## CMU Student Perceptions of Academic Integrity and Old Course-Materials Archives

Team A: Victoria Docherty, Will Ouyang, Daphne Tsatsoulis, Bin Yang

#### A. Why our topic is interesting

The question that we're proposing to study is Carnegie Mellon University's perception of Academic Integrity & Old Course Material Archives.

As Carnegie Mellon University is a world-class institution known for its rigorous academics, we would like to use this study to find out whether students understand and know all the academic policies that Carnegie Mellon University enforces. Also, we would like to find out about what students feel about old test and course material stockpiles and lastly, their opinion on a possible proposed solution. Using these results, we hope to possibly propose to the university administration, with strong statistical backing, about the possible implementation of a campus-wide, official university-sanctioned system of old academic materials for all classes to ensure all students have the same advantage in achieving academic success.

#### B. Question we propose to answer

We propose to answer whether Carnegie Mellon undergraduate students are aware of the academic archives kept by fraternities, sororities, and other campus organizations that may contain old class notes, exams, projects, and homework. Also, we propose to find out whether students have access to such documents, whether these documents are used, and if they believe that the use of these documents is ethical, with hope of evidence to push for a new officially-sanctioned old course material system.

#### C. Previous Research on topic

- CMU's *The Tartan* published an article in late 2008 surveying members and leaders of Greek organizations, clarifying official CMU academic policies on the issue of old stockpiles, and referring to Case Western Reserve University's approach. It can be found here: <a href="http://www.thetartan.org/2008/11/10/news/greeks">http://www.thetartan.org/2008/11/10/news/greeks</a>
- The Journal of College Student Development also published an article about an examination involving academic dishonesty between sorority and non-sorority women. The article talks about the significant differences between the frequency of occurance of academic dishonesty between greek and non-greek students, which helps to show a divide between the greek and non-greek student population. It can be found here: <a href="http://muse.jhu.edu/journals/journal\_of\_college\_student\_development/v048/48.6williams.html">http://muse.jhu.edu/journals/journal\_of\_college\_student\_development/v048/48.6williams.html</a>
- Case Western's *The Observer* published an article in late 2007 reviewing the actions of the Academic Integrity Board there and highlighting the ambiguity of the issue. It can be found here: <a href="http://observer.case.edu/Archives/Volume 40/Issue 9/Story 2145/">http://observer.case.edu/Archives/Volume 40/Issue 9/Story 2145/</a>

• A good potential reference to the scale of the problem can likely be found by Case Western Reserve University's statistics on how many students were investigated for academic dishonesty (essentially, how many were "caught" as opposed to the estimated percentage of students who have used questionable material before): http://studentaffairs.case.edu/groups/aiboard/statistics.html

#### D. The population we plan to sample

The population that will be sampled would be students from the main Carnegie Mellon University campus that are of the undergraduate level (1<sup>st</sup>-5<sup>th</sup> Year).

#### E. The population to which we are making inferences

We would like to make inferences about a population consisting of randomly selected individuals from all colleges. Our sampling frame would be both the Carnegie Mellon C-Book, as well as the Andrew Directory, which could be requested from the hub. The Carnegie Mellon C-Book contains a list of all Carnegie Mellon students and the Andrew Directory contains all Andrew IDs for students, which is essentially an email address. The student SMC information is also listed within the C-Book, as we may require this if enough time is available (Explained in part d.).

#### F. How we plan to carry out our survey

Our options that we considered are:

1. Face to face interviews, 2. Phone survey, and 3. Email/web survey

Due to the sensitive nature of our survey (questions related to academic integrity, access and usage of archives, etc), our first and most important condition was that our method of survey should maximize the accuracy of responses and best guarantee confidentiality.

Therefore, when considering face to face interviews, we believe that many students we survey (the majority of whom our group would not know) would not be comfortable with the questions we would ask, especially considering that we would likely be asking them at some public setting on campus.

