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Ethical Dimensions of the Information Society

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ABSTRACT

Internet users' behaviors are dependent on their ethical dimensions. But ethics are quite relative concepts and they have dimensionality over culture, situation, and personal interests. Due to the various ethical dimensions, conflicts arise at an individual level, collective level, and societal level. In this paper, such ethical dimensions in the information society are discussed in the context of conflict dynamics, and how the conflicts affect our societies.

Keywords (Required)

Ethical dimension, conflict dynamics, cultural diversity, reference frame, freedom of expression, informed consent.

INTRODUCTION

In 2006, the UNESCO, in white papers at conferences held in Tunisia and Geneva, articulated the importance of ethics in the information society (http://www.unesco.org/wsis). In Action Line C10, information society was defined as "a sustainable development process of humanity that is conducted by evolving knowledge management, where society develops as a community of educated individuals and where the knowledge economy promotes a growing welfare level of the society and every individual (http://www.itu.int/wsis)." Also Action Line C10 manifests that there are basic values and principles to be enhanced in the information society; human rights, peace and democracy, free flow of information, freedom of expression, tolerance, cultural diversity, shared responsibility, solidarity, and informed consent (UNESCO, 2006).

While these principles are important in an information society, the following questions arise - is it possible to define absolutely ethical behaviors? Isn't it possible that unethical activities in one society can be ethical in another society? It is clear that ethics is a subjective and relative principle which is dependent on culture (Easton, 1996). For instance, there are some societies considering using some resources in the internet as unethical while other societies considering it as ethical. Ethics is said to be the projection of culture onto societies. Thus, if the diversity of culture and society is assumed, there cannot be homogenized ethical dimensions across individuals and societies.

An individual's behavior is dependent on an individual's ethical dimension. We define that an individual has his own ethical dimension for each behavior and he tries to follow his own rules filtered through his own ethical dimensions. This definition is consistent with the ethical dimensions by World Summit on the Information Society (WSIS) urging the information society to be based on universally accepted values and all stakeholders to promote the common good. People who have similar ethical dimensions cluster in groups and can become entities conflicting with other group(s). In trying to understand the values and principles of ethics for the information society, it is important to address them in the context of conflict because even common values that extend across different societies can be interpreted and executed differently. For instance, sacrificing A's liberty may help protect B's liberty and this can be regarded as either elevation or degradation of the values and principles depending on cultural differences, various situations, and associated personal interests (Viscusi and Zeckhauser, 2003).

From this perspective, one can view ethics in terms of conflict of two kinds: between different ethical dimensions and between an individual's ethics and his behavior. In order to understand conflicts residing in the information society, we need

to understand ethical dimensions both at the individual level and at the collective level. Once individual ethical dimensions are identified, collective ethical dimensions can be used for explaining conflict-evolution.

In this paper, the dimensions of information ethics will be discussed at individual and collective level. These dimensions are assumed to be formed within individuals on the bases of tasks. After the discussion on the ethical dimensions at these levels, conflict dynamics combined with the dimensions of the information ethics to better understand internet users' behaviors and consequent outcomes. And finally, ethical dimensions on societal level will be discussed. At this level, individuals form ethics based on common values or principles.

ETHICAL DIMENSIONS AT INDIVIDUAL AND COLLECTIVE LEVEL

People have their own ethical rulers. Depending on individuals, collectives, and societies, they have different ethical dimensions. At the individual level, a person perceives ethical dimensions for a given event. In this level, conflicts could perhaps emerge between ethical dimensions and behaviors. Cyber crime and trolling are examples at this level. At the collective level, various dimensions conflict with each other. Plagiarism and illegal music downloading fall in this category. For example, we know many people download music illegally without feeling guilty. Lastly, at the societal level, common principles and values that are interpreted differently across societies may bring about conflicts.

Table 1 shows some examples of the dimensions. In subsequent sections we discuss ethical dimensions at the individual, collective, and societal level in detail combining with corresponding conflicts.

	Individual Level (Task-based)	**Collective Level (Task-based)**	**Societal Level (Value-based)**
Conflict-enablers	Disparity between individual ethics and individual behavior	Disparity among groups clustered by collective ethics	Relative principles and ethical values
Conflicts and/or Consequent Phenomena	Cyber crime, Trolling, etc	Plagiarism, illegal music downloading	Cyber terrorism, mutual slander, digital divide
Role of Ethical Dimensions	control over individual behavior	Driver of collective thoughts and behavior	Task-supportive roles for a specific value at the societal level

Table 1. Ethical Dimensions and Conflicts at individual, collective, and societal level

Ethical dimensions at individual level

We propose that ethics at the individual level has three dimensions. It has often been assumed that ethics is a projection of culture onto a society. In addition, social or organizational climate managed by others, personal experience, personal interest and personality can also be dimensions of ethics. Individual ethics can be defined as a resultant vector of culture, situation, and personal dimensions.

