

# Moral Education Enhanced by New Media in IT Courses

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## Abstract

ICT used in classrooms has brought great change in the way teachers teach and students learn. Now with rapid development and wide spread of new media such as Facebook, YouTube, Podcast, etc., many students and teachers start learning and communicating through them. Moreover some researchers have developed theories for this new style of learning: Technology Enhanced Learning. It enlarges the time and space for learning, provides better support and helps to develop students' information literacy. However when we enjoy the advantages of the new technologies, we also have to solve the moral problems caused by the media utilization. As high school teachers, we need to find the way to conduct moral education and make the students understand each other better and live to be together in this new virtual world. As a fast developing subject, IT course contains a variety of new technologies and new moral problems which students have to experience and learn in order to survive in the information society. So let us design relevant new activities for students to enjoy the advantages new media bring us and conduct moral education as newly expected education objectives.

***Keyword: Moral education, New Media, Students' Activity Design, IT Course, Education objectives, Information literacy***

## Background

With the rapid development of the internet and mobile technology, the information cycle (Figure 1.) is changing. Now everyone can take part in the every step of the cycle, which offers learners more educational opportunities, and the prospect of transformative change in teaching and learning.

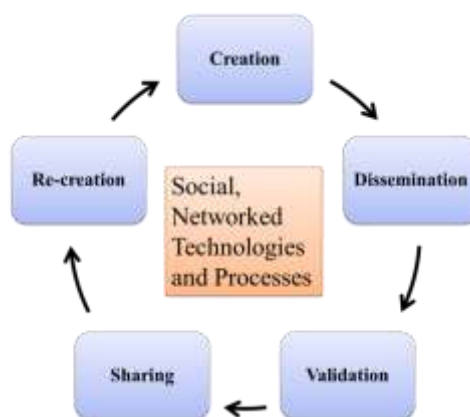


Figure 1. The information cycle<sup>1</sup>

According to the surveys conducted in both Japan and China, young people are one of the groups of the highest level of Internet users and the most important groups in mobile Internet users. The rates of these young Web surfers who are using the blog, forums, social networking sites and instant messaging, are higher than the average level of overall Internet users. So if they use the internet for fun, why not get them to use it for school? We should combine the traditional classroom activities with new internet tools to offer more education and support for students' study.

Moreover, by the growing popularity of Internet culture, network is gradually changing not only people's thinking ways, values and the spiritual world, but also traditional ethics, especially young people. For example, it is very important to discuss the problems about the intellectual property protection for online file sharing, the personal information leakage from on-line chatting and shopping, the strategies against hackers, cybercriminals, and etc. But the traditional method is usually to preach, ignoring the student's participation and emotional attitudes. This method is lacking a certain appeal to students, and even lead to make them produce reverse psychology. So we need to design new ways of moral education which is compatible with the information age and can inspire students to participate.

It is time to combine the traditional classroom activities with these new internet tools to offer more education and support for students' study.

## Information Education in Japan and China

Both China and Japan started Information Education in 1980s. But comparing the structures shown below (Figure 2.), the two countries have different way of building Information education system in primary and secondary schools.

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<sup>1</sup> George Siemens (2009). The changed information cycle. Retrieved June 4, 2012, from <http://www.elearnspace.org/blog/2009/04/17/the-changed-information-cycle/>

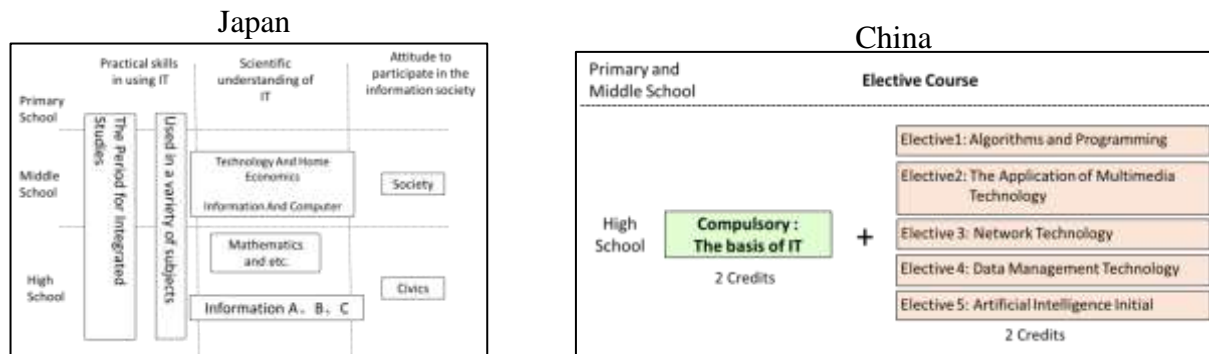


Figure 2. IT Education in primary and secondary school in Japan<sup>2</sup> and China

In Japan, although there is no IT course in primary school, the IT education is conducted in Integrated Studies and used in other subjects. And is mainly focus on information ethics and basic operations. So, the pupils get familiar with the technology and learn to utilize it in a proper way. In middle and high school, the IT course is well organized and structured. The IT education is focus not only on practical skills, but also on scientific understanding and appropriate attitude to participate in the information society. So, besides IT course, other subjects, for example, Society, Civics, Mathematics, etc. also play an important role. This interdisciplinary system is being well and balanced implemented all over the country.

