

## Know it Morally vs. Do it Morally: The Ethical Gap of College Students in Informational Norms

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### Abstract:

*University education is not only to foster qualified manpower, but also to be the final stage of formal education for students before entering society. The quality levels of university students will influence a social development in the future. In the information society, students utilized information and communication technologies to complete their academic works under the requests of information ethics, regulations, and laws. Are college students aware of the contents of information ethics, access regulations, and laws in their usage? Do college students behave what they knew to abide the norms, regulations, and the law of information in their actual behavior? The ethical gap is the difference between what you want to be and what you actually be in ethical issues. The purpose of the study is to survey the ethical gap of college students in information norms and regulations including information privacy, computer usage, fair use, and academic ethics. Questionnaire surveys in 2008 and 2013 were conducted in the Department of Information and Communications at the Shih Hsin University in Taiwan. The ethical gap of college students commonly existed in their information behaviors. The new generation of college students, enrolled in the academic year of 2013, was more willing to fulfill the information norms in actual behavior than the old generation students, enrolled in the academic year of 2008.*

**Keywords:** ethical gap, information behavior, information ethics, information norms, moral awareness

### INTRODUCTION

Numerous ethical studies attempted to explore the information ethical values of college students in the information environment. The investigations surveyed the information ethical values of college students in an information-seeking situation. (Branstetter & Handelsman, 2000; Chiang & Lee, 2011; Jung, 2009; Rettinger & Jordan, 2005; Yang, Huang, & Chen, 2013) Most of students supported the information ethical rules in the academic environment. For example, the ethical attitudes of college students in computer use supported altruistic values, such as legally using the Internet, online intellectual property rights, more than egoistic values, which emphasized in online free expression, and online free surfing. (Chiang & Lee, 2011) However, in actual situations students admitted that they violated the

information ethical rules to plagiarize in academic assignments from students' self-report survey (Stephens, Young, & Calabrese, 2007), or via electronic records checks were found to cheat in completion of actual online coursework, despite students committed to the institutional honor code and academic integrity. (Simpson & Yu , 2012)

People had moral blind spots believing themselves committed to ethical norms, but they did not act morally in the actual situation. Branstetter & Handelsman (2000) found that graduate teaching assistants (GTAs) were overconfident in ignoring the gap between ethical judgments and practical actions. GTAs had judged it unethical to teach without adequate preparation; however they did not act in accordance with their beliefs to prepare their teaching, even if they have had training to implement their beliefs in practice. A similar phenomenon was observed by Olafson, Schraw, Nadelson, & Nadelson (2013). This mismatch in ethical behavior is referred to as the judgment–action gap or ethical gap, which means the difference between what a person judges to be the right thing to do versus what the person does in a real situation.

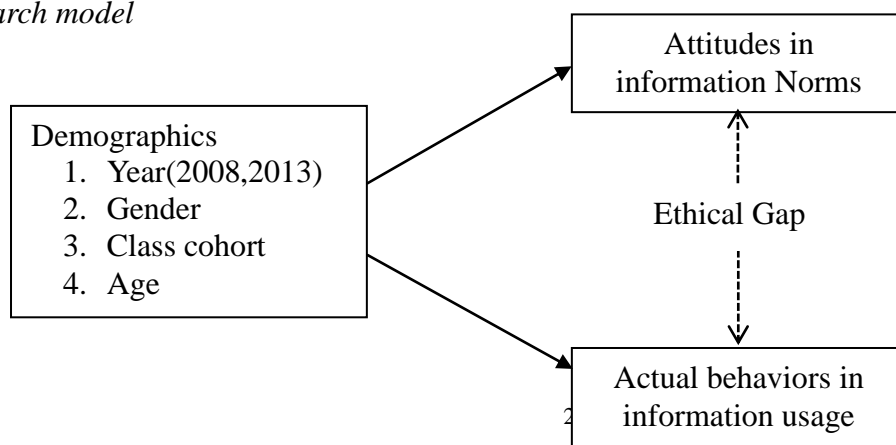
Ethical gap is a common phenomenon happened in a person's moral behavior. When people have difficulties to fulfill what they had promised or committed, for shortening the gap they may deny or violate their commitments to rationalize their decision. The unethical behavior of cheating or lying became ways for a person to rationalize behaviors in actual situations. Gino, Schweitzer, Mead, & Arie (2011) found for resistance the unethical behavior an individual had to deplete self-control resources. Depletion of self-control resource will reduce people's moral awareness, and cause to people not able to resist temptation, which ethical gap was happening. Measuring the ethical gap provides a way to observe the intensity of ethical self-control resources which indicate how many self-control resources for individual inputs for maintenance of moral integrity, and to explain how ethical individuals predictably engage in real behavior. However, little research has explored the information ethical issues from the measurement of ethical gap. The purpose of the study is to survey the ethical gap of college students in information norms and regulations from the perspectives of intellectual property right, information privacy and security protection, computer usage, and academic ethics.

