Information Technology Implementation at School Library in Indonesia

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A. Oppurtunity

The function of School Library according to Decision of Minister of Education and Culture of Republik of Indonesia Number: 0103/O/1981, dated 11 March 1981, are: (a). The center of learning and teaching activity to achieve the objective of the education as stated in the school curriculum; (b). The center of simple research which enable the students to develop their creativity and imagination; (c). The center of reading activity for recreational and leisure purposes.

The usage of information technology in Indonesia, specially the internet and web technology grow rapidly. The internet user and web sites owner from year to year increasing significantly. Based on the data from Indonesia's Association of Internet Service Provider (APJII) in the end of 2005 the internet users in Indonesia reached 16 million, almost 50% increasing, compare to a year before (2004) which reached 11 million. The increment was 32 times of internet users in 1998 which only 512.000. The internet traffic keep increasing, if in 1999 only 2,05 Mbps, in 2004 has increased to 3.900 Mbps or 2.000 times. If in 1998 only 1.479 web domain listed, in the end of 2004 there were 21.762 web domain name. All of this growth is a real indicator that nowadays information technology has influenced many life aspects in Indonesia. Industry, travel agency, hospital, banking, education, library and government implement information technology to increase their operational efficiency.

In education, the responsibility of the school in entering this new era is preparing the students to face all the challenges and opportunities which changed rapidly. School is required to graduating the best human resources that able to compete in the global competition. The improvement of quality and ability of students may realized by providing a network access to the internet as a medium for accessing any knowledge widely. Providing an internet access

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and building a school's web site could be the first step to improve the ability and quality of the students. Some of the benefit of internet access and web site for the school and students are:

1. Having a medium for providing information regarding the profile, potention, activity, and added value of the school to the public.
2. Having a medium for informing any message or news, either for the teaching staffs, the students or the web site visitors.
3. Having a facility to develop literature as learning resources which contain many material, questions, article in many field of study that useful for the students.
4. Having a database for students, teachers, and alumni that could be accessed on-line.
5. Having communication medium like email or a discussion forum for students, teachers and school.
6. Creating a good image of the school to the public.

B. Problems

1. Internal

In fact so many libraries still facing some problems. The existance of school library is still limited as a room for storing dictates. Library is not providing literatures except the dictates or facilities to access the information outside the library to support the class activities because of the limitation they faced. This condition aroused the students desire to seek reading materials or information outside the dictates. The students have no alternative knowledge.

According to Fuad Gani's (Head of Department of Library Science, Faculty of Culture Studies, University of Indonesia) research in December 2003 (Kompas, 27/04/2006), about 20% of the students claimed that their schools have no libraries. From 50 schools observed, 8 schools have no libraries. The quality of the library is very dependent to the commitment of the school's principal. This long, the principal prefer to build the school facilities like sports courtyard, more classrooms, or purchasing air conditioners rather than develop the collection quality and information access facilities in the library.

2. External

The implementation of information technology at any scope of people's activities should be enable to switch the paradigm in managing the library

from entropic to access. However, some problems in Indonesia still causing IT and internet not optimally used. One of the reason is the lack of human resources, technology transformation processes, telecommunication infrastructure and law that rules.

In the scope of education there are some weaknesses concerning the telecommunication technology infrastructure development, multimedia and information as a requirement for the implementation of IT for education purposes. Meanwhile the penetration of computer in Indonesia is still low. The number of computer in Indonesia reached 2,3 millon in 2005/2006. in 2005 the computer sales in Indonesia reached 858.000 or increasing 18% compare with 2004 which reached 759.000 units. The growth of computer number in Indonesia is 20% per year. Until now the penetration of computer is still low, only about 1,9 – 2 %. Which means from 100 people only 2 who have a computer, this is included the ones in the offices (www.jaknews.com, 11 August 2006).

In addition to the expensive cost of telecommunication services, the telecommunication network is also not spread evenly in many places. The low number of telecommunication penetration can be seen by look at the 240 million of people in Indonesia in 2006, the wireless telecommunication users is only 24,1% or around 45 millions. Meanwhile the penetration of fixed telephone (including fixed wireless) is much lower, around 6,2%.

For that, it is required to improve the spread of internet and telecommunication accesses. The ideal way to spread the internet access evenly is by adding the facilites at some school or certain community, like developing the school or public library.

C. Foundings

According to a research by Onno W.Purbo regarding Perception of Information Technology between young people/students (2006), at some school, shows that the enthusiasm of the students in responding the internet technology, reflected from some founding below:

1. High school or technical school students prefer computer with English instruction than the one with Indonesian language. They even feel strange if reading the computer instructions in Indonesian, since they accustomed with English in the computer.

