up to now, in order to collect data, information, latest journal etc., we use computer and search engine on the Internet, such as Google, AltaVista, web crawler, and the bright planet. If we see the next verse, we will find particular technology needed in conducting research. "Who has taught by al-qolam (the pen)" al-qolam means the pen, a specific technology used in research activities. The pen is considered as the first technology invention that enables people doing further advance education. In Prophet Mohammad's era, a pen is the latest technology and rarely used in his society since most of them cannot read and write. That's why God mentioned the pen (al-qolam) not a pen (qolaamun) as the latest technology. God orders people to learn and use the latest technology in research activities. If God reveals Qoran today, He might mention this term as computer and the Internet, not a pen. In the last verse, we will find the goal of this chapter as building a knowledge society. "He has taught Al-insaan (mankind) which he knew not (5)". Al-insaan means society or community. So, we can conclude that this verse order prophet Muhammad to build knowledge society as the first obligation.

As previously mentioned that knowledge society is not enough since it can lead to a stupid community or collective

stupidity (Heylighen, 1999), therefore in another chapter so-called surah Al-ashr, God specified some criteria of Wisdom Community as an ultimate goal of Islam. "By the declining day, (1) Lo! Al-insaan, (mankind) is a state of loss, (2) Save those who believe and do good works, and exhort one another to truth and exhort one another to endurance. (3)"(Al-ashr 1-3). At the end, we can conclude this part by seeing figure 2.

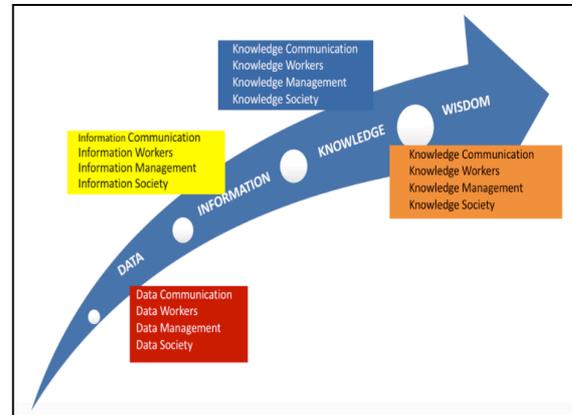


Fig. 2 The Process of Wisdom Community Development

3) Picturing Wisdom Community in Islamic Perspective

Using wisdom definition in previous section, we will find fulfilled condition in Islamic science era as mentioned by Hassan & Donald R. Hill (1986) "It is interesting to note that the technology they dealt with was one which utilized natural forces within the environment in question, making the maximum use of human skills and causing the minimum amount of disturbance to the natural environment".

It does not mean that at the time Islamic scientists were not able to create a complicated machine, but since they knew the impact of it to nature is bad, so they did not create it. "Islamic technology had the means then to make complicated machines (as what the modern technology had developed during the past two century), however, the Muslims never took that step which would mean the creation of technology out of harmony with the natural environment, feeling instinctively the dangers of the development of technology, which incorporates elements alien to the natural environment resulting in the loss of natural equilibrium" (Hassani and Kiat, 2008).

4) Current ICT Application in Islamic Web

There are a lot of Islamic activities already conducted through the internet, such as e-learning, e-banking, e-commerce, e-network, e-matrimonial, e-virtual life, news portal, etc. Here are some of them as follow:

- a) e-banking. (<http://www.hsbcamanah.com/1/2/hsbc-amanah/>)
- b) e-commerce (<http://www.halalpalooza.com/>)
- c) e-games(<http://www.islamic-relief.com/hilal/index.htm>)
- d) e-matrimonial (<http://www.emarriage.com/><http://www.muslima.com>)
- e) e-Learning. (<http://www.shariahprogram.ca/>,www.islamicity.com/,
- f) e-Politics (www.pk-sejahtera.org)
- g) Islamic News Portal (www.erasmuslim.com)

world through implementing all internet transaction allowed in Islamic law. This model will focus on e-learning and knowledge sharing then advances them to be wisdom community by providing virtual conferencing, e-library, e-commerce, e-government, e-society, e-university, etc. This application will provide a relationship between the country member and also for the citizen of the country member. The following is the proposed model for organization structure of e-Islamic World. (Figure 4).