Cultural dimension

Cultural diversity is often used to explain various people's behaviors across countries. This is particularly so, since cultural dimension is passive and does not easily change. As evidence, Hofstede's scales and cultural indices, as metrics of a country's cultural features, have been replicated for decades and they are still valid (Shin et al., 2004).

Culturally specific features become criteria that enable classification of cultural differences. People often accept that there are cultural differences. Yet they might say that certain behaviors based on those cultural differences are not ethical. Why do people show different attitudes towards other cultures and behaviors?

We assume that two different cultures can be represented as two different layers as depicted in Figure 1. A person in one layer may perceive the person in the second layer as being ethical. Yet, he may have a completely different take on a specific unethical behavior conducted in the other cultural territory. That is, people usually tend to project a behavior conducted in another cultural territory onto their own layer based on task-based reference frame (Woelfel and Barnett, 1992). In other words, whereas people really don't mind other cultures, they do care about others' behavior and decide how acceptable the behavior is based on their own cultural dimension. In Figure 1, music sharing is used as an example of a reference frame. When music sharing is used as a reference frame, people are able to judge how culturally demanding the music sharing is on

the basis of their own perceptions of reciprocity, solidarity, propensity to share, protection of individual right, independence, and so on.

Situational dimension

Self-monitoring across situations is correlated with personal comfort and may be a driver for an individual to behave ethically (Wysocki et al., 1987). For example, it would be less uncomfortable for an individual to litter in a public place where many people do. But if nobody is littering, the individual would be very uncomfortable to litter. In this example, personal comfort has an impact on individual ethical behavior and personal comfort is quite situational. For each different situation, an individual will be confronted with different levels of burdens, stresses, and illnesses, which will have impacts on individual ethical behaviors. Hence the situational dimension is one dimension of ethics.

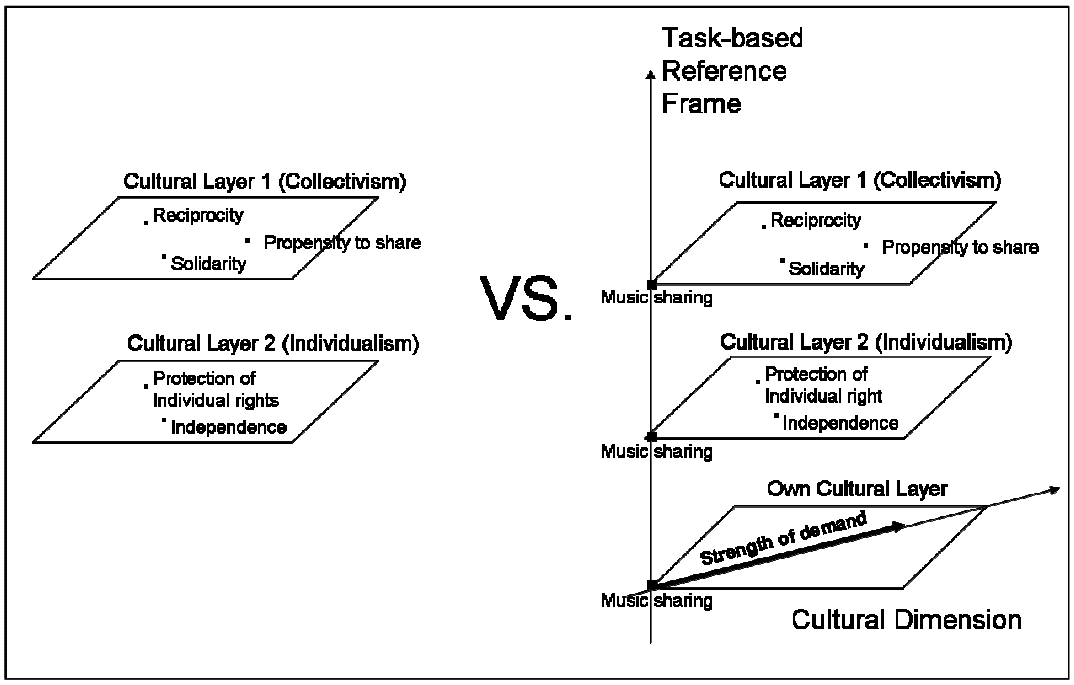

Figure 1. Cultural Diversity and Cultural Dimension

Personal dimension

Personal dimension refers to the perception of how strong a behavior is personally required. People tend to adjust the personal dimension towards a more beneficial direction. For instance, illegal music downloading is perceived as ethical behavior more for a person who wants to give pleasure to many friends than for a person who wants to enjoy it by himself. It should be noted that law has sometimes nothing to do with ethics.

