

# **Intellectual Property and Information Security in Digital and Open Distance Learning**

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## **Abstract**

“Knowledge Society” as explained by Daniel Bell’s sociological analysis is a social form whereby intellectual resources of information knowledge have economic values following post-industrial development. This social Phenomenon cause us serious information gaps bringing by computer technology, so in this knowledge society qualitative improvement of learning contents in the field of lifelong education of adults is important with field of school education using information technology such as computers and satellite communication is extremely effective means, and I think it is necessary to teach for every learners not only how to use the operation of technology but also how to appreciate your life using with the knowledge of critical viewing and reading skills, the information for global regulations and ethics of information digital society and should be to select the quality of software of information contents. Because there are so many problems of piracy of copyrights, rims of the international junk mails and information security problems in nowadays.

Therefore it is necessary the arrangement of international legalities environment such as intellectual property rights or copyright goods globally standards and ethics education in digital society. I practiced differences of a legal general idea of fair uses for educational materials and necessity of information security protection in the use of educational software. This article wants to accuse this information knowledge of ethics and security are necessary for the Open and Distance Learning that utilized information technology of a developing Asia region.

## **Preface**

In open and long distance learning of future digital age, qualitative improvement of learning contents in the field of not only school education but also adult education is so important for us. Using information technology such as computers, it is extremely effective communication means, and I think about a method of long distance education to develop the network of the world in modern society to globalize unless a learner can miss improvement of quality of software of contents for the mutual understanding in the global community.

Information interchange with various countries is given for us the learning information to globalize in the fields of both technology and humanism. Therefore we should get legal environment such as intellectual property right or copyright, information security protection and freedom of academic studies for global society, and it is necessary to drive information ethic education to school teachers and learners whom using via Internet to get information and learning materials.

I practiced educational sociology and educational technology and also how to keep balance between the necessity of information security protection and the freedom of speech and expression in the practical experience of Internet communication by the field of

Association of Japan Educational Media Study and Information Learning Center in Chiba prefecture.

The purpose of this article is pointed the necessity of international information exchange will be in near future and the arrangement of information security education for digital open distance learning system that is utilized information technology in Asian religion.

## **Cyber Ethics in Knowledge Society and Intellectual Property**

Information Society such as satellite broadcasting, telecommunications technology advances years by years. American sociologist Daniel Bell predicts that the richness of information realizes Knowledge Society for the development of economy and social income while it develops by innovation rapidly. By the spread of information technology with innovation, the monopoly system of information is over, and it is the theoretical core of Daniel Bell that is the democratization of information resource advances more. However reform such as information policy arrangement, information education advance and intellectual property laws is necessary to develop the democratization of information for society of citizenship.

It is reliable to be influential means for it is done immediately as possible democratic and equally to offer it to the nations of Asian religion expecting education of all by means of open and distance learning. In an Asian religion such as Japan, Korea, China, India, Indonesia, Malaysia, Thailand, Philippine and so on, we had same experience of the open university about many learning applicant of a lot of requests such as needs for high technology, social sciences, humanities, educational sciences to date for university level, from 1970's to now by using the educational broadcast system and

telecommunication technology to bring up the human resources that it was necessary for construction of developing countries. Now we had known main tools of educational technology would be changed from broadcasting one way system to personal computer by means of two way system with Internet communication in open distance learning near future. But Internet communication age will be accessed the problem of information security and intellectual property affairs years by years.

Needs of more qualitative educational materials and curriculums for all which a learning text and teaching software raise intellectual interests and way of easy understanding is so difficult but if international cooperation is available it is not dream in future. It is necessary to study and master the digital skills and way of international communication as information literacy for learner to utilize educational media. Therefore it is international exchange of technical know-how for high level teaching material production that is necessary to get effective environment of law such as intellectual property and copyright.

In law, intellectual property (IP) is an important term for various legal rights which attach to certain name of copyright, industrial interest, right of design, right of publishing and right of presentation and so on with written and recorded media. The term intellectual property reflects the idea that this subject matter is product the mind and cultural heritage said from Wikipedia, the free computer encyclopedia.

Intellectual property Act is different as each country jurisdiction and there are inter-governmental efforts to harmonize them through international treaties such as the 1994 World Trade Organization (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights, while other treaties may facilitate registration in more than one jurisdiction at a time.