With regard to a phone survey, the first obstacle that we believe we would run into is that the Carnegie Mellon C-Book (2009-2010 edition) generally only lists dormitory phone numbers, and we believe that a significant proportion of undergraduates do not have a land line set up. With that being said, we also believe that we would not conduct a phone survey because even if we had a directory of mobile numbers, we still believe that there would be the uncomfortable barrier of giving an unknown caller who knows your name and other identifying information responses to our survey.

at CMU

Therefore, we plan to carry out the survey by randomly selecting a population size of a few hundred undergraduate students from the Carnegie Mellon C-Book (2009-2010 edition). We will then utilize the online Andrew directory to send an initial email out that contains a link to complete the survey. Follow-up emails for the non-respondents would be sent exactly 1 week and 2 weeks after the first contact. In addition, given enough time, we would also consider using the student SMC information with the campus mail system to drop reminder slips in student mailboxes after the first week.

Any information sent (initial emails, the survey disclaimers, and traditional mail) to the participants would strongly emphasize the anonymity and confidentiality of the survey. We would likely also include a few sentences about the neutrality of our intentions in order to prevent any response rate effects due to each individual's agreement/disagreement with our data collection on this sensitive issue.

If our final proportion of participating students is not representative of the overall CMU undergraduate population profile (gender, year of study, academic major, etc), we will weight different response categories in order to better project how our sample represents the actual student body.

#### G. Variables we propose to measure

#### Category 1: Basic identifying variables

- Age
- Gender (Male/Female)
- Race (Caucasian, Asian, African American, Native American, Other)
- Citizenship Status (Primarily U.S. Citizen versus International Student designation)
- Year in College (Freshman/Sophomore/Junior/Senior/Other)
- Primary College (CIT, TSB, H&SS, etc)
- Academic Major(s)
- Academic Minor(s)
- On Campus/Off Campus Residence
- Current QPA

#### **Category 2: Survey topic-related variables**

- % of respondents with graduate school plans (to gauge respondent interest in higher education and how this might affect the choice of work completion method that we are trying to sample, which includes using old material)
- Frequency of usage of campus services (Academic development, Career Center, CMU Escort, Safewalk, other services)...this could be used to identify respondents who actively utilize official university services
- Knowledge of what the CMU Academic Policy states (comparing survey responses against what our group has researched and knows the CMU Academic Policy allows/disallows)

- The usage of old tests handed back by professors is (allowed/not allowed/unsure)
- The stockpiling of old academic material by student organizations is (allowed/not allowed/unsure)
- The estimated percentage of all classes taken by the respondent that have had the instructor expressly prohibit usage of old course material (to measure professor awareness, knowledge, and proactive steps taken to cut down on usage
- The estimated percentage of all classes taken by the respondent that have had the instructor post old exams, quizzes, etc as a study tool
- The percentage of students who have personal access to an archive of old academic material
- Follow up variable measurement: Source of this archive (choices would include Greek organization, other student organization, informal group of friends, and other)
- Follow up variable measurement: How often students with access utilize it (never, daily, etc)
- Note: we would not identify the exact archive source for fear of skewing the accuracy of our survey or inducing non-response
- To what extent respondents believe that students with access to old material has an advantage (slight, significant, none)
- Follow up variable measurement: For those who answer that there is an advantage, what percentage thinks that this is an unfair advantage?
- Degree of interest (category variable) students would have in a campus-wide, official university-sanctioned system for all classes
- This would be preceded by a brief description of the attempt made at Case Western University and what the test bank would include.

#### Η.

Please see above

#### I. IRB

Please see separately submitted IRB form.

#### J. Proposed privacy protection

We use the information collected from the surveys to compile reports on CMU Student Perceptions of Academic Integrity and Old Course-Materials Archives. Due to the sensitive nature of research data, any information that is collected is treated with the utmost confidentiality. We will not sell any personal information gathered from individual respondents. Furthermore, personal data is never shared with any third parties unless the respondent has specifically authorized it.

