

COUNTRY REPORT ON MULTIMEDIA AND INTERNET FOR CHILDREN AND YOUTH IN TAIWAN

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Abstract: The actions of Taiwan government for promoting information education have been carried out since 1996. The main goal is to educate students of primary school and high school about the basic information knowledge and the internet. The actual actions will be described. There are many kind of multimedia CD titles in Taiwan market right now. The major types of multimedia CD titles will be discussed. And the difficulties of developing materials of CD titles will be discussed.

Actions of the Government

Effective actions has been taken by the government. Actions of those included both for industries and the education systems. For the education systems, planning regular budgets every year to establish the personal computer classrooms, designing the standard curriculums of information technology for the primary schools and the high schools, training all teachers of the primary schools, the high schools, the collages, and the universities, encouraging the publication companies to publish books for teaching students how to use the personal computers and the internet, holding annual exhibitions in major cities to educate all people, and many other actions to promote the use of computers. The influences of government's actions are wide and positive. The bases are firmed to the future.

The government recognized that using computers in the future is able to make people work more efficiently, and then promote the competitions of Taiwan. At the beginning, there were many things needed to be carried out. The key, however, is the people who can use the computers.

The most powerful action that the government took is the execution of the plan of education the students of the primary schools and the high schools since August 1996. Every student must learn how to use the personal computer. This leads to the most students are highly interested in the use of personal computers.

On the other hand, the uses of internet and e-mail were promoted, too. More and more people, children and adults, get into the internet. The capacity of internet was enlarged for several times to meet the needs of users. Right now, a project that hopes 3 million internet shops will be opened is being carried out. Hopefully, this project will be done in the next two years.

According to the government report on 8th January 1998, in average, one forth of families in Taiwan have a personal computer. The hardware is ready for children and youth for both at home and in their school.

To summarize this section, the users are mature, the environment of information is going to be ready in the near future. Especially, the preparation of information education is being carried out. Our children and youth have learned the basic knowledge of information age.

The needs of software, especially the multimedia CD titles, are rapidly increasing.

Main Kind of Multimedia CD Titles

Today's computer technique has brought us to a new era. Especially in the children software market, as the CPU speed getting faster and the popularity of using the CDROM drive which is rather expansive 2 or 3 years ago and is much slower in accessing speed. It is also effected by the cost down of the main memory and the large storage device. (DRAM & HARD disk drive). The starting role is then lead to the CD title hence there are lots of new comers in this off-spring field to make more and more oppurtunities in this ramp-up market.

Multimedia equipment are mostly built in the combination of video signal and audio signal processing unit controlled by the central PC based system including the large storage and compact disk device. When the CDROM carries the 650M bytes information including sound, audio, video, it becomes the best choice in children education and amusement. In facing of the different kinds of CD titles it is very hard for the parents to make a decision in taking one which might be most possibly came from the U.S. and introduce some different concept of culture to their kids. Owing to the lack of selection children have to play with the foreign cartoon or education software in their childhood. In Taiwan the best selling CD titles are games. There are less then ten companies dedicated themselves in the children education products. Hence CD titles for the kids are few in the market.

As the personal computer is getting more and more popular the internet users, the increasing quantities of CDROM drives lead to an increasing demand of software. The situation is that while the children are using computer software occurred as stated below:

- 1) Few kinds of software alternatives in choosing
- 2) The foreign software's barrier in language and culture
- 3) The native makers are few in their production quantities
- 4) The game products share the main portion of the software market

The population in Taiwan R.O.C. is about 20,839,000 according to the government publication. The children (aged from 0-14 years old) population is 24.84% that is around 5,000,000. The percentage of households that own PC is 81% and 35% can access to the internet according to the publication of Institute of Information Industry. Also it is estimated that 98.7% of the schools have PC and 22% have access to internet. The most used multimedia related electronic equipment are video player, stereo, handycam, TV set, computer, etc. in the family and in the school.

From the same source we also have that there are 220,000 people own a pager, and the most interesting thing is that there are 100,000 kids among the pager users. The multimedia market is still growing up yet the lack of various CD-titles can obvious be seen to have much work to demand. There are actually few choice for parents to

The CD title in the market often seen is divided into several types listed below.

