

# 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	jgchen	eflewis	adruta
	ksupko@andrew.cm		gtaylor1	emlanger	danielho	kwchen	jeunessl	jdrutman
	asurasky@andrew.c		ltaylor	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.cn		jtegeler	amlans	jijunh	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.