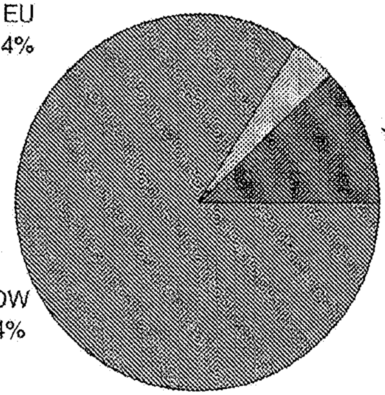
Placeholder – need to update/Appendix

International production of television content is significantly larger than the US and EU, i.e., even within "premium television content" there is a long tail of content from different countriel

Worldwide Television Annual Production Distribution[1]



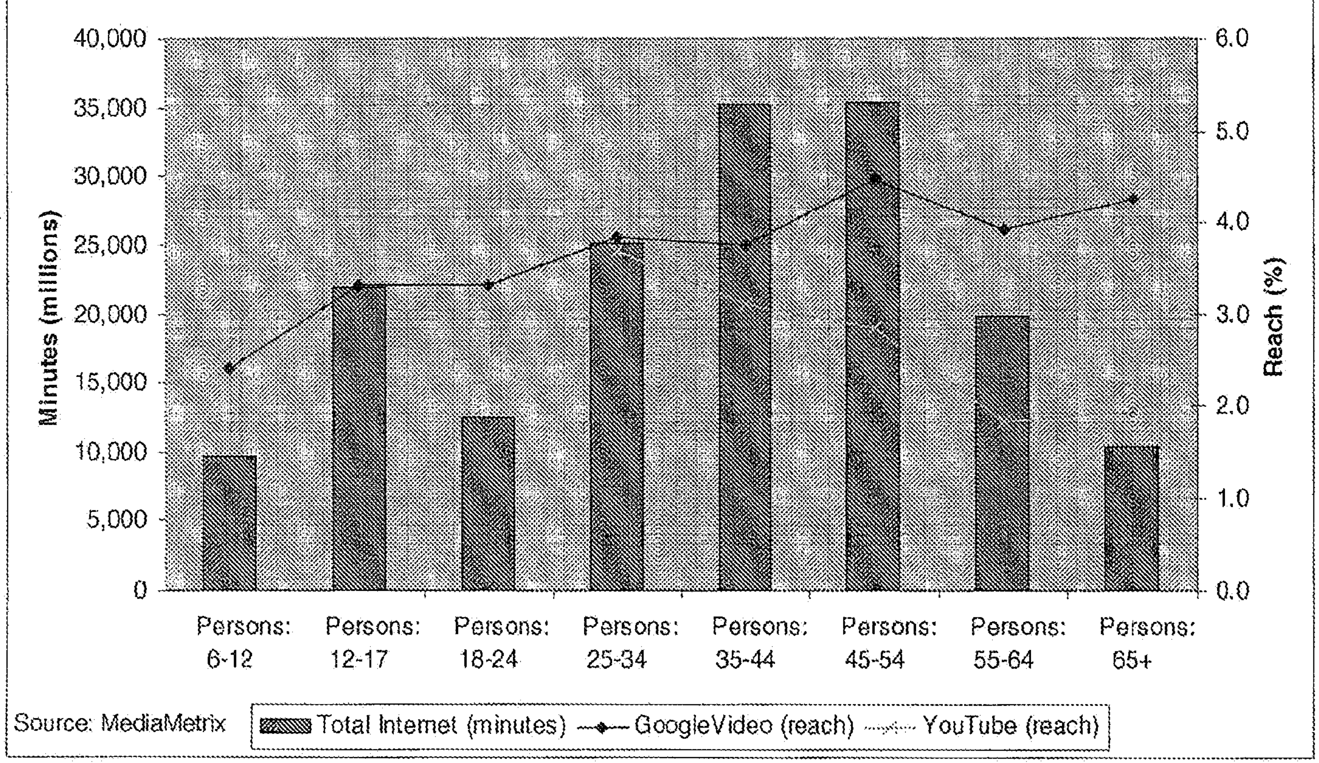
Total Annual Storage: 40,300 TB

Source: *How Much Information 2003*, UC Berkeley SIM; *Program Diversity and the Program Selection Process on Broadcast Network Television*, FCC.