Generally, the more beneficial a behavior is, the more is the rationalization for the personal demand. This rationalization is also known as rational egoism. Rational egoism is based on the idea that aiming at personal interest is rational and right (Korac-Kakabadse et al., 2000). Disparity of personal demand across individuals caused by this rational egoism gives rise to conflicts among individuals or society.

While it may be difficult to define metrics for culture, external situation, and personal interest, each dimension can have an influencing effect on individual ethics. The scalars of each dimension can be regarded as a degree of the influencing power on individual ethics as shown in Figure 2.

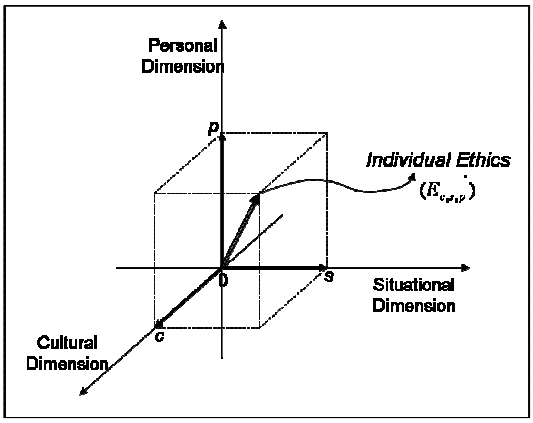

Figure 2. Three-Dimensional Ethics Model at Individual Level

Table 2 represents examples of vectors in each dimension.

Given Event	Examples		
	Cultural Dimension (0 – c)	Situational Dimension (0 – s)	Personal Dimension (0 – p)
Uploading mp3 files on the P2P site	Singapore* Canada* Japan* Spain*	An employee of a record company An employee of "Napster" Surrounded by poor students	A poor person A rich person A person who tends to listen to only new songs
Not uploading mp3 files on the P2P site	Singapore Canada Japan Spain	An employee of a record company An employee of "Napster"	A poor person A rich person A person who tends to listen to only the classical

Instance 1: *"A" is a Canadian. He works in a record company. He is rich and listens to only classical music with a good audio system.*

Instance 2: *"B" is an Singaporean. He works in a file sharing related company. He is poor. He listens to only new songs.*

Instance 3: *"C" is a Canadian. He works in a record company. He is poor and listens to only new pop songs with a mp3 player.*

Instance 4: *"D" is a Canadian. He is a student and his classmates share music to each other. He is rich and listens to only classical music with a good audio system.*

* According to Hofstede's scale, Singapore, Canada, Japan, and Spain show very high, very low, little bit high, little bit low collectivism respectively.

Table 2. Instances of Individual Resultant Dimensions for MP3 File Sharing

Two vectors in one dimension will be calculated by the sum of scalar. But two vectors in two dimensions will follow the vector operation rule. Likewise, three vectors in three dimensions will be added using the vector operation rule to get the resultant vector, the "individual ethical attitude towards a given event." It should be noted that the instances shown in Table 2 are only examples. The bottom line is that cultural backgrounds drive an individual to form an ethical attitude towards a given event.

The ethical attitude of "A" (instance 1) through "D" (instance 4) towards music file sharing will vary depending on the resultant vector. In table 2, "A" is living in Canada where individualism is widespread. Clearly one can posit that people with high collectivism are more likely to share the files. Conversely, a specific event such as music file sharing can enable cultural effect to be gauged.

Now, let us use the example of "A" in Table 2. He works in a record company. So he must be surrounded by people who are concerned about music file sharing. Thus, he will occupy a low level on the situational dimension regarding music file sharing. On the other hand, an employee of a "Napster" like "B" will be subject to high situational demands. Like cultural dimension, working at "record company" or at "Napster" is simply a fact, but ethics can be gauged when an event such as music file sharing is given.