#### K. Sampling scheme

We have decided to use Multi-Phase Sampling in which we will use two phases. We have decided to use two phases of sampling, because we are uncertain what our response rate

will be. In the first phase we will send out a smaller set of surveys to gauge the response rate we can expect. We will then send out a second phase of surveys, which will take into account the number of responses we except (as detailed in part M).

Our questions do not rely on gender, age, race or major; the main division in the population of interest for our survey is between students involved and not involved in a fraternity or sorority. This is why we have decided against using Stratified Sampling.

If our results do not accurately reflect the student population divisions, we will weight the results. For example, based on the Fraternity and Sorority Life Report, Fall 2009, 18% of the Carnegie Mellon population is involved in Greek Life; based on this, we will weight our responses so that 18% of our population's responses will be those of students involved in Greek Life. If we feel that a misrepresentation of gender/major/age is affecting our survey's results, we will then apply weights to correct this.

This is fine; you do not have to stratify further.

However, if you think that the rate of using old course materials differs for fr/so/jr/sr it might be worth stratifying further.

#### L. Questionnaire

Attached at end of document.

#### M. Sample size

For a 95% confidence level, with a population of 5892 undergraduates (Wikipedia), we have calculated the following:

Confidence Interval	Sample Size:	Phase 1: number of emails sent	Phase 2: (expecting 25% response)
4%	545 people	400	1500
5%	361	200	1200
6%	255	180	900
7%	190	140	600
8%	146	100	500
9%	119	100	380
10%	96	100	280

According to lecture slides, the range for emailed survey responses is 20-30%. We will assume a 25% response for our Phase 1 email. Based on this, we will submit 150 Phase 1 emails. From this, we will determine how many Phase 2 emails to send (see above for examples). We will aim for a confidence interval of 8%. This will be affected primarily by response rate of Phase 1.

To achieve our  $\pm 8\%$  goal we will need a sample size of 146 people, so we will have to send 600 email surveys if our response rate to Phase 1 is 25%.

#### **DEMOGRAPHICS:**

Please fill in the following:

Primary Major		
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this is a great idea to use phase 1 to estimate the resp rate and hence the remaining effort required.

Year(circle	one)	1 2	3	4	5+	
Gender: Mal	e / Fema	ıle				
QPA(circle o	one):					
0.00-2.00	2.01-2.5	50 2.	51-3.00	3.01-	3.50	3.51-4.00
Do you live	(check o	ne):				
On Camp	ous Unive	ersity Ho	ousing (E	Excludin	g Greek	Lease Housing)
Greek Le	ease Hou	sing				
Off Camp	ous unive	ersity ho	using			
Private o	off campu	ıs housi	ng			
Are you a m and honor s				ernity	(exclud	ling professional, service,
•	•			-	_	nized campus student
organizatio	n (not in	ciuaing	a irateri	nity or	sororit	y): res / No
MAIN SUR	VEY QU	JESTIO	NS			
1. Do you in	tend to g	go to gra	aduate so	chool?		
Yes						
Unsure						
No						
2. Which academic campus services do you use, and with what frequency:						
Office Hours						
Never	Semeste	erly	Monthl	y V	Veekly	Multiple times per week
Academic Development (SI, study groups, tutors, etc.)						
Never	Semest	erly	Monthl	y \	Veekly	Multiple times per week
<u>Career Center</u>						
Never	Semest	terly	Monthly	<i>y</i> 1	Weekly	Multiple times per week
Other:						

# 3. What is the university policy regarding the use of old class materials to study for a current course a student is enrolled in? Choose the best fitting choice:

- a. Entirely prohibited
- b. Prohibited unless given by professor
- c. Not prohibited unless professor says otherwise
- d. Not prohibited
- e. Don't Know

# 4. To what extent do you believe the following can be used as supplemental information for a course you are taking? Choose the best fitting choice:

