Chinese Ethics in Communication, Collaboration, and Digitalization in the Digital Age

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ABSTRACT

This paper focuses on the discussion of ethical issues in communication, collaboration, and digitalization among scholars in the humanities, social sciences, natural science, and engineering. Government-supported digitalization initiatives with high prior expectations have motivated scholars to work together. Often, after several years' collaboration, the sweet dream becomes bitter to scholars as ethical problems become critical and annoying. This is obviously an important issue for everyone who will face these problems in managing research data in digital form with help from technical experts. In this paper, three typical examples of ethical issues raised in the digital age are depicted (anonymously for protection of those involved).

The paper begins with a brief introduction to Chinese ethics, and then points out major differences in ethical concepts between Western and Chinese society. Chinese ethics focuses on people's relationships and the distances in these relationships. The authors recommend the rethinking of the concepts of Chinese ethics as part of the discussion of communication ethics in general. Taking into concern thinking about virtual reality and communication ethics, we believe this can provide a useful additional approach to understanding the ethical problems raised by information technology.

Since 1997, digitalization of library collections, museum collections and archives has become a goal which has gathered people from the academic community in many countries. With support from governments and institutions, scholars and researchers in humanities and in information science/technology have begun to work together on the digitalization of cultural collections and archives. This is a totally new task for everyone, especially for those who have never ventured out of their own ivory towers. Moreover, the outcome of their cooperative work will be very different from that of traditional scholarly projects. As McLuhan said, the medium is the message. "The world of knowledge is changing while information is digitalized because the form and the content of information are changed," according to Ching-chun Hsieh. [1]

Ching-chun Hsieh, an information researcher, said in his lectures to scholars at Peking University, (and also to academics in Taiwan, Japan and the United States) many years ago[2], "the medium is changed, therefore, the way of collecting, storing, preserving and presenting data/papers/ideas is also revolutionarily changed…. And, the knowledge after people's collecting, storing, preserving and presenting, is going to be changed." To scholars in the humanities, this change is going to be a long nightmare if they are not aware of or are not ready for the rapidly developing digital world[3]. This is much more obvious in Chinese studies than in other fields[4].

This paper is based on the experience of the National Digital Archives Program (NDAP) and the National Digital Museum Project in the Republic of China in Taiwan, and also on a study of "Communication, Collaboration, and Digitalization." (Hsieh, 2001) It focuses on intercultural ethical aspects of collaboration, digitalization, virtual reality and communication. Some of the ethical issues have not occurred before; certainly with the advent of the digital world these

concepts of Chinese ethics have had to be applied in new contexts to clarify the confusion between the real and cyber worlds.

It is interesting to note that people involved in those digitalization projects are heavily influenced by their mother culture no matter what their academic training or backgrounds. At the beginning, most Chinese scholars with western higher degrees in Taiwan do have different attitudes from their fellows without western degrees toward communication and collaboration while doing digitalization of their work. Subsequently, they began to deal with their colleagues in a Chinese manner. However, there are also some conflicts of interest in information ethics which arise between scholars in humanities and technical people involved with information technology in Taiwan, and also between scholars from China and the United States involved in international collaboration.

In many cases, Chinese scholars with or without western higher degrees hold the same attitudes derived from Chinese concepts toward information ethics in collaboration and digitalization. However, the concepts of Chinese ethics are often confused by those Chinese scholars who are involved in collaboration with western scholars in digitalization. In short, Chinese people look at *ethics* as the relationship between people according to the distance of their relations, such as father and son, husband and wife, brothers and sisters, teachers and students, or bosses and employees. On the other hand western scholars deal with information ethics mainly based on the actions or work involved, using contracts to clarify copyright, loyalty, and intellectual property rights.