Moreover, a strong emphasize is put on moral education. Japan designs five areas of Information ethics<sup>3</sup>: Ethics of information society, Understanding of and compliance with law, Indigenous knowledge of security, Information Security, and Construction of public social networks. And a lot of supporting materials are developed by government or organizations, and can be easily accessed by students, teachers and parents through the internet.

In 2013 Japan is going to implement new standard in High school. The Information A, B, and C are re-divided into two courses: Information Study for Participating Community and Information Study by Scientific Approach. Schools can choose either one.

China is a developing country with large population and area. The unbalanced development makes it very difficult to have the same standard all over the country. So, IT course is an elective course according to local condition in primary and middle school. But in high school, IT is a compulsory course, and besides the basic knowledge of IT, students have to choose one elective course from 5 areas. This system has been put to implement since 2003. Now, IT courses is a popular subject, but also facing some problems. The analysis can be summarized as follows:

- With large amount of information and limited time, it is difficult to have enough interactions with students in classroom.

IT courses are mostly held in computer laboratory. Computers and Internet provide students with borderless space to explore. So, it is easy to raise the students'

<sup>2</sup> Japanese Ministry of Education, Culture, Sports, Science and Technology (2002).The implementation of IT Education and Informatization of School. Chapter 2, 61. Retrieved May 20, 2012, from [http://www.mext.go.jp/a\\_menu/shotou/zyouhou/020706d.pdf](http://www.mext.go.jp/a_menu/shotou/zyouhou/020706d.pdf)

<sup>3</sup> Kazuhiko Ishihara (2007). Five areas of Information Ethics. Retrieved September 1, 2012, from [http://www.nctd.go.jp/5min\\_moral/contents/download/outline/a04.ppt](http://www.nctd.go.jp/5min_moral/contents/download/outline/a04.ppt)

interest in learning. However, in order to integrate more knowledge into time-limited courses, most of the time teachers are demonstrating while students are watching. The lacking of interactive activities will make students get tired easily, and lose the enthusiasm.

— IT course focuses more on knowledge and skills, and it is hard to find time to discuss moral problems.

With fast development of technology, more and more new moral problems appear. So it is very urgent to emphasize the moral education in IT course. But in classroom teachers barely manage to finish the knowledge, for the moral part they just point out what to do, which students feel boring and pay no attention. Teachers need good topics and more time to start a discussion to involve students to think and debate.

— With different students' starting point, it is difficult to involve all students in the same activity.

IT teachers try their best to design activities close to students' daily life, in order to implement the knowledge with practical skills. However, in lower secondary schools, IT course is an elective course, students entered high school can have large gap. Therefore, in classroom, while some students feel that the activities are too simple and boring to do, some other students cannot understand, cannot keep up with the pace.

— It is difficult to keep students concentrate on designed activities.

By the influence of constructive learning theory, teachers design collaborative learning activities which intend to involve all the students. But high school students are still lack of self-control. The activities are mostly finished by only 1 or 2 students of the group, while others are surfing the Internet, playing games, etc. The collaborative activities turn into a small number of students' tasks.

— With rapid development of IT, it is hard to provide timely materials for students.

IT course's textbooks focus more on general theory and methods avoiding specific software, in order to keep up with the fast development of technology. For example, one version of the textbook involves 15 pieces of software to explain the application of multimedia technology, while there is no detailed instruction of how to use. The lacking of detailed guidance for usage makes students unable to understand. Students are always confused about this. They just look at cool software introduced by the textbook without knowing where to download or how to use. So the teachers have to develop a lot of material as supplements.

— With time-limited class, it is hard to provide students timely help.

IT courses usually hold once per week, it is difficult for students to keep everything in mind. When they have problems in daily life, for example editing a video for their trip, they cannot get advice timely. Therefore, teachers need to find a way to communicate without time and space limit.

Facing with these difficulties, traditional classroom courses should combine with new technology, providing limitless time and space for both teachers and students.