### Old notes (not given from professors):

1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
Old Homework:						
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
Old Exams:						
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
Old Projects/	<u>Programs:</u>					
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
Old Papers:						
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
Old Lab Mate	rials/Papers:					
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
Internet Sour	ces:					
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
<u>In-Class Peers</u>	<u>s:</u>					
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	
Students Who Have Completed the Class:						
1 (never)	2(rarely)	3(sometimes)	4(often)	5(always)	6 (n.a.)	

	nt courses, do you currently have acces from previous years the class was offe	5
Notes	Homework	
Projects	Lab Data/repoi	rts
Papers	Programs/Code	
Exams	0 ,	
5(b). If you checked a	any of the above, what is the source of	your access?
Fraternity/Sorori	ty	
Officially recogniz	zed CMU student organization	
Informal social ne	etwork	
Other		
6. Out of the material apply:	ls you have access to, which do you us	e? Check all that
No Access Homework	Notes Projects	
Lab Data/Report	•	
Programs/Code	Exams	
None	Blackboard	
	believe possessing supplemental mates academic performance?	erials would affect
Notes:		
Does not help at all grades	Helps but does not affect grade	Changes letter
Homework:		
Does not help at all grades	Helps but does not affect grade	Changes letter
<u>Projects:</u>		
Does not help at all grades	Helps but does not affect grade	Changes letter
Lab Data/Reports:		

Does not help at all grades	Helps but does not affe	ect grade	Changes letter
<u>Papers:</u>			
Does not help at all grades	Helps but does not affe	ect grade	Changes letter
Programs:			
Does not help at all grades	Helps but does not affe	ect grade	Changes letter
Exams:			
Does not help at all grades	Helps but does not affe	ect grade	Changes letter
<b>8. Do you think that (</b> Yes	Greek organizations hav No	e archives of old	class materials?
9. Would you conside material?	er joining a Greek organi YesNo	ization to be able	to access this
10. Did these archive	s affect your choice to jo	oin a Greek organ	ization?
Yes	No	Not in a G	reek Organization
	ester, how many of your th? How many ]	-	
12. Do you believe th advantage?Yes	at old course material p	rovides students	with an
_	at access to old course n		ovided by the
	which students should t that are kept by sororiti		
No Students	Students in the	Organization	All Students
15. Do you consider t professor) ethical?	the use of the following r	naterial (not pro	vided by
Old notes: Ethical	Not Ethical		

<u>Old Homework:</u> Ethical Not Et		hical				
Old Exams:	Ethica	l	Not Ethical			
Old Projects/Programs:		Ethical		Not Ethical		
<u>Old Papers:</u>	Ethica	1	Not Ethical			
Old Lab Mater	ials/Pa	pers:	Ethical	l	Not Ethical	
Internet Source	es:	Ethica	l	Not Et	hical	
<u>In-Class Peers</u>	<u>:</u>	Ethica	l	Not Et	hical	
Students Who	Have C	<u>omplet</u>	ed the (	Class:	Ethical	Not Ethical
16. Do you co professor) ch			e of the	follow	ving materials	s (not provided by the
Old Notes:	Cheati	ng	Not Ch	eating		
Old Homeworl	<u>k:</u>	Cheati	ng	Not Ch	eating	
Old Exams:	Cheati	ng	Not Ch	eating		
Old Projects/P	rogran	<u>ıs:</u>	Cheati	ng	Not Cheating	
<u>Old Papers:</u>	Cheati	ng	Not Ch	eating		
Old Lab Mater	ials/Pa	pers:	Cheati	ng	Not Cheating	
Internet Source	es:	Cheati	ng	Not Ch	eating	
<u>In-Class Peers</u>	<u>:</u>	Cheati	ng	Not Ch	eating	
Students Who	Have C	<u>omplet</u>	ed the (	<u>Class:</u>	Cheating	Not Cheating
(submitted by		ssors)	that w	ould be		ve of old course materials y all students?
Yes		_	No		_	_
	u perso	onally l			the creation o	f a campus-wide archive?
Yes		-	No	1		