The Concept of Chinese Ethics

There is no exact equivalent in Chinese to the English word 'ethics.' The Western concept of ethics in Chinese thought has two related but not identical equivalents: moral codes, and

normal relationships among people (involving comparison, classification, and order), conveyed by the term *lun li*.[5] Traditionally, 'ethics' is translated as *lun li* in Chinese, with the context of moral codes then applied in discussions by most scholars. This paper will follow this approach to discussion of communication ethics.

Chinese ethics were mainly developed and elaborated by Confucius, the Chinese classic philosopher in the early 6th century BC, and his followers. Confucius was especially concerned with *jen*, which was discussed extensively in his *Dialogues* (*Lun Yu*). This Chinese character carries the meaning of "the relationship between an individual and others."   *Jen* has the additional meanings of "benevolence," "humanity," "mercy," "charity," "magnanimity," and "kindness," also often including the meaning of "to be philanthropic," "love," "love and justice," and "benevolence and generosity."

In theory, Chinese ethics not only includes the relationships between people, but also relationships with heaven, divinities, and nature. The Chinese have always been told to respect the *Five Superiors*, i.e. heaven, earth, the king, parents, and mentor/teachers, and also to live according to the *Five Ethics*, which are between sovereign and subjects, between parents and children, between husband and wife, among brothers and sisters, and among friends. In the context of Chinese ethics, the *Five Superiors* and *Five Ethics* are the basic concepts as guidance for people to live in society.

These concepts are most succinctly expressed in the *Doctrine of the Mean* (*Chung Yung)*, one of the four basic sourcebooks for Confucian philosophy. The *Five Ethics* are considered a detailed guide for all Chinese, including emperors and intellectuals. The *Doctrine of the Mean* is an extract from the longer classic on ethics the *Li Chi*, which is concerned with the manners and rules of conduct between people, and between human beings and all other beings in the world,

including the relationship between human beings and nature, gods, ghosts, and ancestral spirits. The book gives detailed guidelines with rationales about ethics.

In ancient time, the Chinese paid much attention to ethics because they believed that ethics were the cornerstone for building and ordering a functioning society. For instance, it is said, "there is no difference between human beings and animals if a person is without ethics" (Confucius: *Analects*). The most important value in Chinese culture has been *hsiao*, meaning filial piety or devotion to parents, to which one of the thirteen traditional Confucian classics, the *Hsiao Ching* (*Classic of Filial Piety*), is entirely devoted. Every Chinese is educated to respect and to take care of his parents in his lifetime. He would be publicly scorned with the proverbial expression as "a son without *hsiao*" if he did not take good care of his parents while alive. In such cases, an unethical person would be severely punished not by law but by social pressure, similar to ex-communication or the practice of shunning in the West. Nowadays, based on the content of mass media in Taiwan and China, this is still true for the most part in Chinese society. Ethical concerns still take priority over legal concerns, in all cases, for all levels of educational background, and in all arenas. In other word, the ethics of ancient China are still followed by modern Chinese.

In Chinese culture, the core of ethics is the relationship between people. The relationship begins with the individual, who should always obey the social rules and requirements inherited from his ancestors. The individual stands in the center; the first and closest circle around him is his family, the second circle is his village or community, the third is his country, then the world, nature, and heaven. In this system, a Chinese is always very concerned about his parents, brothers, sisters, grandparents, uncles and aunts and other relatives, since these people are in the closest circle of human relationships to the individual. This is reflected in the Chinese language,

which has an extensive vocabulary of specific kinship terms which have no equivalents in English (or other European languages). For example, nouns such as *hsiung* (elder brother), *di* (younger brother), *chieh* (elder sister), *mei* (younger sister), *po* (father's elder brother), *shu* (father's younger brother), *chiu* (mother's brother), *yi* (mother's sister), *ku* (father's sister), *sao* (wife of elder brother), or verbs as *hsiao* (filial piety or devotion), *t'i* (show brotherly, sisterly love), and so on.   All of these words show how the relationship between people is exactly defined and differentiated depending on the distance and nature of the relationship.   In modern western culture, this concept of ethics except perhaps for relationships between spouses and to a lesser extent parents and children, is much less developed.

