

MUSIC AND MOVIE INTERNET PIRACY AT CARNEGIE MELLON

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CONTEXT AND BACKGROUND

- 2 billion people with internet access
- Old standards of intellectual property protection are strained in the age of the internet
- Consequences of the internet on IP is among our most pertinent issues in cultural policy

RECENT ATTEMPTS AND COMBATING PIRACY

- SOPA and PIPA made a splash in the headlines, but were quickly shut down by both corporate and grassroots efforts
- Mr. Dotcom and Megaupload in the media
- The role of internet-service-providers (ISPs)

Research Questions

- SOPA/PIPA attitudes
- Just how prevalent is Internet piracy in our own community?
 - To some students, enjoying pirated content seems like second nature
- Do students experience ethical quandaries when using pirated content?
- Is “downloading” worse than “streaming”?

Our Survey

Survey Setup

Background questions (SOPA/PIPA attitudes)

Example) Q.1 Have you heard of the recently proposed SOPA/PIPA bills?

- Yes or No

(Regardless of answer, we then provide summary information on both bills before the respondent completes the rest of the survey)

Personal piracy behavior questions

Example) Q.6 Have you ever streamed pirated content?

Example: Stream a TV show from Megavideo/SideReel.

- Yes or No

Our Survey

Potential scenario questions

Example) Q.15 You download this movie from dtella (or another peer-to-peer file-sharing network) and watch it on your computer.

Do you consider this to be (check all that apply):

- Acceptable
- Illegal
- Unethical
- No opinion on the ethics or legality of this action

Demographic questions

Example) Q.26 What school are you in? (If you are in multiple schools, please select the school of your primary major.)

- CFA, MCS, CIT, HSS, Tepper, SCS

SURVEY

Population: CMU Undergraduate Students

Sampling Frame: CMU C-Book [Directory]

Sampling Schema and Administration:

- Generated random page #'s from the C-Book (R random # generator)
- Contacting undergrads from those pages via their CMU e-mail address
 - If the initial response rate from the first batch of emails is too low, we will use Facebook to contact people

A Little Advice for Future 303'ers

- Automated random sampling
 - Quick way of generating a random sample
- Set up your sampling frame in a way that would facilitate your sampling (we did not do that)
- Pre-test your survey in person
 - Sampling strangers with pen-and-paper surveys is a good way to gain candid feedback from participants and add clarity to the survey

CURRENT ISSUES

- Low web-based response rates hopefully mitigated by an incentive to respond (gift card)
- Drawing a sample involved taking down andrew IDs manually from C-Book [explored ways to do this digitally]
- Distinguishing between streaming and downloading; recognized early on by group members and some pre-testing.
- Google Surveys enabled conditioning question order based on response

Completed

- Survey form
- E-mail template
- Sample list with all Andrew IDs from the randomly selected C-Book pages

Colour Key	Andrew IDs [master list]	<<currently, <<master only has pages 104,42,39,21	Page 106 andrew IDs [7:00]	Page 63 andrew IDs	Page 49 andrew IDs	Page 25 andrew IDs [4:00]	Page 66 andrew IDs	Page 34 andrew IDs [4:00]
Bogie	vsun@andrew.cmu.e		rtarziu	clamb	asholden	chienanc	winniel	bdowad
Nardi	nsundara@andrew.c		mtassano	tlamidi	cholgate	crchen	jlevidy	adowling
Grindle	nsundare@andrew.c		vrt	llamon	aholinsk	cgchen	tlevin	edowrey
Lee	cmsunday@andrew.		glt	llamonta	chollida	hanzhic	cjlevine	madoyle
Volichenko	vsunder@andrew.cm		dtaveras	slampl	ehollins	haoc	slevinso	tdoyle
Gorman	andrewsu@andrew.c		stawa	tlampl	blhollis	hauc	jlevitin	adrake
	angelins@andrew.cr		mhtay	slanden	azh	janicec	alevkoy	gdrake
	daeuns@andrew.cm		yichunt	elandon	jhhomer	jasonche	dblevy	adranko
	jens@andrew.cmu.e		ytay	dslane	arthurho	jcc1	eekentl	edroder
	jssung@andrew.cmu		antaylor	jelane	cjhong	joannach	tlew	mdruggan
	jongmins@andrew.c		cbtaylor	gclang	chrishon	jechen	bmlewis	rdrummon
	csupinka@andrew.c		ectaylor	ylang	clarah	igchen	eflewis	adruta
	ksupko@andrew.cm		gtaylor1	emlanger	danielho	kwchen	jeunessl	jdрутman
	asurasky@andrew.c		lhtaylor	blangone	dukjunh	laurache	ayli	pdubey
	asutanto@andrew.c		put	klangsta	fhong	litingc	ayl1	cdubrin
	asuveepa@andrew.c		kft	blanier	jinsubh	mechen	bohan1	hdubrow
CG	ksuzich@andrew.cm		jtegeler	amlans	jiyunh	mchen2	chli	tduchak

Survey Post-processing

- Compare the demographics of our respondents with those of the CMU student population
- If the demographic distribution of our respondents deviates substantially from the target population, we will apply weights to our responses to adjust our results
- Will maintain a high threshold for 'substantial deviation'

Analysis

- Analysis Tool: Use the R statistical software environment
 - Easy to import the .csv response file from Google Surveys
 - Team has substantial experience with R
- Goals: Answer our research question, "To what extent do CMU students engage in internet piracy and what are their views on related copyright enforcement policies?"
 - Questions 4-10 and 15-17 answer the first part of the question regarding CMU students' piracy behavior
 - Questions 1-3 and 11-20 provide evidence to answer the second question regarding views on copyright enforcement

Analysis (cont'd)

- Piracy behavior
 - Simplest assessment: percentages based on the simple 'Yes/No' answers to questions 4 and 5
 - What types of piracy do students favor?
 - Which types of behavior occur in conjunction?
 - Does almost everyone that uses streaming sites use direct download sites?
 - Do people that only stream know whether they are viewing pirated content or not?
 - Conditional analyses will most likely provide the most insight
 - Conditional boxplots, sunflower plots, etc.
 - Views on copyright enforcement
 - Interpreting our results may be a bit more difficult
- 'Scenario' section, we can assess how people's response to each action change throughout the storyline
- At what point do people draw the line in terms of being ethical?
 - Identify incongruities in responses
 - Do people consider streaming unethical, but still say they would watch a movie on youtube?

CONCLUSION/ LEFT TO DO

Steps to take immediately:

- Send the survey out to 200 randomly sampled subjects.
- Wait 2-3 days for responses.
- Initial response rate high -> stick to e-mail distribution
- Initial response rate low -> combine with FB distribution
- If response rates remain unacceptably low, will send a reminder email/message to all non-respondents after 3 days

Regardless of which method we plan to use, we will stop the intake of survey results within one week after the initial testing period.