2. Students prefer the computer with internet access rather than the standalone one, they said that a PC without internet is something not challenging to observe.

3. The high school or technical school students in fact not have so much difficulties to understand many content in the internet that usually in English.

4. Generally, they even feel better if they could using English actively in the internet. It looks like using English in the internet gives more value comparing to use Indonesian language.

5. Some of the teachers and parents claimed that internet and computer could triggered plagiarism, in fact the students feel embarrased if they copying other people's work. Because of the internet, the information could spread rapidly, the plagiarism would be realized by people and the credibility of the plagiarist students would be down.

6. Some of the students stated openly that they feel dissapointed with the computer lesson given at school, because only limited to word processor and spreadsheets. They want something more challenging like web programming, creating HTML file and some other internet related things.

7. Some of the students very attracted to find some pen pals on the internet, this is facilitated by some internet sites like http://www.diffy.com or http://www.kidlink.org which one of their favourite link to get a pen pals from abroad.

8. It seems that the teachers are still could not facilitated their students to use the internet as an integral part of teaching process. Generally the internet facilities given to the students at school are without supervision. It is adviced to the teacher and students to visit http://www.yahooligans.com at teacher's guide part to see how the possibility how to integrate internet and curriculum.

D. Implementation

At high school level the implementation of information technology had been started, but the number is relatively small and limited to the city region. At high school generally the usage of internet is only as addition facilities and not become the main curriculum for the students yet. IT has not been

developed to build some database to store the grades, curriculum, teaching material and students or teachers directories.

Right now there are some internet sites that provide system and education activities in Indonesia. This site is purposed to summarize the information regarding the latest development of education, and for providing a public resources and a forum for school administrator, teachers and other parties. The main purpose of this site is as a facility to be connected among them. As an example is www.pendidikan.net. The initiatives of IT and internet implementation out side the formal education institution, but related with education environment are arousing. One of the initiatives originated by Indonesia's school community could be accessed at www.plasa.com or www.smu-net.com.

Some schools at any level have their own web sites, such as www.smun1-smg.sch.id, www.taruna-nusantara-mgl.sch.id, www.smkbtb-jwa.sch.id, www.smumuhi-yog.sch.id, www.karangturi.com, www.vanlith-mtl.sch.id, etc. Mostly the website are for informative purposes, so it is not possible for the students and teachers to conduct a communication, exchange information or as a facility to develop the quality of the education in wide manner. This is understandable since the computer facilities and internet is still a luxurious thing for most school in Indonesia.

The Department of National Education of The Republic of Indonesia (Depdiknas) as the agency of central government has some programs for improving the quality of the students and schools by implementing internet technology. The Directorat of Middle Level Technical Education (visit www.dikmenjur.go.id) has launched some programs like virtual campus school mapping (www.schomap.dikmenjur.net), School Information Network (www.jis.or.id) and one roof management system (www.simantap.com). Depdiknas through The Center of Communication and Information Technology (Pustekkom) also builded a portal for learning materials and school communication network which located at edukasiNet (www.edukasi.net). Beside Depdiknas, there are some foundations which concern with education and participating in the development of school quality through the foundation of "Sekolah 2000" which creating the web site www.sekolah2000.or.id as a media as to share the knowledge of all science which named OKE (Open Knowledge & Education), at www.oke.or.id.

From information technology infrastructure side, recently a stated owned enterprise like Telkom, Indosat and state owned university like Institute technology Bandung (ITB) show their readiness in developing IT for the education in Indonesia. Telkom stated that they would improving the quality

of their telecommunication network infrastructures which hoped to become the backbone for the development and implementation of IT for education or other implementation in Indonesia. Even, nowadays Telkom starting to develop a technology that implemented ISDN (integrated Service Digital Network) fo held a teleconference as one of the facilities for remote learning.

E. Recommendation

School library is a complementary working unit at school, aimed to provide the reading materials to support the success of teaching process. Many considerations could be proposed as a reason to support the development and implementation of IT in education field in relation with improving the quality of human resources in Indonesia. One of the aspects that proper tobe considered is the geographic condition of Indonesia, which consists of many islands and the contour of its' earth surface sometimes unfriendly.

Information technology has a great oppurtunity to be implemented at school due to these benefits: local area network, connection to the internet, computer laboratory, information system related to school activities like library, students and teachers database, teaching materials, result of the exams, etc. The integration of technology in education system at school must become a type of implementation that support completely the process of teaching and learning at school.

Jakarta, 14 August 2006