Meanwhile, the ethical intensity of sharing the music file is defined by the volume, the product of three dimensional scalars. By definition of vector, however, individuals that have same volumes of ethical dimensions may be differentiated to each other. In table 2, for example, "C" and "D" can have similar volumes of ethical dimensions but may be different. That is, they have similar propensity to share the music file, but their behavior can suddenly change when a condition changes. Although both "C" and "D" have low cultural demanding, "C" has negative vector in the situational demanding and high dimensional vector in the personal demanding and "D" has high dimensional vector in the situational demanding and negative vector in the personal demanding. If we assume that "C" has been thinking music sharing is not so ethical but acceptable, his idea can change when he becomes not bored with music possibly by the change of listening preference and/or becomes rich. In this former case, the utility of purchasing the classical CDs gets higher than the utility of purchasing the CDs of other genres. In the latter case, the utility of purchasing CDs relatively becomes higher because of the decrease of the perceived cost. Now he is more likely to have stronger ethical attitude against music sharing by rationalization. As a rationalization example, "C" might previously think that music sharing would provide more chances to many people to listen to good music and thus it motivates musicians to work harder, eventually leading to higher music quality. But now he may think that music sharing tends to hinder listeners' devotion to music because people can have music songs too easily and eventually will listen to music very superficially leading to lower quality of music.

Ethical dimensions at collective level (Clustering)

Everybody facing an event forms his own ethical posture for the given event. Starting from initial varying ethics, as shown in Figure 3, clustering proceeds towards any local higher ethical dimension density as time goes by (Deffuant et al., 2000). Usually, clustering is reinforced when individuals are tied in a network (Deffuant et al., 2000). Each cluster in the example of Figure 3 is defined as collective ethics. It should be noted that the collective ethics is formed as per a given event or a task.

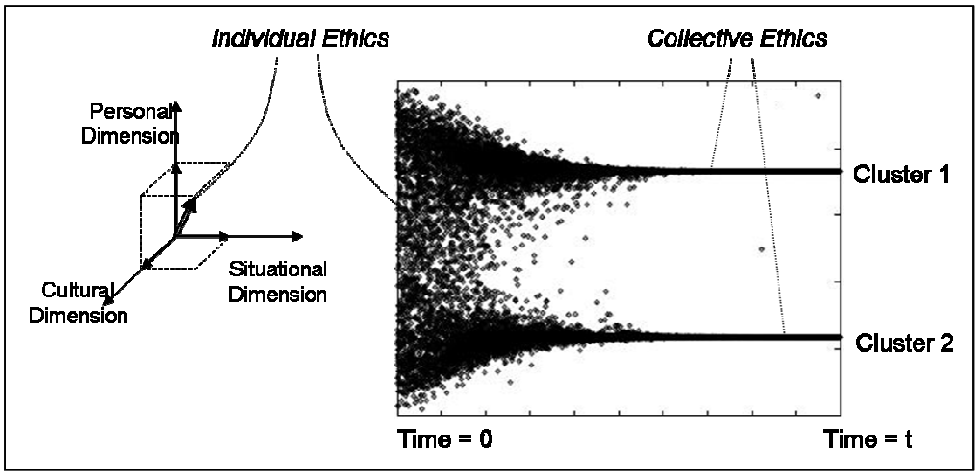

Figure 3. Collective Ethics and Clustering (Adapted from Deffuant et al. 2000)

This implies that the collective ethics is not about a collection of abstract concepts of ethics managed by super-ego based on Freudian psychology, but about a perception of how ethical a given event or a task is. This narrower view of collective ethics will help understand the conflict-evolution paradigm without any confusion.

CONFLICT DYNAMICS

The development of computer and network produces information artifacts and the information artifacts may themselves produce conflict. For instance, mp3 format was developed for ease of mobility and transferability and this artifact brings about a conflict among parties who support downloading, who oppose to it, who partially support it, and so on.

In the information society, ethics work as a good filter preventing many improper behaviors. Unfortunately, however, conflicts mostly occur due to not only the disparity of ethics and behavior but also the disparity of different ethical dimensions across individuals, societies, and countries.

Figure 4 depicts the conflict path pertaining to the collective ethical dimensions. Although ethics controls one's behavior, they may also become the bases that drive conflicts to emerge.