## RESEARCH METHODS

### *Questionnaire Design*

In testing the ethical gap of information norm of college students, the questionnaires were developed and then distributed to the sampling college students of Shih Hsin University. The questionnaire was designed to reflect the attitudes and actual behaviors of college students in the contents of information norms. The questionnaire was divided into three categories. The first part was the attitude questions in information norms. The second part of the question was the description of actual behaviors in information usage. The third part was the independent variables of student background variables (e.g., Gender, age) (see Figure 1).

### *Research model*



**Figure 1. Conceptual framework for studying ethical gap of college students**

Questionnaire design in information norms was referenced from “Taiwan Academic Network Access Norms” and “BBS Management and Access Conventions” announced by Ministry of Education of Taiwan, and “Computer Laboratory Management Regulations” (Shih Hsin University Computer Center, 2008), “Doctor and Master Degree Examination Regulation” (Shih Hsin University, Doctor and Master Degree Examination Regulation, 2007), and “Academic Examination Regulations” (Shih Hsin University, Academic Examination Regulations, 2006). The investigation of information norms and behavior focus on four issues in intellectual property right, information privacy and security protection, computer facilities usage regulations, and academic ethics. The questionnaire was included 15 attitude questions in information norms, 20 questions in actual behaviors, and 3 background variables (see Table 1). Two types of questions were measured by using a 5-point Likert Scale, attitude questions in scale from 1(disagree strongly) to 5 (agree strongly) and actual behavior questions scaling from 1 (very frequently) to 5 (never).

**Table 1. Questionnaire Designing of Ethical Gap Questions**

Items	Information norms	Information behavior	Source
Intellectual property Right	<ol style="list-style-type: none"> <li>1. Using authorized computer programs</li> <li>2. Downloading or duplication copyright-protected work legally by the intellectual property rights abiding.</li> <li>3. Without Re-posting any articles from the electronic bulletins or any online forums.</li> <li>4. Disseminating any copyright protected works under the legal permission.</li> </ol>	<ol style="list-style-type: none"> <li>1. I used unauthorized computer software borrowed from classmates.</li> <li>2. I downloaded and duplicated copyright-protected computer software on the Internet.</li> <li>3. I uploaded copyright-protected videos to YouTube to share with others.</li> <li>4. I re-post funny stories or articles from blogs to my friends.</li> <li>5. I read the copyright declaration carefully when downloading or duplicating computer software.</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Taiwan Academic Network Access Norms</i></li> <li>2. <i>BBS Management and Access Conventions</i></li> </ol>

Information Privacy and Security protection	<p>5. To protect information security, keep your accounts and passwords safely.</p> <p>6. Without exploiting network resources to send spam or similar information that may affect the functioning of TANet system.</p> <p>7. Prohibit publishing protected work online without the author's consent.</p> <p>8. Respecting privacy right to protect the personal information.</p>	<p>6. I ever gave my account and password to my friends.</p> <p>7. I used my classmate's accounts and passwords for using network resources.</p> <p>8. I know my classmates downloading massive video files occurring network congestion</p> <p>9. I like to distribute funny stories by group e-mail.</p> <p>10. I will read the content of files if I picked up an unknown USB or CD.</p>	<p>1. <i>Taiwan Academic Network Access Norms</i></p> <p>2. <i>BBS Management and Access Conventions</i></p>
Computer Facilities Usage Regulations	<p>9. To report any computer problems to computer system manager for maintaining computer safety.</p> <p>10. Do not occupy seats by any objects for fulfilling a fair use of computer resource in the computer laboratory.</p> <p>11. Keeping seat cleans for maintaining the environmental quality of the computer laboratory.</p> <p>12. Do not play computer games in the computer laboratory without wasting limited Internet resources.</p> <p>13. Keep quiet in the computer classroom for maintaining highly learning quality.</p>	<p>11. I will make a response to system managers for any computer problems happening in the computer laboratory.</p> <p>12. I put something on the seat for occupying computer usage before I leave computer laboratory.</p> <p>13. I carried beverage or food entering into computer laboratory.</p> <p>14. I played computer games in the computer laboratory in my free time.</p> <p>15. I agree to punish to those who violate the computer laboratory regulations to make a loud noise or laugh in the computer classroom.</p>	<p><i>Computer Laboratory Management Regulations of Shih Hsin University</i></p>
Academic ethics	<p>14. Students should abide the academic creation rules and regulations to finish their academic display, study report, exhibition, dissertation, thesis, and technical report.</p> <p>15. Students should take examinations honestly.</p>	<p>16. I agree to withdraw the diploma for those who have plagiarized in their thesis, graduation display, or system design.</p> <p>17. I use the citation to refer to information resources when I copied information from the webpage in my</p>	<p>1. <i>Doctor and Master Degree Examination Regulation of Shih Hsin University</i></p> <p>2. <i>Academic Examination Regulations of</i></p>

		report.	<i>Shih Hsin University</i>
		18. I provided an answer sheet to my classmate in academic examination.	
		19. I copied the part of the article from web pages to revise the copying content in my report.	
		20. I provided my homework to my classmate for their reference or copying.	