The Practice of Chinese Ethics

Confucius said, "educating oneself well, taking good care of families, managing the people in harmony, and then ruling the world in peace"(*Analects*). This is a central concept. From this saying, Chinese ethics start from the 'self,' with the individual's morality first, then extend to relationships with others. Confucius also said, "You cannot help people unless you can help yourself first, and you will be able to get to people after you get to yourself" (*Analects*). This idea also moves from an individual to his family, his community, his country, and the world.   In Confucian philosophy, ethics addresses the individual and his relationships with others, but also includes the practice of ethics in society.[6] In other words, one's ethics are not only for the individual's guidance in order to live with others, but also as society's norm to ensure that society runs harmoniously.

While talking about *li*, the Chinese term usually translated as benefit or profits, Confucius recommended that it be looked at from relational or affective in preference to rational, and legal aspects. For instance, in the case of a father's criminal behavior, Confucius asserted that the son

should not go to the police to report that his father had stolen a cow. Instead he should convince his father to return the stolen cow to the owner. Confucius said that the son should never turn in his father. Otherwise, if the father went to jail, the entire family would be in a miserable situation due to losing its breadwinner. It is also would be of no help to the victim, since the damage from stealing the cow would continue. The better way to handle it would be to return the cow. Then, everyone in the case would be satisfied, saving everyone's time and money. In this case, relational and affective concerns get first priority, rational second, and legal concerns last. This example is a typical case of differences between Chinese ethics and Western ethics. Even nowadays, Chinese people prefer to solve problems through the mediation of relatives, friends or related people from both sides, rather than by suing each other in court.

A contemporary Chinese anthropologist, Professor Fe, called the *Five Ethics* in Chinese culture the 'gradient relationships.' (Fe, 1948, p.22). He pointed out that the self-centered concern as the first priority in Chinese culture is the source of a non-ethical value system toward organizations or groups. If there is a conflict of interest, human relationship take first priority. Therefore, groups or organization with no intimate relationships with the individual always get less consideration. This issue, with respect to its impact on public service, has been discussed for over 2000 years. For example, those who argue from a national viewpoint maintain that if a soldier dies for his country in war, his sacrifice is called 'Big Loyalty' to his country, and should also be considered as 'Big Hsiao' to his parents, though he can not take care of his parents any more. In this case, his country is recommended as the soldier's first concern instead of his parents – an argument which was historically not well accepted in Chinese society.

Information Ethics

 As previously discussed, there is a drastic change occurring caused by information technology (IT) and the resulting information age. The globalization of communication, with the overwhelming application of IT has made the world become small (what McLuhan called a 'global village') which means much closer relationship between different jobs, more dependence between disciplines and between nations. In this case, IT pushes people to rethink the dimensions of ethics in the information age (Hsieh, 1992).

According to Mason (1991), privacy, accuracy, property, and access are the four aspects of information ethics. In other words, digitalized content over the Internet raises questions of privacy, accuracy, property, and access, which are frequently discussed in communication ethics. Although these four aspects of information ethics have been applied to Information Act/Laws in many countries, there are still conflicts and ambiguities, especially in communication, collaboration and digitalization, in domestic and international arena.

In theory, in the information age, privacy deals with the issues of free speech, free expression in the public sphere and anonymity, and is also related to the media's social responsibility. The accuracy issue means information integrity, which includes accuracy, precision, timing and appropriateness (in form and quantity). Intellectual property rights, ownership, control and information sharing are the main topics of property issue. Fair use, equal distribution, equal access for everyone comprises the access issue of information.