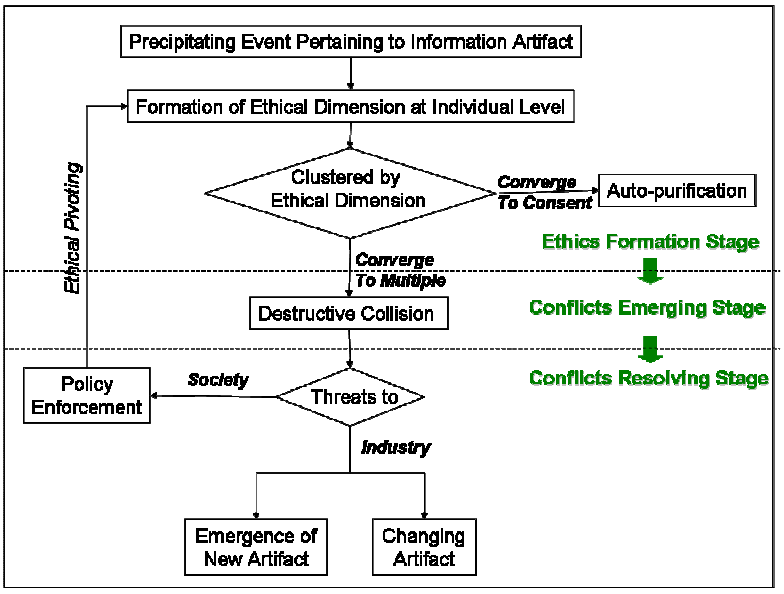

Figure 4. Dynamic Conflict Model in the Information Society (Adapted from DCM in http://www.conflictdynamics.org)

In the ethics formation stages as shown in Figure 4, individuals form ethical dimensions when an event is presented. Once the individuals form ethical dimensions with respect to the event, those individuals can be clustered to singular group (hereafter, converge) or to multiple groups (hereafter, diverge) on the basis of the ethical dimensions only for the event. It should be noted that the clustering is done for the given event and different clustering is done for other events. By this grouping procedure, dimensions can be used as a moral filter. As a converging example, trolling (replying to others' articles in an unpleasant and derogatory tone) activities may make people form identical ethical dimensions and make an effort to reduce trolling because nobody may think trolling is ethical. Hereafter, we call the identical ethical dimensions as consent information ethics. As an example of converging to multiple groups, illegal music downloading may form more than two different ethical dimensions; some may form ethical dimensions based on the idea that illegal music downloading will be in favor of the Renaissance whereas some may form ethical dimensions from the idea that it is same as theft.

The rationale behind convergence and divergence is that some individuals' behaviors may not follow the collective ethical dimensions but most people in a clustered group head to the collective ethical dimensions. This can explain the auto-purification phenomenon.

In the conflicts emerging stage, destructive collision is the consequence of divergence of collective ethical dimensions. Destructive collision is a widely used term in conflict dynamics. Destructive collision emerges especially when people conflict with each other without proactive progress (*http://www.conflictdynamics.org)*.

Multiple collective ethical dimensions can be found in many places. In table 3, illegal music downloading, tacit informed consent, and tracing hacker attack shows the examples of divergence of collective ethical dimensions.

The last, conflicts resolving stage is powered by the following questions, "is the destructive collision threats to society?" and "is the destructive collision threats to industry?" In the former case, policies such as regulations, infringement, monitoring and transparency will be promulgated by authorities. Policy enforcement may or may not resolve the conflicts and it is regressed to individual ethics formation stage as situations demand. In the latter case, the artifact can be replaced by a new artifact or can be changed such that conflicts will be lessened. For example, data mining technology that brings about many ethical problems and conflicts is dealt with by emergent technologies of protecting privacy. As another good example, mp3 marketplace such as "iTunes store" is replacing the existing record market. In sum, conflicts resolving stage is wrapped up with ethical pivoting function and by-products

Events	Related Artifacts	Divergent (or Convergent) Ethical Dimensions (Examples)	Converge to one consent or diverge to multiple dimensions	Resolution / Consequence
Trolling	Social Web	- Detrimental to social goods	Singular	Auto-purification
Illegal music downloading	Digital audio encoding	- Positive effect on quality enhancement - Criminal behavior	Multiple	Force by policy
Tacit informed consent	Editing Function	- Posting is tacit consent - Against social norm	Multiple	Force by policy New artifact

Table 3. Instances of Conflict Dynamics

ETHICS AND COMMON PRINCIPLES (SOCIETAL LEVEL)

Common values and principles in the information society are stated in UNESCO as follows: human rights and democracy, free flow of information, freedom of expression, tolerance, cultural diversity, shared responsibility, solidarity, informed consent, and so on.

No one can argue against these values and principles; however, these values and principles can be harmoniously promoted across societies only when there is supportive common information ethics. As shown in Figure 5, common information values without common information ethics are likely to be stained with conflicts.

