

ELECTRONIC LIBRARY : JUST IN TIME LEARNING

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Introduction

Alongwith the phenomenal growth of information technology, and its impelling impact on every sphere of our society, time has come now in the last phase of 20th century to distinguish between a traditional library and an 'electronic library' that is in the offing . People can be creative without libraries, but can there be a creative society without a library? In the library we are all children in that the entire world outside of the school and library becomes electronic with e.g. CD players, phones, video games, and the like . Donovan states that by stimulating curiosity-parents to the twin forces of creativity and imagination – even the most focused and specialized library serves the purpose of lifting the mind beyond its horizons¹. In order for the library to continue to satisfy curiosity and nourish creativity, it must meet the overwhelming need to not only incorporate but to apply technology.

Weinberger opines that to make this future a reality necessitates the *building of an educational system* based on the "just in time" learning philosophy². It requires the development of learning tools essential to survival in this rapidly changing world – tools that teach children to be the intellectual explorers of tomorrow. One such tool is Electronic Library.

Digital Libraries

Sandlian points out that the electronic or digital library is just beginning to take shape throughout the world, including the world of libraries³. The adoption of digital information represents a great step for libraries keeping pace with information technology. One phenomenon that concerns the librarians is the growing fact of the incredible vanishing library. In the developed societies during the last decade half of the elementary and secondary school libraries bought less than one third of a book per student. This is the most compelling reason why a digital library – a library without walls is being created almost unconsciously.

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Now a days the market place arrival of lower cost data storage and infrastructure signifies that increasing amount of information can be made digital. But for the moment, the problem of cheaper storage is being compounded by the volume of new media coming into the market place. In this era of mixed media, the question becomes not just what to buy but in what format to buy it. The digital library solves this dilemma. Margolis asserts, "As we move forward and embrace the concept of the virtual library, what we embrace most importantly is the concept of removing all obstacles. It is the absence of barriers of time and distance that make a library a virtual library.... What we see is a means of sharing information without much regard to time or location. People have the information when and where they want it."⁴

But what about aforesaid bibliographic skills? Does the virtual library require a Dewey Decimal system? Must the data set be part of a controlled circulation? And what will happen if we lived in a world where the information specialist or the library scientist is a 12 year old sitting behind the computer in homeroom? Answers to these questions are being relayed just in time.

Just in time learning (JITL)

Today it is impossible for one person to know everything about his or her chosen field – the amount of information available makes this an impossible scenario. But a person should not be penalized for not knowing what significant event happened on April 14, 1865. People should be measured by their ability to understand the context of this event and what it means to our civilization, past and present. This ability becomes increasingly important in light of today's practice of 'Sanitizing' history and other textbooks for political correctness. Our system of education, our learning tools, should provide for students the access to information as it is needed. No one author of text book or curriculum guide can prepare a student to appreciate and learn from an infinite data set. Such a data set, requisite for JITL to succeed, is found in the existing digital library. Weinberger believes that "Just In Time Learning (JITL) is a fundamental embodiment of the key elements needed to propel students from twentieth to twenty first century learning. Digital library can certainly help in this worthy endeavour."⁵

Just in time learning with Electronic Library

Designed from the ground up as twenty first century literacy tool , Electronic library embodies all of the necessary technical requirements that make JITL a real possibility by the turn of the century .

This can be illustrated to show how the potential technology may have incompletely revolutionizing the learning process. There are four distinct elements of Electronic Library that support JITL .

Table:

Elements of twentieth (Classic)	VS Twenty-first century Learning(JITL)
Finite data set	"Information Space" or limitless data set
Rote memorization	Critical thinking & exploration
School learning	Lifelong learning
Information have / have-not	Information democracy

For the new information space, there exists a vast and diverse collection, i.e. a library of hundreds of newspapers, magazines, classic books, encyclopedias, thousands of images and maps, as well as major works of art and literatures.

Children are so innately inquisitive that there is no one book or encyclopedia that can provide all of the information they seek. For this on-line reference-library is a necessity.

The second element of JITL, Critical thinking and exploration. To incorporate this element of JITL into Electronic library, it entails designing the search engine to both encourage and enable children to think for themselves and to make it conducive to the learning process and growth of information gathering skills. As easy as it is to differentiate a banana from an orange, a five-year-old mind can grasp either-or and if -- then thinking skills which are the basic building blocks of critical thinking. Equipped with this mental tool, a child can amass a sea of information and draw conclusions based on objective reasoning that suits that child's tastes or values -- not the values or answers one text-book author sets down as relevant facts.

Life long learning. By giving our children and adults these opportunities to access real world information and rewarding them for seeking it and by equipping them with the ability to sort it out, they get life long education. They will become life long learners. And the continuing evolution of new media tools will only serve to reinforce the ease of acquiring new and meaningful information that was out of touch in their lifetime but is now available at the touch of a key, e. g. any specific subject put online by an information science student can be made available to everyone via the World Wide Web in the days to come.

Information democracy. All data are available all the time and are easy to access. Herndon notes that Electronic library's high level of intuitiveness makes it easy for children of all age.⁶

Furthering the cause of information democracy are the plans to create a distributed database network for Electronic library subscribers. This network would allow subscribers to become Electronic library content providers, completing the circle of JITL.

Conclusion

While the future is quickly exerting upon us, the debate continues to rise over technology and its role in our school and libraries. But let us consider at the same time an alternative, i.e. a nineteenth century curriculum based entirely on paper text books. As such, most of these texts contain outdated information by the time they are printed. It is difficult to debate what many know to be true: technology can do what text books cannot achieve. The power of digital libraries and new information technologies can bring this achievement by breaking the shackles of nineteenth century literacy. The downward pressure on costs for technology and communications matched with new and easy to use learning software means that Just in Time Learning, a 21st century learning concept is becoming a reality for all of our people.

References

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