Saving, Reusing, and Remixing Web Video

using attitudes and practices to reveal social norms

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It’s easy to find examples of video reuse on the Web, either literal republication of video segments, or mashups where pop divas like Whitney Houston and Taylor Swift harmonize with screaming goats.
According to Larry Lessig, user behavior is governed by interacting forces including law, commerce, technology, and social norms. Our talk will be focusing on the latter, on how social norms emerge through successive cycles of use and reuse.
introduction
method
participants
quantitative results
qualitative results
implications and future work
Motivation

Inform the design of **Web content services**
- Video has become ubiquitous & easy to create
- Evolving practice of reuse and remix
- Our interest grew out of archiving and PIM: *How will people use the stuff in content archives?*

Inform the design of **online content policies**
- What do people *believe* is okay and not okay?
- What do people *do* in practice?
- Balance the interests of (unheard) stakeholders
  *We hear about Disney and Sony’s needs and desires; what about everybody else?*
Focus on social norms emerging from common things people do with Web videos

• store
  – e.g. save Maru to personal Dropbox

• share
  – e.g. post Maru to a Facebook wall

• (re)publish
  – e.g. curate YouTube mashups of goats who scream like humans and pop singers

• remix
  – e.g. overlay a new audio track (e.g. “honey badger don’t care”)

• remove
  – e.g. change privacy settings to limit audience to your recent Karaoke performance
• introduction
• method
• participants
• quantitative results
• qualitative results
• implications and future work
Method: Overview

• Develop realistic **scenarios** to use as survey basis
  – Use hypothetical situations to find social norms
  – Complemented by practice questions
• Deploy survey as **Mechanical Turk HIT**
• **Analyze** results
  – Characterize participants
  – Compare across hypotheticals
  – Triangulate qualitative and quantitative results
develop scenarios
hypotheticals: from legal education and CBR

The pure hypothetical is a counterfactual variation on the fact pattern of an actual case. The hypothetical plays an important role in the Socratic style of law school teaching.

Solum, *Legal Theory Lexicon*, 2013

Hypotheticals may be used to ... factor a complex situation into component parts (e.g., by exaggerating strengths, weaknesses or eliminating features).

Rissland and Ashley, *Hypotheticals as Heuristic Device*, 1986

<stakeholder> takes <action> as instance of <concept>
develop scenarios & hypotheticals to elicit social norms

step 1. characterize the phenomenon of interest
step 2. factor it into parts (stakeholders, actions, concepts)
step 3. develop scenarios and hypotheticals
step 1: identify video reuse phenomena

reposting an existing video

embedding clips

satire/humor: e.g. bad lip reading

commercial reuse
step 2: factor it into constituent parts

<stakeholder> takes <action> as instance of <concept>
Dimension 1: <stakeholder>
• 2 guys in the recording
• Audio engineer who helps edit recording
• Service provider who hosts the content
• People of varying social distance from obvious rights holders
dimension 2: <action>

- store
  - e.g. save to USB key, cloud

- share
  - e.g. post to Facebook friends

- (re)publish
  - e.g. upload to a YouTube channel

- remix
  - e.g. illustrate recorded audio stream with animation

- remove
  - e.g. untag video (remove actor’s name)
Dimension 3: <concept>
- republication on a social media service
- satirical reuse
- excerption/clips
- commercial reuse
step 3a: develop scenarios

With the help of engineer Wendy, Daniel and Adam create a weekly podcast. This week they’ve had a guest on the program, Auntie Vera Charles, a voice-over actor who sat in for a portion of the recording session.

During the episode, Auntie Vera does a dynamite Al Pacino imitation and a pretty good Cher.
step 3b: pose hypotheticals

Hypo 1: Engineer Wendy can share a copy of this week’s episode to Facebook.

Hypo 2: Guest voice actor Auntie Vera Charles can excerpt the portion of the podcast in which she appears (and does funny voices from her act) and sell the clip for 99 cents (USD) from her own web store.
to make the judgments comparable, participants rate successive hypotheticals on a Likert scale

- Strongly Agree
- Agree
- Agree somewhat
- Undecided
- Disagree somewhat
- Disagree
- Strongly disagree
3 different Web video scenarios form the basis of 3 surveys

Each survey had a main scenario based on observed Web video genre

– comedy podcast
– recorded teleconference
– educational video
deploy surveys on mechanical turk
Using Mechanical Turk

• Survey offered as HIT to US Turkers

• We used current best practices from the lit for using AMT to perform studies (e.g. Kittur, Chi, & Suh, CHI 2008)
  – Use reliable Turkers (i.e. >95% acceptance)
  – pay at established rates
  – screen participants for experience with Web video
  – Use reading comprehension questions (MCs) to ensure focus
**Data**