- a) The I/Q education titles
- b) The RGP adventure knowledge titles
- c) The interactive animation titles
- d) The living books
- e) Story
- f) Encyclopedia
- g) Language
- h) Painting for the kids
- i) Cartoon
- j) Primary school and middle school material
- k) Others

Because most of the CD titles in the market are the foreign made product (i.e., Disney land, or Bat man, encyclopedia...) The local product share only little portion in this market. And most of the local product focus on the language education especially English and some IQ games. The foreign product are mostly the living books or cartoon or encyclopedia.

Another new kids favorite is the interactive education titles. Most of the CD titles require the minimum 486 system with windows 95 and windows 3.1, CDRom drive, main memory 4 to 8M Bytes Dram, HDD space 5M bytes, VGA, sound blaster card, for example, in 1996 there is a series of smart kids CD sold 2000 kits within the first announced two months.

The kit include 5 CD titles selling at NTD 2000 which telling the stories in language. Chinese dictionary, mathematics, multi-language teaching, and some creative initiated intelligence courses. It is a CAI based title kit.

The bed story includes the multi-language based pronunciation and delicated motion pictures. Using the space town and beautiful pictures to introduce the primary school mathematics 4 rules of operation. (add, minus, multiply, divide) called "the winner of mathematics".

Another CD title is about the toy and intellectual RPG to train the kids' ability of reference and reasoning. As for the English tutor CDROM is cooperated with the famous local kid private class to break though the traditional ways in learning English from the games. The most special title is the Chinese multimedia dictionary to let the kids understand the traditional culture.

The CAI (computer assisted instruction) CDROM is very welcome to the most of the family in our country. CAI is the combination of the teaching theory and computer tools to present the content of lecture.

In a vivid way. It is also the helpful tool in assist school teacher or the individualized student self learning software. The user can adjust the learning speed according to the ability, time, schedule. Some of the software might be able to response to the student in accordance to the user's response. This means the possibility of individualized self learning and the learning by funny playing. The multimedia CAI will be the trend in the future since the picture, sound effect are impoved a lot. The CAI will get to the multimedia, internet based, and multi purposed. In the future only one personal computer the students can take their courses at home. And the government (department of education) compressed the CAI CD including 373 software. The CD content as stated below.

- 1) primary school: Mathematics, nature
- 2) middle school: Mathematics, English, Physics
- 3) others: high school subject, live and communication training, etc.

Another CD includes the 260 similar courses and some kindergarten native language subject, educating games, health knowledge, etc.

The CAI CDROM can include many subjects, the user can be from the kindergarten to the college students. The application is in such a wide range. The sprints of design a CAI CD title is to design the different contents according to the different subject and students, so the promotion of the CAI CDROM need different field of specialist, teachers who design the material to be introduced, programmers who design the titles, multimedia related experts say photographer, painter, etc. The department of education assign the schools and subcontracts to the private companies to develop the CAI software. Meanwhile they train a lot of school teacher in CAI application and design to enhance the quality of the CDROM production to help more students and prepare for the future information based society.

Difficulties of Developing CD Titles

There are different difficulties of developing CD titles for different companies. Basically speaking, there are three major difficulties: the software house is small scale, the local market is small scale, and the good material or scripts are not clearly defined.

For the small scale of the software companies, most CD title makers are quite small. They have relative low intention to develop a very high quality CD title since the cost is too high to stand. This leads to the products are not so good in either the contents or the presentation skills.

For the small local market, the average sales quantity of a normal CD title is about 1000 pieces to 2000 pieces. The revenue from each product can not offer a good team to survival.

For the lack of the good script definitions CD title makers and the buyers have great different views. Not only for the material or scripts but also the presentation skills. Because the skills of presentations are quite different, different people rank the same presentation skill with great differences. It is an art.

Despite these difficulties, companies in Taiwan work hard and try to find some breakthrough.

Concluding Remark

Children and youth in Taiwan have great opportunities to learn the use of personal computers, and thus have great opportunities to learn by PC either through the multimedia or through the internet today. The lack of good CD titles will stand for several years. There is no common definitions on what is a good multimedia.