In practice, all of the four aspects have some degrees of difference in different cultures and different societies. There is no one universal standard even for transnational companies. Most Chinese scholars are like the famous ancient poet, Dong-po Su, and would like to share their knowledge freely with everyone. Su had the idea more than a thousand years ago that

knowledge is like moonlight and the breeze over the river, which should be freely shared by all the people, old and young, rich and poor, intellectuals and the illiterate. Ching-chun Hsieh has promoted this idea to scholars in Chinese studies and library science since doing the 25-dynasties history full-text database in the early 1980s (Hsieh, 1987). The idea of information sharing in Chinese studies has now been widely adopted by scholars around the world. They believe that although the Chinese heritage is collected and stored by different institutions, different countries, and scattered in many places, the heritage should belong to the mankind. With this consensus, scholars in Chinese studies officially have launched several collaboration projects for digitalization since 1997. In fact, the informal and small-scale collaboration with scholars and institutions began much earlier, in the late 1980s.

Communication, Collaboration, and Digitalization

The greatest enterprise of the mind has always been and always will be the attempt linkage of the science and humanities. (Wilson, 1998, p.8)

Digitalization is a high technology, resisted by traditionalists in the academic community everywhere, but also with an overwhelming power to push scholars, researchers and professors to face a changing environment such as has never happened in their lifetimes. This involves cooperating and communicating with others from outside of their own community, including with those whom they barely know. For those who feel comfortable in their own working environment, the globalization and virtual world created by the Internet pushes them to open or to venture out of their ivory towers. In this situation, communication among people in the academic community has become much more important than before.

From innovation theory (Rogers, 1971), we know that in a traditional society, laggards such as farmers and workers could still survive the change process. No one knows whether this

is true in an information society, especially in the academic community, where not only survival but also professional dignity and respect are necessary. From science communication theory (Snow, 1980), we know that people from the scientific (including technological) community and from the literary community have historically barely understand each other. In the coming information age, the two groups will have to communicate in order to help each other in their own work with the new media environment, combined with multi-media, multi-lingual and globalization, also with their own local culture.

With this background, the authors looked for suitable cases to study. Three cases since 1998 have been chosen for this study. They are from the University of California at Berkeley, the Institute for Research in Humanities at Kyoto University, and the Digital Museum Project of Academia Sinica (1998-1999).[7] The methods of participant observation, interviewing, questionnaire survey and content analysis were applied in the three-cases study.

In brief, when digitalization becomes the objective of an institution or organization or of a group of people, communication and collaboration occur in all settings (group meetings, formal meetings, seminars, conferences, within groups, between groups, domestic, international, etc.). Content holders, content experts, computer/internet experts and all others involved in the digitalized work communicate and collaborate with each other constantly and ubiquitously. In the three cases discussed below, interdisciplinary and multidisciplinary teams are the core loci of communication.

In the adoption process of digitalization, there is no significant difference between individuals among the three cases. But, there are different patterns of collaboration with different groups in the three cases. The two cultures' syndrome exists in all three cases regardless of the underlying national culture. In other words, although all of the participants

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realize that it is important to share information and to communicate with each other in the information age, there are communications problems or differences between technical people and literary people.

In short, communication plays a key role in all three cases of digitalization. The term "communication" used here, interpreted as communication pattern, also can be considered as culture. People play the second most important role in the digitalization process. Timing (and time pressure) is the third key role.

In Chinese culture, the key to progress is to find the right person, both in terms of competence and also in terms of having the support and the authority to get things done. Examples from a previous major scholarly project, the translation of Buddhist texts into Chinese, include the two best known and most prolific translators: Kumarajiva (AD 344-413) and Hsüan Tsang (AD 596-664) (Chen, 1964). Both were themselves superbly qualified, but more importantly, each received extensive financial and personnel support from the imperial governments of their day to set up translation organizations. In both cases, the timing was clearly right. The Digital Museum project in Taiwan is a modern analogue to this case.