In many countries of Asian religion, Copyright Act is not yet got ready a Act of Intellectual Property as an important law over a open and distance learning in particular.

We guarantee life of people related art, science, technology and it is effective in raising creation will to keep intellectual property by Copyright Act. An object of copyright tends a recipe or costume design to be protected as property of intellect as folk literature, poetry, handicraft, traditional picture and sculpture, the life art and technology that accepted the condition of each country as well as Europe altitude recently.

But some copyright holder demand only economic profit and demand an unreasonable rate and it might stagnant a nation and duties of education of social public welfare when we strengthen rights such as copyright holders. In Global Society, by a rule of an international copyright again some developed nations will be getting profit more, and there is worry to delay the development of culture and technology of developing country.

Therefore I want to report it in USA and Japan comparison about an exclusion matter of copyright that it is necessary and a principle of freedom use for an ideal method of Copyright Act in global community and the national development of Fair Uses by an educational purpose.

It is an opening history to send an observer of Japanese Government to Swiss Bern international copyright meeting in 1896 and to push forward the national modernization and globalization after the Meiji Revolution. European countries were the center, and Japan and India and Asian countries and USA participated in Bern. Even if a copyright holder of principle of no registration did not register European countries and Japan by law, we asked everybody a method having

right. Japan joined Bern international copyright treaty with European countries in 1899.

USA participated in a meeting first but they claim a copyright holder registered a right with government and enforced an effectiveness of the name of Pan American International Copyright Treaty against the principle of no registration.

When “Copyright Act contribute to a nation and development of culture as well as profit of a copyright holder” in USA and Japan, we decided a purpose of the law is almost same but detail is different each other.

In Japan Copyright Act, it excludes of right of an author as right restrictions of a copyright if necessary for public and education.

An individual is home and, for a personal purpose, permission of copy tapes and pictures, broadcasts, a lecture, music with reproduction machinery for the public, is allowed in Article 30, that we release recording recognized.

However, because an original and quality of reproduction do not change when it is digital machine parts by innovation and tapes it and record it, a maker of machinery pay money of levy.

With Article 31, a user allowed to reproduce it to one part one person in public library for educational uses.

When we quote the sentence that a user was announced by educational use or an article writing as for Article 32, we use it freely if we state the source clearly and can criticize it.

We can use the programs of school broadcast, radio, cable TV,

Internet for educational use with Article 34 freely if we pay appropriate expense.

With Article 35, we can reproduce a publishing and the teaching materials in the range that is in a classroom in educational institution.

USA Copyright Act is described a “Fair Uses” right of news, education, criticism, Fair Uses for public interest for the social welfare as a right exclusion matter with Article 197 collectively without detail subscriptions like Japanese Copyright Act compared with American Act finely.

In US this right is subject to certain limitations found in sections 107 through 108 of the US Copy right Act such as “Fair Uses”. US section 107 contains a list of various purposes for which the production of a particular work may be Fair Uses, such as criticism, comment, news, reporting, teaching, scholarship and research. Section 107 also sets out four factors to be considered in determination whether or not particular use is fair.

- (1) The purpose and character of the use is non profit educational purpose or not.
- (2) The nature of the copyrighted work is for public and educational uses or not.
- (3) The amount and substantiality of the copy work is not damage for the balance of copyright owner or not.
- (4) The effect of the use upon the potential market for or value of copyright is rightness or not.

I think this consideration of fair uses is so effective to promote the open distance educational material production, teachers and learners.

In Japanese Copy right act is admitted the limitation rights for public and educational purposes as purposes for personal uses in education and culture and for public libraries and quotation uses for reporting or education, Radio and TV programs for school education, for handicapped uses a News reporting programs and so on. Both countries are almost same limitation for fair uses in intellectual property right.

Another point of view it is it with a problem in each country that is dark side of knowledge society damaging spume mail, fraud, defame of honor, right of humanity, property of another person production recently because it is education pushed forward in aerial space bound together by an internet technology and continuous an international information crime distributing wrong bad information.