### *Sampling*

The subjects under investigation were students of Department of Information and Communications in Shih Shin Univeristy, Taiwan. Subjects in the survey majored in media education, information science and technology. For comparison with the generation gap between students, the surveys recruited 245 and 230 college students in 2008 and in 2013 respectively. Among all questionnaires, 60 (in the 2008 survey) and 24 (in the 2013 survey) were incomplete questionnaires. Totals of 391 usable questionnaires were collected, for an effective response rate of 82.32%. Male and female students constituted 44.6% and 55.4% of the sample in 2008, and 42.4% and 57.6% of the sample in 2013, respectively. All subjects were investigated from the first 4 year academic year. All subjects were older than 18 (see Table 2).

### *Reliability Analysis of Questionnaire*

According to totals of 391 questionnaires collecting in 2008 and 2013, reliability of the questionnaire, calculating Cronbach alpha value, is 0.861 in 15 attitude questions and is 0.835 in 20 behavior questions, which demonstrated the high reliability of the instrument.

**Table 2. Demographic Data**

Items	2008 (N=185)		2013 (N=206)	
	Frequency	%	Frequency	%
<b>Gender</b>				
Male	82	44.6	86	42.4
Female	102	55.4	117	57.6
<b>Class Cohort</b>				
Freshman	50	27.2	45	22.1
Sophomore	40	21.7	56	27.5
Junior	51	27.7	50	24.5
Senior or above	43	23.4	53	26.0
<b>Age</b>				
18	39	21.3	12	6.0
19	36	19.7	40	19.9
20	43	23.5	48	23.9
21	43	23.5	49	24.4
22	16	8.7	45	22.4
Over 23	6	3.3	7	3.5

## RESEARCH RESULTS

### *Ethical gaps in information norms*

The paired-samples T test procedure was conducted to examine the possible differences between attitudes and actual behaviors in information norms (see Table 3). The findings revealed that the mean of attitudes on information norms for intellectual property right ( $t = 33.366, p < .0001$ ), information privacy and security protection ( $t = 18.746, p < .0001$ ), computer facilities usage ( $t = 33.667, p < .0001$ ) and academic ethics ( $t = 34.76, p < .0001$ ) were significantly higher than the mean of actual behavior. The ethical gap of four information norms existed for college students. Among the ethical gap in four information norms, the mean of intellectual property right was the largest ( $M=1.21$ ), and the mean of information privacy and security protection was the smallest ( $M=0.98$ ). It indicated that college students were more concerned with personal online safety than to protect online copyright.

**Table 3. The Ethical Gap of Information Norms**

Information Norms	Attitudes Mean	Actual behavior Mean	Ethical gap Mean	t value
Intellectual Property Right	3.87	2.66	1.21	33.366***
Information Privacy and Security Protection	4.09	3.11	0.98	18.746***
Computer Facilities Usage Regulations	3.97	2.88	1.09	33.667***
Academic Ethics	4.21	3.05	1.17	34.760***

Note. \*\*\*  $p < 0.001$

### *Ethical Gap Differences in 2008 and 2013*

For investigating the informational ethical changes of college students' in different academic year, we conducted the questionnaire surveys twice in 2008 and 2013. Table 4 shows no difference between year 2008 and 2013 in students' attitudes of information norms. However, the means of actual behavior in 2013 were significantly higher than the mean of actual behavior in 2008. ( $t_{intellectual} = -3.88, t_{information} = -9.54, t_{computer} = -6.06, t_{academic} = -3.30, p < .0001$ ). It indicated that college students in the academic year of 2013 were more willing to fulfill the ethical norms than students in the academic year of 2008. The results were also shown in the change of the ethical gap in 2008 and in 2013. The means of ethical gap in 2008 were significantly higher than the means of ethical gap in 2013 ( $t_{intellectual} = 2.98, p < .001; t_{information} = 9.33, p < .0001; t_{computer} = 5.84, p < .0001; t_{academic} = 3.07, p < .001$ ).