Ethical Issues in Communication, Collaboration, and Digitalization

Intellectual property rights, copyright, loyalties, financial issues, and professional courtesy are the ethical issues raised by these projects of collaboration, and digitalization. In Chinese history, intellectual property rights and copyright were not clear-cut in the terms that we understand them today. In most cases, it was a matter not of rights but of professional courtesy such as with acknowledgement or citation. Inclusion of verbatim selections from earlier works is common in classical Chinese works, as are shorter selections in the form of allusions. Even in the 21st century, among Chinese scholars and professors, there is not the same professional

obligation to keep detailed records of all the sources as exists in the West. Ethical issues in the Western sense have often not been taught or emphasized in Chinese classes on research methods.

This does not mean that the Chinese do not care about copyright, intellectual property and creative work. Rather, it comes from traditional notions of what is ethically appropriate behavior for (high class) scholars as opposed to (low class) merchants. The Chinese have always had immense respect for knowledge and intellectuals. Since earliest times, educated people have been given the highest social esteem, coupled with an obligation to use their knowledge to serve society. However, in the traditional class system, this respect meant that educated people were not expected to care much about money or income, since they would be supported by family, community, and state. This has meant that the practice of selling knowledge for private gain has traditionally been considered immoral and beneath the dignity of a respectable person.

With this cultural background, it is easy to see that in cross-cultural collaboration and digitalization projects there may well arise disputes and debates related to ethics or to copyright law. The following three examples represent typical cases that are not addressed in most of the literature in information ethics. These three concern issues in intellectual property rights, as well as problems of access, but are more complicated than Mason's discussion of these issues. To preserve the privacy of the participants, the following discussion will use anonymous symbols instead of real names.

Example One (within the same culture)

X represents the researcher (simultaneously the IT developer), who has knowledge of the content and is also familiar with the technology of digitalization.

Y represents the content holder(s), who has/have knowledge of the collections and archives, but no knowledge of the technique of IT, and also no idea of the impact of digitalization on the cultural collections.

Z represents a reviewer of the research project.

X, Y, and Z live in the same culture, but X and Z hold advanced degrees from western countries, and also have much more experience dealing with people from western culture than does Y.

The story is:

X wanted to join a national digital project by doing a digitalization of Y's collections and archives. X is a scholar in a field related to Y's holdings and has been involved in digitalization since 1997. X and Y have known each other for years. Therefore, Y agreed to let X digitalize his collections. In this case, there were no issues between X and Y in the collaboration. But, Z (the reviewer) questioned whether this project proposed by X involved ethical issues, and therefore was reluctant to approve X's application.

Z thought that X took advantage of Y's lack of familiarity with digitalization. Y might not have been able to catch up with the technology even if he were able to learn from X. There would always be a risk of an information gap, or even a digital divide between X and Y. In most of the other projects such as that of the National Palace Museum, researchers are not only the content holders but also the IT developers.

It seems that Z wanted to protect Y (the content holder) because there was no better solution to the intellectual property rights questions which would arise from the digitalization of these collections. But, in the long run, someone else eventually would digitalize Y's holdings. Z's worry would still be relevant if Y did not become a sophisticated IT developer.

The controversy is still going on.

Example Two (within the same culture)

V represents a scholar who is leading a research team in a research-oriented institution with full technical support from the institution's computing center. V is an expert in the content area, and has the exclusively authorized copyright to use the content for digitalization. He also has had a series of grants to support his research. Although he received his Ph. D. from a distinguished American private university, V is much in the mold of a classical Chinese scholar

W represents the IT developer, who was assigned to help V at the beginning of the digitalization project. He has some knowledge of digitalization, but does not have much knowledge about the content. W has neither a western higher degree nor had experience dealing with western people prior to doing the digitalization for V.

The story is:

V had been working on the content as well as collecting valuable related data for years. W was an engineer working as a data manager at the computing center, with periodic assignments to help scholars from different fields in the institution. The role of the computing center at the institution mainly was as a service provider. In this setting, W's normal job was doing maintenance and the provision of routine service. In addition, W had been officially assigned to help V to digitize his holdings.

From the beginning of the collaboration in 1998 until early 2001, V and W worked well together as a team, for they concentrated on learning from each other, with much attention to communication and collaboration on how to do the digitalization

V and W had always worked together while presenting papers or reports in meetings and conferences, both domestically and internationally. Both were named as co-authors on papers.