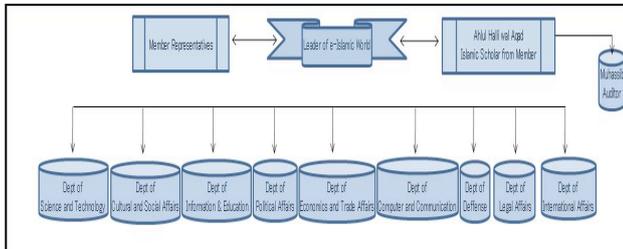


Fig. 4 The Proposed Model of e-Islamic World

Every member will be provided with conferencing features to conduct real-time communication. The feature will enable the user to do voice communication, chatting, real-time file transfer, real-time chart and pictures editing, etc. The feature will be similar to the Elluminate application which is there is a little modification such as video conferencing and minutes of meeting report. The appearance of the e-Islamic world will be like this in figure 5.

Fig. 5. The Appearance of e-Islamic World Model



E-information center will provide information to all members in form of e-newspaper, internet television, e-news, e-radio, etc. In e-entertainment, the member can find e-entertainment such as music, movie, comic, magazine etc. E-society will provide special features for conducting communication such as video conferencing, voice communication, chatting, and discussion board. In this module, the member will find a particular room or allowed to create new room for doing communication with others. Information about culture, traveling, language, etc. will be fully provided.

E-knowledge center is the main module in this application, all communication features such as; voice communication, video conferencing, chatting and discussion board is widely available. E-university, e-library, e-learning module, technology information, online teacher, etc. will be seriously provided. All members must be registered in this module, progress report and graduated certification will be available. Another module is baitul maal, an Islamic charity foundation. Every member must be registered and classified as mustahik, receiver or muzakki, giver. Every receiver and giver will be provided a financial report to see where the money has been allocated. In table 2 we will see the detail of each module.

TABLE 2. THE MODULES OF E-ISLAMIC WORLD

No	E-Islamic World		Country Member' Website Embedded	
	Module	Activities	Indonesia	
1	Central Hub of e-Islamic World	a. Diplomatic services	http://www.deplu.go.id/	
		b. Country member relationship	none	
		c. e-Government for each citizen	none	
		d. etc		
2	e-Commerce centre	a. e-banking	www.syariahmandiri.co.id	
		b. e-commerce	http://www.gramediaonline.com/	
		c. e-auction	http://www.lelang88.com/cgi-bin/lelang.cgi	
		d. etc		
3	e-Society	a. conferencing, blogging, chatting, etc	www.kaskus.us	
		b. e-traveling	none	
		c. culture, language information	http://www.budpar.go.id/indexprofil.php	
		d. etc		
4	e-Entertainment	a. Internet TV	www.transtv.com	
		b. Movie online	none	
		c. e-radio	www.elshirinta.com	
		d. e-comic, e-magazine	none	
		e. etc		
5	e-Knowledge centre	a. e-learning		
		b. e-university	none	
		c. teacher online	none	
6	e-Zakaat	a. online zakat	http://www.rumahzakat.org/	
		b. etc		
7	My room	a. special for member		

III. CONCLUSION

This paper needs further work to be implemented, such as more detail explanation in religious wisdom community theory and exploring all internet activities will be needed to create more varies activities allowed in each module. Analysing the positive and negative impact of launching e-Islamic world to the country member, personal member, and another country will need deep political and economic knowledge. Using Unified Modelling Language (UML), further work will try to design the application model which can be used for building application. Mapping Islamic website will be another challenging thing to be done to see the complexity of implementing the application in the future.

ICT can help people to build knowledge society and also can enhance it to wisdom community. One ultimate condition must be fulfilled to build wisdom community is unity in diversity. Islam as religion has succeeded to gather people from different nation and race. Many scientists agree that Islam is not only a religion but also a civilization. More than six hundred years, Islamic civilization has given a contribution to current life especially in building a knowledge society. Using wisdom community theory, ICT can be used

for special purposes such as building religious wisdom community.

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