## **Students' activities design with Blended learning theory**

Considering the characteristics and problems of IT courses in high school, the blended learning theory may give an effective solution. Singh and Reed (2001) believe "Blended learning focuses on optimizing achievement of learning objectives

by applying the ‘right’ learning technologies to match the ‘right’ personal learning style to transfer the ‘right’ skills to the ‘right’ person at the ‘right’ time.”<sup>4</sup>

Blended learning not limited in one learning theory, combining traditional classroom teaching and online learning, dramatically increases time, space and the interactions between teachers and students. Using different learning methods, blended learning allows every student builds personalized learning space. Teachers’ working in a variety of roles, provide students with individualized guidance. During these teaching and learning process, students are able to access to rich resources combining the advantages of a variety of media.

- a) Choosing appropriate topics for moral discussion.



Figure 3. Criteria for choosing appropriate topics for moral discussion

In order to conduct effective moral education through the activities, first of all, teachers need to choose an appropriate topic. Basically, the topic should be combining the practical skills, basic theories, and information literacy (Figure 3.). But information literacy covers a wide area. For students in secondary school, the topic should be focus on basic things and close to students’ daily life. So the topics can be narrowed to the appropriate usage of internet, responsibility, and against crime. For example:

- Keep our computers secure on internet.
- Respect for personal privacy.
- Respect for intellectual property.
- Evaluate information received from internet carefully and objectively.
- Publish information on internet responsibly.

From these topics, students start from keep themselves safe, to learn to respect other people and their intellectual properties and to not only accept but also participate the informational society.

Moreover, in order to sustain a high level of participation, these topics should be presented in some ethical dilemmas, and need to combine these topics with skills and theories. For example, in Multimedia part of IT course, the activities can be designed as following Table 1:

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<sup>4</sup> Harvi Singh and Chris Reed (2001). A White Paper: Achieving Success with Blended Learning. Retrieved June 15, 2012 from <http://chriscolleassociates.com/BlendedLearning.pdf>



classroom activities (Figure 4.). Teachers give keywords and background materials for students to read and search before the classroom activities. This can improve students' ability of searching and summarizing certain information through internet. After the study and discussions in the classroom, teachers can also provide more materials online for further usage and discussion. The teachers have to think clearly about specific student and curriculum needs and the most effective means for presenting different types of content.

c) Building appropriate environments for the activities.

Focusing on the activities, students have different learning methods, while teachers play corresponding roles. And we also need supports from media and hardware (Figure 5.). Besides learning management system (LMS), we have many tools developing rapidly and being widely used, such as blogs, wikis, Skype, chat rooms, discussion forums, social networking tools, etc. Teachers do not have to build a specialized LMS, but to organize these online tools with certain degree of technical proficiency.

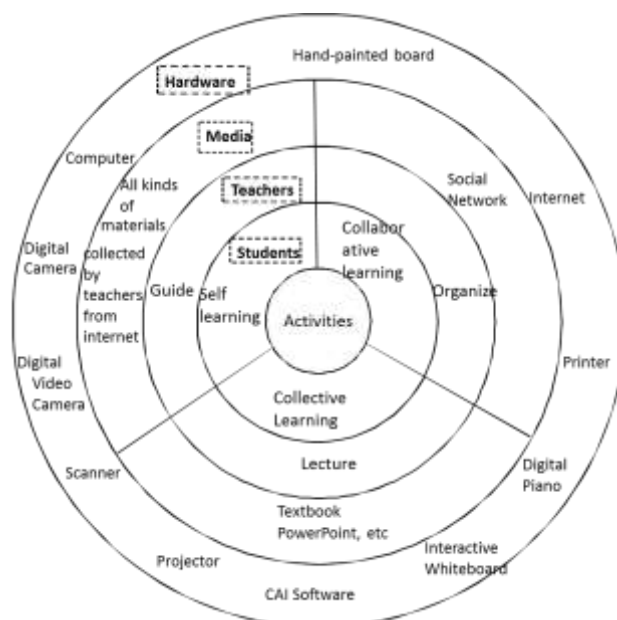


Figure 5. Environments for multimedia activities

## Conclusion and further work

This paper focuses on the students' activities design, combining online moral discussion with traditional classroom IT courses, with blended learning theory. Students learn to understand each other better and live to be together in this new virtual world by participating activities merging basic information literacy with skills and theory of IT.

These activities designed and put into practice are only for the multimedia part. Activities combining other fields of IT should also be designed. Furthermore, now, the online activities are using the social network sites, such as Facebook or Renren, which is not specially designed for education, and demanding certain degree of technical proficiency. The necessity of developing a unified supporting environment is open to discuss.

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Ma Jing, an IT course teacher from The Experimental High School Attached to Beijing Normal University in China, now is studying as a teacher training student in Tokyo Gakugei University in Japan. Her research is focus on the comparison of IT education in Japan and China, especially improving moral education in IT course.