V had been the first author (and had presented the major idea and content), while W had been the second author (and had done the technical presentations and demonstrations).

On the surface, it appeared that their work was divided into two separate parts: the content and the digital product. In fact, as a result of digitalization, the knowledge associated with the original content has evolved as new post-digitalization knowledge. This impacted the relationship between V and W, since as a result, although each was conscious of his weakness in terms of either technical or domain knowledge, V and W could each demonstrate or present their work alone, without the other's presence. However, when W presented their joint work without V's consent or presence, V felt very uncomfortable and unhappy with this situation, because he felt that the whole research was supposed to be under his leadership, and depended on his academic expertise. V insisted that W had been an assistant, basically a technician in his project for years. He is insistent that W is not qualified in the domain (content) knowledge. From V's standpoint, W has misappropriated his property (knowledge), and is stealing his fame from this pioneer research. On the other hand, W does not know about V's anger and concern because V usually reacts very politely and indirectly as one would expect of a traditional Chinese scholar.

The conflict between V and W is not simply a communication problem, instead it is a typical case of disputes arising from the creation of new intellectual property which results from the digital transformation of knowledge. The knowledge/property is not like the chapters in a book by different authors, nor like a device collaboratively invented by a group or a team sharing common loyalties. Rather, it is a new type of knowledge providing the possibilities of newly available perspectives, and with much future potential. The people who create the knowledge also change as they work with it.

In this story, V and W are facing this sort of changing working relationship with, as yet, no resolution. There are several similar examples under study.

Example Three (within a multi-culture setting)

A represents a research group and is both an IT developer familiar with the technology of digitalization, and also has content knowledge. The group has financial support to do digitalization.

B represents another research group and again is both an IT developer familiar with the technology of digitalization, and also has content knowledge. The group also has financial support to do digitalization.

C represents an institution , which is the content holder, and has expertise in the original collections and archives, and some knowledge about the technology of digitalization, but without financial support for digitization.

D is basically a broker who wants to control the distribution of digitalized materials by contract in the name of a non-profit organization. He has no data and no technological expertise, but is familiar with the content knowledge.

A and C both live in a Chinese cultural environment.

The story is:

A, B, C and D are an inner core of a research area, located in different countries. They have become much closer than would have been the case for traditional scholarship, since the extra work of digitalization has brought them together. A, B and C have been working on digitalization for a several years, mainly in terms of the metadata of the data and holdings. In addition to the domain knowledge of their field, A and B are very sophisticated with IT and C has access to content holdings. A, B and D have had sufficient financial support to meet to share

the progress in the digitalization work at least twice a year. C has not been able to attend most of these meetings due to a shortage of travel funding.

Over the past two years, a major part of their digitalization work has been approaching the stage where it could be opened to and used by scholars and researchers. D has proposed initiating a cooperative organization contracted by D's institution to unite the work of A, B and C. Under this proposal, D would support A, B and C with appropriate funding to continue digitalization projects and with free access to the database. After the work was finished, the database would be freely available to all scholars or institutions in the world.

Free access would clearly be good for users. However, under this arrangement A, B and C's intellectual property rights would become ambiguous. A in particular was very displeased with D's role in this scenario. It appeared that D would end up controlling and owning the database and getting credit for the project having made no contribution to the contents and to the IT development except for a partial funding for B and C.

The dispute remains unsolved.

<u>Discussion of case studies</u>

In these three examples, Mason's concept of privacy, accuracy, property, and access do not seem to explain the disputes, controversies and bad feelings that scholars are facing as digitization changes the scholarly environment. The application of Chinese ethics to information can be helpful in solving the disputes and controversies which happen in cross-cultural and Chinese-cultural collaboration, especially in the case of intellectual property rights. In other words, issues of intellectual property rights or of access and professional loyalties involving collaboration by several parties in the preparation of digital data archives in the information age

might better be approached not from a legal aspect, but from Chinese concepts of fairness in relational ethics.