Common information values are often assessed by authorities in order to resolve conflicts as exemplified by the defense principle and the necessity principle; the defense principle is defined as an exception that is morally permissible when one infringes on others' rights. The exception becomes acceptable if an act, object, institution, or policy is purely defensive (Kavka, 1986). On the other hand, the necessity principle is defined as a so-called "great" cause that is legitimate and is exempt from the infringement rules. Usually the necessity principle becomes valid when a much greater value can be acquired by infringing other principles (Himma, 2004).

In the rest of this section, we focus on some of the common values that can be applied across all societies.

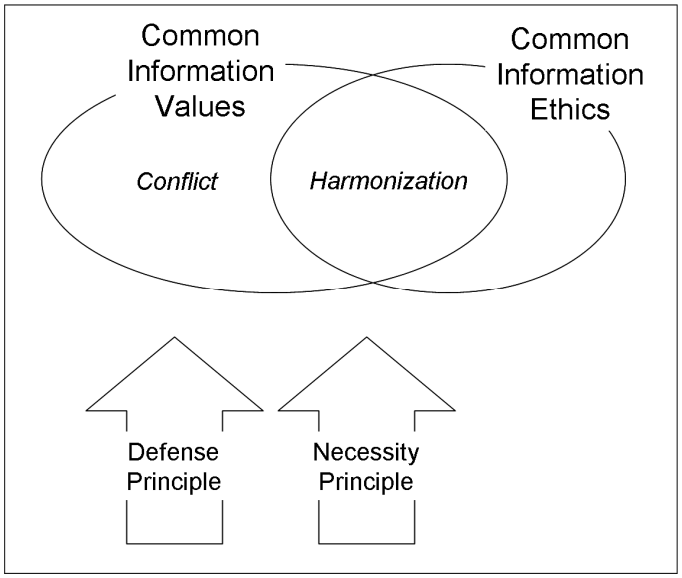

Figure 5. Common Information Values and Ethics

Freedom of expression

According to the UN declaration of human rights, "Everyone has the right to freedom of opinion and expression." Ethical dimensions on this declaration converge, and thus, promising harmonization can be expected. Possible conflicts come from the disparity between ethical dimensions and behaviors for political or religious reasons. Blocking, filtering, and labeling techniques are the ways of limiting the freedom of expression and hence cannot be rationalized by defense or necessity principles because those techniques are ethically neither defending nor resulting in greater values (Rogerson, 2004, Himma, 2004).

Cultural diversity

Although cultural diversity is accepted as a common principle that should be respected and understood across borders, conflicts amongst countries still exist. This is due to the disparity between homogenization of different cultures and speedy virtual globalization through Internet (Fairweather and Rogerson, 2003). Since people in different cultural backgrounds have different ethical dimensions, harmonious resolution is not easy. For instance countries such as China are trying to block and limit access to information based on the necessity principle. This results in serious ethical questions.

Informed consent

Informed consent becomes a subtle problem when it is related to intellectual property in the information society. In the real world, we directly get informed consent from property-holders. As the Internet becomes the main source of information or knowledge, informed consent issues will increase. For example, many people copy and paste partial or whole articles written by others and simply cite the author's name. People may argue that posting an article on the Internet is tantamount to tacitly posting informed consent. Clearly, for this issue, different people may belong to various ethical clusters, and consequently, disputes may occur among the different clustered groups. In order to reduce such disputes, new artifacts, such as image-based text (that cannot be cut and pasted) have emerged. Also, copyright protection laws and regulations are being enacted worldwide. These laws and regulations are based on both the defense principle and the necessity principle. In addition, these law and regulations are also affecting the evolution of individual ethical dimensions, and as a result, many people now believe that protecting one's copyright is ethical.

CONCLUSION

Recently, the need for formalization of common ethical code has been stressed in order to cultivate more ethical ICT environments (Payne and Landry, 2006).Also the technology acceptance behavior influenced by culture values at individual

level (Srite and Karahanna, 2006). However, it is important to note that an information society needs to have a holistic view of ethics from the perspective of moral entities such as network, artifacts, and media.

Ethics is difficult word to define. However, ethics work as a good filter preventing many improper behaviors, so ethics will be a useful tool in the information society's control. The three dimensional model of ethics formation along with dynamic conflict model will provide a guideline of how to approach emerging issues in the information society. Also, international cooperation in the field of information ethics which are about to be initiated in UNESCO will be more plausible under the understanding of dynamics of conflicts discussed in this paper.

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