INFORMATION TECHNOLOGY AND ITS USE IN THE CLASSROOM - A NECESSARY BOON OR UNWANTED BANE

Oleh

SHANTHI NADARAJAN

Centre for Language Studies
University Malaysia Sarawak

ABSTRACT

This article offers a critical overview of the cultural and educational benefits of the Information Technology era. It also looks into the dangers of the digital media especially for young people. It argues that the utopian concept of the multimedia age is more of a publicity hype and needs to be treated with caution. In contrast, there is a need for more measures and accounts of how young people perceive such technologies. It goes on to deal with previous research on children and pre-university students. The author calls for the need to pay importance to the transformation of learning, not only in theory but in the day to day practice of classrooms. Recent research into ICT and literary is reviewed, with suggestions for practical possibilites for cross – cultural collaborations and implications for the future are considered.

Tajuk ini memberi satu pemandangan kritis tentang kebaikan era teknologi maklumat dari segi kebudayaan serta pendidikan. Ia juga membincangkan tentang bahaya media electronik khususnya dikalangan generasi muda. Menurut penulis kebanyakan dari janji-janji manis tentang era multimedia ini berupa publisiti dan perlu kajian mendalam. Yang lebih penting adalah langkah-langkah dan kajian tentang cara-cara kaum muda ini menerima teknologi sedemikian. Ia juga membincangkan tentang beberapa kajian lepas yang telah dibuat dikalangan pelajar sekolah dan pelajar University. Dengan itu, masyarakan pendidik perlu memberi perhatian pada perubahan sistem pendidikan disebabkan media elektronik ini, dari segi teori serta amali. Kajian terbaru tentang ICT dan pendidikan juga diulas dengan cadangan untuk pergunaan yang lebih berkesan.

> *"Excellent and Inspirational teachers of English do not work best in a cage. A love of English is the last thing you need to teach to these orders and syllabuses that change from time to time."* – Andrew Goodwyn

Key Words
Multimedia, ICT, literacy, digital technology

LEARNING, LITERACY AND ICT AND ITS CONNECTIONS

Lets begin with the term learning, literacy and ICT. We need to set these out before we can establish the possible connections between classroom teaching and the advantages of the infomation technology era. I'll start off with the connections between them and then go on to look at some case studies of practices and implications for learning and teaching.

As far as the curriculum and ICT is concerned, learning means findings things out, developing ideas and making things happen. Of course this has a lot to do with exchanging and sharing of information, reviewing/modifying/evaluating work as it progresses. This is a good approach, in fact, something I guess most of us have been working with. But I find it somehow static because this is what our teachers have been giving us all the time. You get the information, you interpret it according to your own terms and then accept it as something learnt. Learnt, stored and reused when needed – doesn't sound very interesting does it (compartmentalisation). Now we have an alternative, a more dynamic conception of learning, four main characteristics namely community, dialogue, transformation and framing. **Community** because learning is an effect of the community (Rogoff, 1990; Andrews, 2001). It does not matter whether the community is the family, the school, a neighbourhood or an electronic community. **Dialogue** is the website, the teacher, the parent or peer and the social verbal interaction involves more than exchanging of information, reprocessing that information, making it one's own and adapting it to one's sensibility and needs. The social interaction becomes internalised as thought (Rogoff, 1990; Vygostky, 1986). **Transformation**, because internal learning and the social interaction of the classroom involves taking one text or phenomenon and making it something elses. However, we must note that in most formal teaching, there is actually very little transformation taking place. A transformation, if at all is probably very little. *As little as 1 degree of the young child's mind*. What teacher's must aim to do is to really transform the child's mind, allow them to discover as much as 180 or 360 degrees. When there is such kind of transformation, only then would there be enjoyment but this is what is lacking in our curriculum. Now the missing link here is the act of **framing**. Subjects are frames within which knowledge is shaped and a discourse is set up. Though we have the term across the curriculum, we teachers still find themselves tied to teaching the basic concepts, skills, and making sure that their aims and objectives are achieved. To top it all most teachers have in their mind certain skills which they must teach.

THE REAL SITUATION

Thus, regardless of whether we have ICT, or otherwise, what we have here is merely a level of literacy that is no better than what it started out with in the first place.
- Reading standard among 10-11 and 15-16 year olds have changed little since the 60's and 70's (Andrews,1999)except from slight rise when the KBSR began.
- Students have very poor reading and writing skills even at secondary schools.
- A large percentage of stude nts can deal deal with only very simple material and even then the teacher has to literally explain what they have to do.