**Table 4. Ethical Gap Differences in 2008 and 2013**

Information Norms	Year		t value
	2008 Mean	2013 Mean	
Attitudes Intellectual Property Right	3.86	3.87	-0.29
Information Privacy and	4.13	4.06	1.55

	Security Protection			
	Computer Facilities Usage Regulations	4.00	3.94	1.36
	Academic Ethics	4.24	4.18	0.99
Actual behavior	Intellectual Property Right	2.54	2.76	-3.88***
	Information Privacy and Security Protection	2.69	3.50	-9.54***
	Computer Facilities Usage Regulations	2.73	3.02	-6.06***
	Academic Ethics	2.96	3.11	-3.30***
Ethical gap	Intellectual Property Right	1.32	1.11	2.98**
	Information Privacy and Security Protection	1.46	0.56	9.33***
	Computer Facilities Usage Regulations	1.29	0.92	5.84***
	Academic Ethics	1.27	1.07	3.07**

Note. \*\*  $p < .01$ ; \*\*\*  $p < 0.001$

#### *Gender Difference in Information Norms*

In terms of participants' attitudes, actual behavior, and ethical gap in information norms, female students were significantly higher than male students both in attitudes and actual behavior (see Table 5). Among the ethical gaps, female students were significantly lower than male students in intellectual property right ( $F = 2.09, p < .05$ ) and in information privacy and security protection ( $F = 2.48, p < .05$ ). Female students were more than male students to commit information norms and willingly to fulfill information norms in behavior.

**Table 5. Gender Difference in Information Norms**

Information Norms	Gender		t value	
	Male Mean	Female Mean		
Attitudes	Intellectual Property Right	3.83	3.89	-1.30
	Information Privacy and Security Protection	4.02	4.15	-2.43*
	Computer Facilities Usage Regulations	3.90	4.02	-2.41*
	Academic Ethics	4.13	4.28	-2.57*
Actual behavior	Intellectual Property Right	2.53	2.75	-3.92***
	Information Privacy and Security Protection	2.89	3.28	-4.19***
	Computer Facilities Usage	2.80	2.94	-2.79**

Regulations				
	Academic Ethics	2.97	3.10	-2.91**
Ethical gap	Intellectual Property Right	1.30	1.14	2.09*
	Information Privacy and Security Protection	1.13	0.87	2.48*
	Computer Facilities Usage Regulations	1.10	1.09	0.16
	Academic Ethics	1.16	1.18	-0.26

Note. \*p<.05, \*\* p <.01, \*\*\* p <0.001

#### *Class Cohort Difference in Information Norms*

The one-way ANOVA test procedure was performed to examine the class cohort differences in attitudes, actual behaviors, and ethical gap of information norms (see Table 6). Among the attitudes of information norms, junior students in intellectual property right, information privacy and security protection, and computer facilities usage regulations had the lowest mean in comparison with the other class groups. In the actual behavior of information norms, the means of computer facilities usage regulations for junior college students were significantly lower than the mean of freshman students and sophomore students. It concluded that junior students in comparison with the others class groups had a lower commitment in information norms and were unwilling to fulfill computer usage regulations.

**Table 6. Class Cohort Difference in Information Norms**

Information Norms	Class Cohort				F value	Post Hoc test	
	Freshman (1) Mean	Sophomore (2) Mean	Junior (3) Mean	Senior or above(4) Mean			
Attitudes	Intellectual Property Right	3.94	3.81	3.77	3.87	3.23*	1,4>3
	Information Privacy and Security Protection	4.14	4.10	3.96	4.18	3.73*	1,4>3
	Computer Facilities Usage Regulations	3.99	3.91	3.87	4.11	4.31**	4>2,3
	Academic Ethics	4.21	4.13	4.19	4.33	1.88	
Actual behavior	Intellectual Property Right	2.75	2.67	2.63	2.60	1.32	
	Information Privacy and Security Protection	2.96	3.24	3.11	3.14	1.41	
	Computer Facilities Usage Regulations	2.96	2.92	2.75	2.89	3.33*	1,2>3
	Academic Ethics	2.99	3.03	3.07	3.08	0.73	
Ethical gap	Intellectual Property Right	1.19	1.15	1.14	1.36	1.92	
	Information Privacy and Security Protection	1.17	0.86	0.85	1.06	2.34	
	Computer Facilities Usage	1.03	0.99	1.12	1.24	2.93*	4>1,2



Regulations					
Academic Ethics	1.21	1.10	1.11	1.24	1.14

Note. \* p <.05, \*\* p <0.01

## CONCLUSION

This study focused on the higher education system in Taiwan to investigate students' ethical gap in information norms and regulations of intellectual property right, information privacy and security protection, computer usage, and academic ethics. The study investigated ethical issues by using self-report measures to survey the ethical gap, the difference between a person judges to be the right thing to do versus what the person actually does in a real situation. The research concluded that the ethical gap commonly existed in college students' information behaviors. By the time of computer usage and information literacy education for students, the new generation of college students was more willing to fulfill the information norms in actual behavior. The female students were more than male students both in attitudes and actual behaviors to support and obey information norms. For the further studies, it suggested doing an experimental test to observe subjects' ethical behaviors in the ethical decision-making process to understand the cause and effect in ethical gap.

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