## **The Education System for Japanese Information Security Policy**

It is possible technically to offer high standard learning information to the applicant through the media of a site of Internet, new function of the mobile telephone and satellite system. Internet, the mobile telephone and telecommunication are tools of communication that is convenient for daily lives, and however we are rolled up in troubles such as many unwanted e- mail so called spume mail or junk mail, being washed away of personal information, a fraud case of fiction requests by new information media. A target and crime of the vicious information security that is occurrence with the indefinite correspondence course students learning it in information media as a new crime recently, and policy and education to defend by oneself are necessary with the actual situation of an information crime to a teacher and a student as correspondence school to it.



Ministry of Education, Culture and Sports, Science and Technology leads it in Japan and many education groups related to information education and electronic industry groups, NPO, Association of Cable TV and Broadcasting are cooperated and carried out “e- Caravan Movement” such as mobile educational function and adult education. e- Caravan Movement consists of representatives such as Associations of Multimedia Groups, universities, vocational schools and helps a lecture, briefing session, guidance of a usage of an information appliance, copyright and information security problem workshop as publicity works.

Japanese government is presented their public information homepage of Ministry of Public Management, Post and Telecommunications and public access for primary school, junior high school teachers and students, university students show instructions for information security to adult members of society, housewives and rouse attention to an information crime.

For examples an anti-information security measure for primary and junior high school is follows; (1) protect information of attention for oneself by oneself in mischief (2) protect personal information by yourself (3) privacy in the handling of anything (4) malice of computer virus (5) chain mail with degree of fear and do not say bad things about others behind their backs.

In general adults and university students, the danger of the use of file sharing software, the wiretapping damage of wireless LAN, an invasion of copyright, danger of a fraud, cheat of a vicious examination, cheat of qualification for bait other and a trap of an electronic shopping site, a crime of a bank finance, injustice access to anti-morality software, spume and junk mail how to protect freedom of speech and expression for democratic society are added.

In the Japan private university information association where I belong to from 2000, it is showed for every members about standard plan” Information ethic rule model for network system use” and saying model plan are simple and easy, and to be it every university.

Contents of a model idea of “Information Ethic Rule for Network System Use” consist of Article 9. For Article 1, as for “Purpose of Information Ethic Rule”, Article 2, as for “Definition of Information Law and a Computer Term” is Article 3.

As for “The matter of that they should protect in the system use” is Article 4, as for “The operative rule and self-responsibility of an information system user, Article 5. “The Intellectual property, the protection of information security law and the penalty regulation of internet connection”. Article 6 is “Correspondence method for a problem and illegal act that a university applying a network system should warn” and Article 7 is “The Procedure of administrative rules such as management for an illegal act in university”. Article 8 is “How to do the counseling for the problems of information security and the freedom of expression and the last Article 9 is “Miscellaneous matters”.

At almost Japanese university, it was set each “The Information Ethic Rule for Network Use” that seems to be statement above at national and private university also carrying out the information education by their professor faculty meeting now and observe it. However each university curriculum is different from contents of information ethics by the fact of university conditions, and time suffers to be standardized, and it is fact that some students and production for educational materials whom we cannot observe even if we make a rule could not obey law environment and a continuous effort is necessary for the whole so that an information ethic is through until near future.

We carry out information security workshop in each year “ How you can go ahead through information security policy in your school and university” to professors, teachers, officers, workers voluntary about copyright law, protection for personal information law, unauthorized computer access law is performed with information technology.

Because the information security problems are enlarged it years by years with earth scale, as for an effect does not stop even if they educate an information ethic not only in one country but also all countries to do international cooperation with scale of the earth and that is the task of global project in future.

### **The Freedom of Speech and Expression for Self-Organization System and Gatekeeper Function in Feedback Communication**

The Freedom of speech and expression for Self-Organization system is so important for the development of the open and distance learning in Asian religion. Because Japanese sociologist Prof. Takatoshi Imada in Tokyo Institute of Industrial Studies said the Self-Organization system are effective way of thinking for the establishment of democratic and independence to keep with wholesome individualism and we are consisted the existence of global society in each responsibilities.

By the theory of communication model, we are involved with 3 parts of communication elements such as the sender and media contents and the receiver. Each element is reversible and feedback communication is available. In this channel feedback communication is certificated with the gatekeeper function for selection of good information and not good ones. The meaning of gatekeeper by sociology is how to select the qualitative and effective information

from the flood of communication and rich resources of knowledge. When someone want to read the good book effectively, it is necessary for the experience or knowledge of this field or cooperation with suggestion with guidebook or opinion by pioneer.