- 634 valid responses; 719 submitted
- Screening removed 85 responses; two or more points disqualified
- Each of the following resulted in one point:
  - A wrong answer to a reading comprehension question (3 in each survey)
  - An unanswered question or nonsense response (40-44 questions/survey)
  - Work time below threshold (8 minutes)

<table>
<thead>
<tr>
<th>Study</th>
<th>Media type/genre</th>
<th># responses</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (PC)</td>
<td>Interview podcast</td>
<td>225 (239)</td>
<td>42 questions</td>
</tr>
<tr>
<td>2 (VC)</td>
<td>Recorded Video</td>
<td>200 (229)</td>
<td>40 questions</td>
</tr>
<tr>
<td>3 (ED)</td>
<td>Academic lecture</td>
<td>209 (250)</td>
<td>44 questions</td>
</tr>
</tbody>
</table>
• introduction
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• **participants**
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• qualitative results
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Participants tend to be young, Internet-savvy, and diverse

- Participants are mainly in their 20s and 30s (13% born before 1970 and 13% born after 1989)
- Relatively balanced M/F ratio (especially for surveys)
  Podcast survey: 55% male
  Videoconferencing: 53% male
  Educational videos: 50% male
- Relatively well-educated: Over 90% have attended college; 60% graduated; about 30% are current students
many participants (2/3) reported sharing videos

• reusing/reposting copyrighted commercial material is likely **underreported**
  – social desirability bias — Antin and Shaw 2012

• participants may not recognize **fair use** provisions of copyright law
  – Aufderheide et al.’s (2012) study of journalists found that they were over-conservative about fair use
last video you shared? (part 1)

<table>
<thead>
<tr>
<th>Genre</th>
<th>Example (self-produced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative effort</td>
<td>“Srgt. [sic] Richard Cleener was the last video I uploaded to youtube. It was a weekend film challenge and it turned out great!” [VC135]</td>
</tr>
<tr>
<td>Documenting ordinary events</td>
<td>“My son making fart noises with his arm. So that the family could see.” [VC128]; “I took video of my cat rolling around on the floor and eating candy.” [VC038]</td>
</tr>
<tr>
<td>Instructional video</td>
<td>“I had shot a video of a positive PPD (Mantoux) on my arm a while ago. I posted it so that others who go through this test will have a rough idea about what will be their end result if at all they take the test.” [VC093]</td>
</tr>
</tbody>
</table>
**Category** | **Example (curation of existing content)**
--- | ---
Professional video (documentary)* | “I shared a video that talks about the SOPA bill...” [VC016]
Professional video* | “The last video I shared was "baby languages" it is a part of an episode from Oprah about 5 sounds that all babies make and what they mean...” [VC047]
Recorded performance* | “It was a brief clip from a sketch comedy show. I shared it because a friend of mine has a thing for Scottish men, and I thought the Glaswegian comedian would brighten her birthday.” [VC193]
Found video | “It was a dog balancing 36 treats on its nose. Thought it was hilarious, so decided to share.” [VC136]
• introduction
• method
• participants
• **quantitative results (responses to hypotheticals)**
• qualitative results
• implications and future work
focus on recorded video teleconference scenario (the other 2 are described in our paper)
<table>
<thead>
<tr>
<th>Study</th>
<th>Description of central scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (PC)</td>
<td>Two comedians host a weekly interview-format podcast; an engineer (who records a podcast of his own) helps them with production. This week’s guest, a musician, performs a parody of a popular pop song during his interview. A fan tags the interview, which enables an ex-band member to find the episode and comment on it. The podcast is re-edited and republished under a variety of circumstances.</td>
</tr>
<tr>
<td>2 (VC)</td>
<td>Bill, a computer programmer, has a job interview on Skype. He records the interview and shares it with a friend (Kyle) to help him apply there too. When Bill isn’t offered the job, he posts the interview on YouTube in an effort to interest other employers in him. Bill also republishes it with a commentary track to help others interview better (he uses only his own side of the interview). Finally Bill turns the interview video into a parody for a comedy website.</td>
</tr>
<tr>
<td>3 (ED)</td>
<td>An astronaut delivers a popular commencement address at a large public university; she talks about the importance of the manned space program. The lecture is published on a free online service that requires special software be installed on the viewer’s computer (the service also provides for-pay content via this delivery vehicle). A geologist critical of the manned space program blogs a rebuttal.</td>
</tr>
</tbody>
</table>
saving/sharing a recorded conversation
remixing conversation