Other ethical issues

In the period when archaeological study was first developed from the 18th century through the mid 20th century, there were many sites whose artifacts were (in the modern view) pillaged by foreign collectors, and which are now in the possession of various libraries, museums or private collectors. These objects from our ancient heritages have been historically treated as private and exclusive goods, to which museums and private collectors have often restricted access. In the information age, the situation is changing. Digital data and archives created from the collections of libraries, museums, are like virtual goods, equivalent to the real goods in libraries and museums, but due to technology able to be easily and freely accessed by all. However, there are currently obstacles to digitalization, in that the required sophisticated information technology is not universal nor shared by every country. The "digital divide" between the developed countries and others has the same impact on access to the virtual goods of ancient heritages as did the sequestering of real goods in museums and collections.

In the new global technical environment, we will need to look at the ownership of information differently in order to avoid continual disputes and quarrelling. According to Chinese ethics, no matter whether the artifacts of ancient heritages are real goods or virtual goods, they are the records of human civilization which belong to all mankind, and should be made accessible in the public domain freely for everyone. All governments have a responsibility to bring this to pass. Henceforth, the reward mechanisms for information property and the concomitant problems in cyberspace should be studied carefully from a multi-cultural perspective.

Chinese Ethics in Cyberspace

'Virtual' meaning 'with the same function, the same utility,' comes interesting enough from the same Latin root as virtue. Virtual reality means a situation where the artificial object or objects, or settings have the same function and utility as do the real the real ones. Spoken and written languages are symbols to represent thoughts. To use a traditional example, from the standpoint of external reality, what languages describe is a virtual version of reality. Chinese tradition has approached the gap between linguistic and external reality from two perspectives. Taoist, and especially Buddhist thought have focused on the arbitrary and ultimately unreal nature of linguistic constructs. Confucianism on the other hand has focused on the ethical imperative to better align linguistic models with reality (known in Confucian thought as "rectification of names"). While in, theory there is no need to differentiate between reality and virtual reality, in practice, reality and virtual reality have always had some degrees of difference.

A salient difference in cyberspace is the way in which communication is changed with different settings and environments controlled by pseudo-characters. The history of human communication teaches us that oral communication and written communication are different from each other. Similarly, communication in cyberspace must be based on different assumptions from the old ones which we have become used to. In cyberspace, a real person can become virtual, and vice versa. How people react in cyberspace is similar to how they act in a play or a drama, or even to how they relate to the author or to the subjects while reading a novel. People do have different attitudes toward cyber space than toward their real life. In cyberspace, most people assume they can do anything as a pseudo-character without responsibility if their language or behavior should contravene law or ethics in the real world. That is why many suspects in cases of cyber crime confess they thought they were not breaking the law, in their

virtual roles. The rationale sounds logical at first glance.   However, as long as the deed itself hurts someone or does damages in real life, it is wrong no matter where it was carried out in cyberspace or in reality. Free thought is allowed in all kinds of communication, but actions and behaviors need to pay the price associated with their consequences. This is the philosophy of Chinese ethics.

According to Chinese ethics, to communicate with a real person in face or by writing will be different from the way one communicates with a virtual character over the Internet.   If the virtual character is a friend in the real world, then the relationship with a friend is the baseline. Otherwise, the relationship with a stranger (the virtual character) or other objects will be a totally different concern.

As previously discussed, Chinese ethics emphasizes social justice, fairness to everyone, and the harmony of human relationships in society. In the case of cyber crimes such as hackers' invasion of a database, this behavior has caused real damage, such as reading someone's personal files without their consent, stealing information constrained by a certain restriction, etc., regardless of whether the hackers remove anything from the database.   In real life, hackers violate people's privacy and also violate the rules of fair access by abusing their technological skill, in addition to making people feel uncomfortable, insecure, and worried. This harms the harmony and peace of a society. In terms of the Chinese concern with people and society, there is no doubt that such hackers' behavior is unethical even in cyberspace. Therefore, to protect and to respect everyone in the real world is a priority concern no matter whether they are being threatened by a real person or a virtual character.