Note (1): US distribution estimated based on 2002 prime time share of programming hours

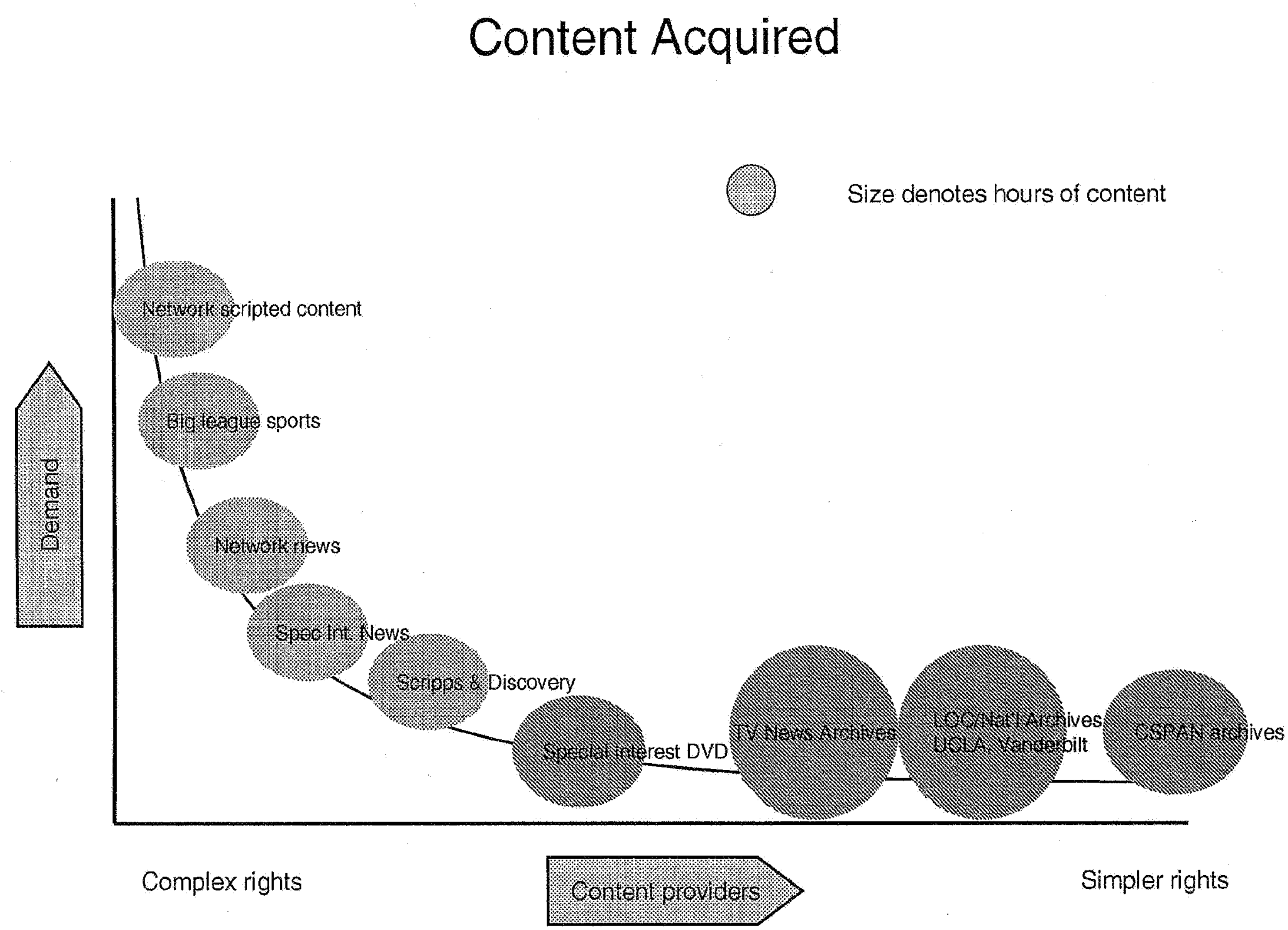
Who are our target users? What type of experience do we want to create for those users? Why do they look for video online?

Home Internet Usage Patterns by Age Group Relative to Market Penetration (Reach) -- March 2006



Once we "catch up" to YouTube in its appeal to a younger demographic, which features should we explore next to capture larger segments of the market?