Anyway if we think about the conception of gatekeeper, it is related to keep the good common sense and good arranged environment of educational materials.

Prof. Touru Nishigaki of Tokyo University pointed it in his book named "The Role of the Mind in Information Studies" that Self-Organization System comes from the frame of new psychological theory of "Autopoiesis and Cognition" by Humbert Maturana and Francisco Valera referring with human mind which is self control system in biological function in natural environment. Autopoiesis and Cognition system in human mind is reflected with autonomy of self-organization in human being with audio visual and feeling against environmental change. The protection of information security and information maintenance is thought some kind of reaction against the stress of outside change or the stimulus of feedback system in the development of revolution for information centered society.

Freedom of speech and expression is so important for development of open and distance learning in Asian religion. In Japan we have the freedom of speech and expression is supported by national constitution and every members of school and university are protected his free teaching and communication and studies in this frame of reference by the limit of legal regulation.

From 2000 to now our Prime Minister who was a Japanese political leader Mr. Mori, Mr. Koizumi, Mr. Abe and current Prime Minister Fukuda, they promoted an IT (Information Technology) national plan together. As the policy, "Basic personal computer operation

method to all” is volunteer class for citizen of information technology in almost local cities, towns and villages. However it is hard to study for many peoples it because an applicant who had job or work could attend it, and only around 20% of adult still quite participate in this class. There are many men among adults in gender and generation gap, and a class participant of a woman and old age are under 10%. So Information gap between gender and generation is still continued in our countries. But school information is succeeded that a student of high school is 95%, junior high school is 80% and elementary school is 70% had experienced with computer assisted education now in spite of financial difficulties.

However, even if Internet becomes usable by information learning freely in school, it cannot said, and as for the education to relate the safety of information security and the good information attitude. Internet still tends enough some young generation such as junior high school students particularly access immoral fraudulent bad information to meet the damage.

It is to make an education purpose “whom is information to serve it to for what” clear that it is necessary when we think about an anti-information security measure in information education. The purpose of information education is not only appearing to find good job for getting career and to get high income. Through information education, we serve that supporting the development of economy, culture and society are information-oriented and help that our knowledge develops a living of a community. For a leader of school education and adult education, that making good information policy clear is demanded from a learner.

In a purpose of information policy in a university, it is helped the development of an academic freedom and studies freely, and there is the university which it is specified particularly developing a community and a nation it wealthily.

A child and student, an adult learner is aware of purpose of information education more, and we want to hope that learning hard at next generation Open and Distance Learning.

## **Recommendation**

In order to cut loose the mutual distrust and incredulity between government, administration and head of schools and universities and public adults, teachers and learners the rules of Internet users about qualitative communication should be clarified, and a fair information gate keeper or editor is required. The Internet fair information gate keeper or editor such as good common sense leader in citizenship should become neither of the participant allies, but should keep a neutral position in the selection function of information gate keeper for chat forum freely. The quality control in individual web-sites is so important role of communication development.

So first, the information democratization by Internet freely should be legal infrastructure for the improvement in economical and cultural development of national policy.

2<sup>nd</sup> is the Fair Uses of copyright and policy of information security are so important consideration with open and long distance learning system in developing countries.

3<sup>rd</sup> is it should be understood by people that media democracy is useful economical and cultural development of educational progress and social welfare and the freedom of speech and expression should be in intelligence infrastructure in Internet communication and substantial in equipment of computer server, personal computer terminal and etc.

4<sup>th</sup> is the international cooperation of new environment which liberalized communication with overseas countries by Internet, interchange information freely, and carry out mutual study internationally is required.

5<sup>th</sup> is arrangement and research of new legal environment which is related with intellectual property, information security and protection of personal information are required.

6<sup>th</sup> is advancing active volunteer organizations which are citizen activities of community such as NPO and NGO. The connection organization which summarize a national educational authority and local government between citizen and school and university students by Internet is required.

7<sup>th</sup> is an "Information Ethic Rule for Network System" in each computer server keepers and each schools and universities by next generation open and distance learning.

Furthermore, rightness of legal environment of prevention of information crime and illegal affairs for Internet is fixed. In order that jamming by hacker, defamation and copyright problems may decrease years by years, we would like to gratitude to INDLA secretariat and ASSIAN academic associations for the chance of my speech in this beautiful seaside Bali.

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