Then on the other end of the continuum, we have with us
- Students who are exceptionally intelligent and those who find the system unchallenging and boring.
- Students who demonstrate a command of "higher-order information' processing skills and have little faith in what the teachers can teach because they think they know better.

- The students who appear to benefit if at all are the middle class students and the average students.

Well, it is not so bad, if these students are in between but it is the extreme ends of the continuum that we have to worry about. So, returning to the subject of ICT (Information and communication technology), I'm going to concentrate on computer based technology, including access to mobile phones to digital information, but particularly to computers because of their current ability to intergrate verbal langauge, sound, still and moving images as well as graphics to multimedia formats.

THE CONNECTION

According to ICT, reading and writing becomes reciprocal, like speaking and listening. There is an opportunity in every subject in the curriculum to say what is written in the subject- anything is possible-all the forms in which young people write, from reports to 'notes' to reviews and so on. Now, finally teachers have the opportunity to transform classroom practices to produce the written expression. We can see the world through *the Window*, so to say.

Of course, when it comes to on-screen reading, the length of the text is often shorter than what we would traditionally like them to read in print. In another aspect, when we ask students to take up the initiatives themselves to search the Internet for information, we have to make sure that such information is processed by students into longer cohesive texts that involve thinking in the process of their making. In other words, we teachers need to guide students from merely presenting the information obtained to an argumentative form. Now, this is the first connection. We cannot leave students to present information as it is. They must be taught to process it to suit the task. There must be the element of argument, critical literacy and critical thinking in the product.

The second connection is that the computer has a distinctive feature that no formal teaching can compete with, which is the visual interaction that comes alongside the verbal as a major channel for the representation of knowledge and the practice of learning. You could argue that good teaching could still do without visual or ICT. It's important to consider such an option, because a lot of teachers take pride in their being able to teach well without ICT and the key to rewriting the curriculum in future would rest in the hands of teachers who know how to teach well. But we must consider motivation. Motivation can come in a lot of forms such as humour, real-world audiences, real responsibilities and a host of brilliant ideas.

Now, how does ICT add to these? Being able to read the visual and verbal alongside each other and also to create multimedia texts are some of the most engaging aspects of on-screen learning. The key creative act in such verbal/visual dynamics and the rapid interchange between reading and writing enables the composiiton to be restored to a central place in leanring. The student literally "puts together" elements of image and texts that he/she has researched, representing them and hopefully transforming them for a different task. This definitely makes school work much like real work and because such acts have real impact, students motivation and commitment tend to be greater. This also involves more of the student's personal capabilities and their commitment to the community, helps present better quality writing and composition and thus raise standards in literacy and enhance learning across the curriculum.

Of course, there might those of you who probably would be telling yourself, so, what else is new. After all the same information (digital data) can be found in encyclopedia and the great books as well. All you need to do is look them up. Well, true, I agree whole heartedly. But, really, how often do we returned to these great books to look up for the information. How often have we read up on a specific topic, thought and argued over it. In a society where the average Malaysia reads only 2 books a year (Lynn, 1972, Shanthi, 1999), library research is something probably done only students and academic icans (exceptions being there once in a while)

However, the multimedia potential of ICT is a multi sensory one whereby it is able to embrace and inspire the social dimension at the click of a mouse. It is able to use visual and aural as well as stimulate and engage, and provide kinaesthetic experience for young people. Of course, if you are from the group of prescriptivists who insists that the very nature of education is to limit all other distractions and only focus on the topic, then you would find the computer to be a piece of equipment that confuses and complicates learning rather than enable it. And at the core of the whole problem rests the issue that students must have basic apprenticeship in using the computer before you can let loose the compositional demands of multimedia. Unfortunately, these are questions that will always be present. For better or for worse the Computer age has come to stay and we cannot avoid but get onto the bandwagon. We all realise that computers provide information but the question that remains, is how do teachers create explanations, arguments and configurations which will make sense of data in social terms.

INFORMATION TECHNOLOGY
ICT AS AID – A WAY OF EXTENDING EXPERIENCE WITH SIGNS AND SYMBOLS. IT IS A COMPLEMENT TO READING.