Conclusion

In human society, people are assumed to be more or less rational beings. In traditional society, people interact with others in face-to-face communication. After the advent of mass media in modern society, the way of communication became multifold and much more complicated than traditionally. However, the principles of ethics are much the same, i.e., human dignity, social justice, reciprocity, free expression, equal distribution, assertion of cultural difference, and so on. In practice, ethical issues have always been ambiguous in different societies.

As previously said, in an information society, people face a totally new world, with new knowledge, new experience and new behavioral patterns. In this new culture, the ethical issues must be different from the old one, or at least have a different dimension in practice from the old. Mason's assertion of information ethics can be a place to start, however, all of his four ethical issues need to be subjected to careful further study, especially in the case of international collaboration among content holders, Internet developers and distributors.

In a global society which balances the demands both of local concerns and global concerns, we need to learn from multiple value systems. Western ethics and legal approaches by themselves are not sufficient to illuminate the problems caused by virtual characters on the Internet. Nor are they sufficient to help scholars from different cultures to collaborate in international digitalization projects. Intellectual dialogue should consider not only technical and disciplinary issues, but also philosophical reasoning about ethics as it impacts cyberspace and its side-effects. As professor Fe (2001) said, "I hope, 'Consilience but remaining diversity' will be a shared common ground while reconstructing humanities in the rapid developing technological society…. We must live together in peace, with collaboration to fulfill the work of reconstruction of humanities in using technology."[8] The authors propose that Chinese ethics

mainly suggest "consilience (Wilson 1998) of the real world and fairness and justice in a society are the supreme concern in human society," and can be another approach to study the problems occurring in the virtual world and the collaboration in digitalization.

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Notes

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[1] In the early 1980's, Dr. Hsieh was the first person to build a full-text database for the twenty-five dynasties history in Chinese. He was also the inventor of CCCII (Chinese Character Code for Information Interchange), which has been adopted and used by most of the East Asia libraries in the States, and also in Taiwan. In addition, he was the first person to lead the research project of National Digital Museum in Taiwan in 1998, and is now the director of the office for National Digital Archives Program (NDAP). He is well-known to scholars in Chinese studies in China, Taiwan, Japan, the United States, and the Great Britain, not only because of his pioneer studies of computerizing Chinese old texts but also because of his innovative ideas of information and digitalization.   Since 1997 he has been invited as a visiting professor and scholar to Peking University, Kyoto University, and University of California at Berkeley.

[2] ibid.

[3] According to a survey done by Internet Software Consortium in the year of 2001 (Kiiski and Pohjola, 2002, pp.297-298), "the internet domain name system indicates that in January 2001 there were 110 million computer hosts on the Internet." To compare to the year of 1991 in January, the number was only 376,000.

[5] Lian, S. C. (2000). (Ed.). *Far East English-Chinese, Chinese-English Dictionary.* Taipei: Far East Book Co.

[6] The former Minister of Finance, Lee, K. T., promoted a movement called "To Reinforce on the Sixth Ethics," which was focused on the relationship of an individual and his organization (society), a couple of years ago. But, his promotion did not gain much attention for many people believe the sixth ethics is included in the *Five Ethics*.

[7] Three key persons, Lewis Lancaster at UC Berkeley, Testuya Katsumura at Kyoto University, and Ching-chun Hsieh at Academia Sinica, helped to conduct this study.

[8] See detail in Fe, X. T. (2002, Oct. 8-10). "A retrospect to the 20th century and a foresight for the 21st century: the development of science and technology, and the reconstruction of humanities," a keynote speech delivered to the *Conference of Modernization and Chinese Culture*, held at National Library, Taipei, Taiwan, R. O. C.