- Bill can share funny remix with friends:
  - Strongly disagree
  - Disagree
  - Slightly disagree
  - Neutral
  - Slightly agree
  - Agree
  - Strongly agree

- Bill can publish funny remix:
  - Strongly disagree
  - Disagree
  - Slightly disagree
  - Neutral
  - Slightly agree
  - Agree
  - Strongly agree

- Bill can publish answers with "how to" commentary:
  - Strongly disagree
  - Disagree
  - Slightly disagree
  - Neutral
  - Slightly agree
  - Agree
  - Strongly agree

- Bill can publish answers:
  - Strongly disagree
  - Disagree
  - Slightly disagree
  - Neutral
  - Slightly agree
  - Agree
  - Strongly agree

- Kyle can publish answers and identifying tags:
  - Strongly disagree
  - Disagree
  - Slightly disagree
  - Neutral
  - Slightly agree
  - Agree
  - Strongly agree
permission v. acknowledgment

Kyle must ask Bill before including Bill's answers

Kyle must acknowledge Bill but does not need permission

Kyle can include Bill's answers in his publication
Reuse in principle

• From our past studies, we know personal experience with reuse crucially shapes attitudes.
• So... along with asking specific questions about video reuse, we asked participants in VC study:
  – “What do you think about the reuse of content on the Internet? When is it okay? When is it a bad idea?”
• As expected, results were influenced by the study’s media type (recorded videoconferences)
• Results were open-coded to capture their primary perspective
a significant portion of participants (>1/2) say circumscribed reuse is fine (or that control is ultimately impossible)

• “...I like that the internet is still mostly unregulated and am against anything that regulates it like SOPA.” [VC191]

• “Be very careful and be certain it is not anything you care deeply about because once it is out there it is no longer yours to control.” [VC056]
What do participants take into consideration to reason about rights?

<table>
<thead>
<tr>
<th>Production context</th>
<th>Reuse context</th>
</tr>
</thead>
<tbody>
<tr>
<td>• permission or consent</td>
<td>• imposed anonymity</td>
</tr>
<tr>
<td>• scope</td>
<td>• good intentions</td>
</tr>
<tr>
<td>• notification</td>
<td>• libelous intentions</td>
</tr>
<tr>
<td>• public space</td>
<td>• personal use</td>
</tr>
<tr>
<td>• expectation of privacy</td>
<td>• limited distribution</td>
</tr>
<tr>
<td>• misuse</td>
<td>• misuse</td>
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<tr>
<th>Content</th>
<th>Law or technology affordances</th>
</tr>
</thead>
<tbody>
<tr>
<td>• personal</td>
<td>• technology dictates use</td>
</tr>
<tr>
<td>• confidential</td>
<td>• legal regulation</td>
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<tr>
<td>“…I say you would need … to let them know ahead of time that it could be shared. I don't think it is ok to post any recording if someone in it is unaware…” [VC171]</td>
<td>“…it is a bad idea when it involves a situation like the one this survey was about because it may allow people to get jobs which they are under-qualified for.” [VC091]</td>
</tr>
<tr>
<td>Content</td>
<td>Law or technology</td>
</tr>
<tr>
<td>“…personal events should be kept private.” [VC059]</td>
<td>“It should be subject to the same regulations as e-mails: anyone who is a party should be able to do whatever they like with it…” [VC197]</td>
</tr>
<tr>
<td>“…as long as it does not violate non-disclosure…” [VC136]</td>
<td></td>
</tr>
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• participants
• quantitative results (i.e. responses to hypos)
• qualitative results
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Original plan: each study covers a different media type

✓ microblogging (e.g. Twitter tweets)
✓ photo sharing (e.g. Flickr)
✓ user-contributed reviews
✓ multimedia
  ✓ podcast
  ✓ recorded videoconferences
  ✓ educational video
✓ massively multiplayer on-line games
• social networks
5 things to think about

• social media/web content rights are inherently complicated

• experience with the media type matters crucially!
  – how people reason about media depends on their own experiences with reuse
  – resolving tension between restrictive aspirational norms and constructive aspects of current practice

• minor features of the situation matter too
  – e.g. cloud storage v. local storage

• people are sensitive to characteristics of reuse context
  – e.g. unfairness (reuse that omits negative reviews)

• technology design and labeling schemes must take all this into account without being overly literal.
  – it might help to use hypotheticals in these situations
microblogs, e.g. Twitter

photos, e.g. Flickr

reviews, e.g. Amazon, Yelp

videos, e.g. YouTube

institutional archiving

research method
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http://www.csdll.tamu.edu/~shipman
http://twitter.com/ccmarshall