According to the *Guardian 2000,* only 9% of children in the U.S. use electronic sources exclusively for obtaining reference information. So, it looks like reading will continue to flourish. In a separate reseach funded by the *Partnership and the Research group Book Marketing* involving a working sample of 1700 adults and 700 children, 58 percent of young people are using CD-ROMS or the internet for obtaining information, but 60 percent are still using books. However, what is interesting is that after 15, the use of the Internet and CD-ROMS tail off and fiction reading begin to rise to a plateau of about 80 per cent of the population. So, it appears that parents and teachers do not ahve to fear that the computer era will limit children's reading habit because this is similar to the fear that arose when television was invented and the death of the book was predicted. Well, fiction buying and reading continues to be strong- and the prospect of reading Harry Potter on an electronic book still does not appeal.

THE ELECTRONIC MEDIA AND CREATIVITY -THE SKY IS ITS LIMIT

Abbot took a sample of 200 websites which appeared to be the products of young people within the range of 12 –25. Based on an e-mail survey, many of these young designers wanted to build up an electronic community largely for enhancing communication. Another group simply used it as a form of developemnt of the site as an artefact complete in itself. The third was created to inform others about real-life events. Of course among these were a few set up by young enterprising teachers focusing on effective pedagogy using ICT in

primary schools and for teacher usage. So, it is evident that there are a considerable number among the youth today, dho things with society's best interest in mind. So, at the end of it all, we stand to gain substantially. All it matters is that the user and the teacher knows how to use modern technology effectively. All it takes is a dream, a generous heart and a lot of hard work.

IMPLICATIONS FOR TEACHERS

As teachers and educationists, teachers have to ensure that
- pupils have ICT skills, to enable them to achieve their objectives; and
- pupils are given access to ICT to achieve the learning objectives.

Unfortunately, when we live in an era when the ambitions and projections are high but the availability and resources are low. Many children and teachers do not have computers. So, this situation has to be overcomed. Research has proven time in and again that :
- a high proportion of teachers who were provided computers made effective use of their school computers;
- teachers' confidence and competence changed for the better when there are computers in the staff room;
- teachers find their knowledge of ICT increasing "substantia lly", (peer group teaching and influence);
- teachers change their way of working;
- teachers enthusiasm for their work increased; and
- there are positive benefits for teaching and learning.

However, with teachers who have their own PC's at home, many were found to use it only as a word processor, often leaving it for their children and spouses to use. They were not as motivated, to use it to transform the classroom situation.

SUGGESTIONS

In the light of the fact that the nation is spearheading with the need to teach Maths and Science through English and the suggestion that the teaching and learning would be carried out through softwares, the importance of access and familiarity should not be forgotten. It is one thing to be trained; it is another to have the power to continue developing and learning from ICT. In other words, it is fine for Principals, school clerks and senior management to be given free PC 's to work with, but frontline teacher trainers and teachers need them too.

At this juncture, I'd like to make two points here. The first being that we need more research, because our findings are largely based on what the West has discovered. Besides ICT is developing too fast for research- especially logitudinal research- to keep up with. Sometimes, we only get information which may already be disinterested in. So, we need more research and results on how it is working within our system.

Finally, I would like to consider the reality of the situation regarding the use of ICT in the classrooms. First, the provision of computer equipment in Malaysian schools is rather patchy. Difference in provision having largely to do with policies, school board management, lack of technical know-how of ICT and the relative distribution of hardware in schools certainly

hinder the progress of ICT use. Then again, the different uses to which the computers are put in the home give us a hazy picture. So, we really do not have conclusive results about the use of ICT's in schools. So, the reality, then – I must say which is not really anything new, but a reechoing of the famous quip –computers and the information technology era despite the hype is certainly not the panacea for education. Nor does it guarantee the raising of standards in literacy or the curriculum. Rather, it is merely another effectve means of expression and one among the numerous ways of exploring and obtaining information.

We have also to realize that in trying to raise the achievement for all primary and secondary pupils, we must also consider the needs and requirements of the top and bottom groups who needed special attention. So, as educationist, if teachers are genuine in their aims to improve teaching and learning, they must learn to use ICT to help weaker pupils so that the gap can be narrowed.

CONCLUSION

If we could project ourselves into the future, say about five to ten years, maybe we could include the use of ICT within the curriculum because the truth remains that the importance of visual representations and the moving image will finally move centre stage in the education of the young as elsewhere in the world. So, schools need to diversify even more. Presently, we need a dynamic theory of learning via ICT that would complement our present system of holistic education.   ICT must not only be seen to provide information, but to provide a starting point,   a contribution or as a means of presentation for a cognitive curriculum. Finally, I would like to end my presentation with a work of consolation for the bookworms among us "for the time being, the book (especially for fiction) is safe". Lets buy another book to keep up with information technology.

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