Placeholder – need to update (Wendy Chang)



Map of Content Verticals Identified

Entertainment and Premium Content
- Major film companies (e.g., 20th Century Fox, Warner Bros., etc.) **[ALL]**
- Major television networks (e.g., ABC, NBC, CBS, Fox) **[ALL]**
- Independent film companies (e.g., The Weinstein Company, Spyglass Entertainment) **[PI]**
- Production companies (e.g., Endemol, Granada) **[PI]**
- Independent Producers (e.g. Charlie Rose) **[PI, JL]**
- Entertainment cable networks (e.g, A&E, Showtime, HBO, OLN) **[JL]**
- Sports leagues
- Talent agencies **[PI]**
- Music Labels **[JL]**

News and Information
- News networks (e.g., ABC News, CBS News, Fox News) (Note: Based on each partner's org structure, this may be included in the above vertical) **[DB]**
- News cable channels (e.g., Bloomberg, CNN) **[DB]**
- Information cable channels (e.g, Discovery, Scripps, PBS) **[JL for now, may be MS]**
- Lifestyle/HowTo/DIY (e.g. Akimbo content) **[MS]**
- Niche programming (e.g., expat sports, bollywood films) **[MS]**
- Alternative News Networks (e.g., Democracy Now)/Public Advocacy Sources (e.g. Greenpeace, Amnesty) **[DB]**
- Citizen Journalism/Video news blogs **[DB]**
- Video Libraries/Archives/Museums** (e.g., NARA, Smithsonian, Academy of Television Arts and Sciences) **[DB]**
- University Lectures **[PI]**
- Instructional/Corporate Videos

Film/Tape Archives
- Government
- Private Film Archives
- Museum
- News Archives

Vertical prioritization analysis

- Who are the top companies in each target vertical?
- Do we already have these companies in the pipeline/with a deal?
- Which companies are left to target?
  - Has someone else already a deal? (at the moment, iTunes deals move to the front of our queue – is it more important to catch up, or differentiate?)
- Who to contact (function, title, location…)
  - Content team can pull tel #/email more easily than us…

Vertical prioritization Next Steps

1) do our own market analysis of what people want to watch online in an IDEAL world where they could get any and all content. in this analysis, find out what are the necessary requirements for them to want certain types of content. e.g., to watch longer form content, will they need a direct connection to their TV?, will they pay for certain types of content and not others?

2) are there certain niche verticals users will pay a premium for? the anecdotal evidence we have here says yes. A&E told us that civil war and WWII folks pay easily for this content. in addition, we know that certain business and medical lectures are sold for a premium. what other verticals are there in this bucket?

3) do an indepth logs analysis of google.com and google video to find out what people are querying about. again, once we get search fixed, and we get one box, we believe we'll have significantly more traffic based on search.

4) after finding out #1 - #3, figure out what companies/orgs have this data. the cuts onpage 17 of the biz ops brainstorm is great for the standard partner team, but it's not as helpful for hte premium team. for instance, A&E has drama, biography, history, etc,, Dartmouth has lectures and speakers on several topics. we should figure out in addition to specific topics what types of companies hold htis data. this is how we came up with our original verticals.

5) finally, be true to google's core of experimentation. that is why EMG supported the NARA deal and our idea of going after the long-tail content. so, in addition to focusing perhaps 50% of our efforts on data-driven verticals (e.g, most popular now, most popular in the future, easiest to do deals, etc.), we should have 50% based on sprinklings across multiple verticals. this is how we'll really find out what people are interested in, especially when we have ads.

3. Who and what are we competing against? (Grace, Dave)
    - Why do we consider them competitors?
    - How do we compare?
    - What are we competing for?
    - What can and can't we do in Content Acquisition given current product features and roadmap? (Jennifer, Grace, Dave)
        - Without disconnected DRM, can't do many DTO deals
        - If we relax copyright enforcement policies, this will jeopardize relationships with premium content owners
        - Etc., etc.

Backup/placeholder

Competitive update

Leadership in online video services

- MSN Video site offering searchable video from MSNBC, NBC, Showtime, Food Network, HGTV, Fine Living, Fox Sports, NASCAR, MLB
- Suite of technology, content and content distribution assets: Windows Media format & DRM, MSN Movies, MSN TV site, MSN TV hardware, Microsoft TV, Microsoft Windows Media Center, Portable media players, Comcast relationship, IPTV relationships with SBC, Verizon
- Windows Media codec support in 500 CE devices

- Indexes television and radio; links to playback on websites
- Speech to text used to develop transcripts
- Large # of major content providers represented

- Relevant properties: Yahoo TV, Yahoo Movies, ET Online, Apprentice, Yahoo Video Search (beta), JibJab
- Yahoo Living Room internal effort
- Experimenting with closed captioning search over TV content

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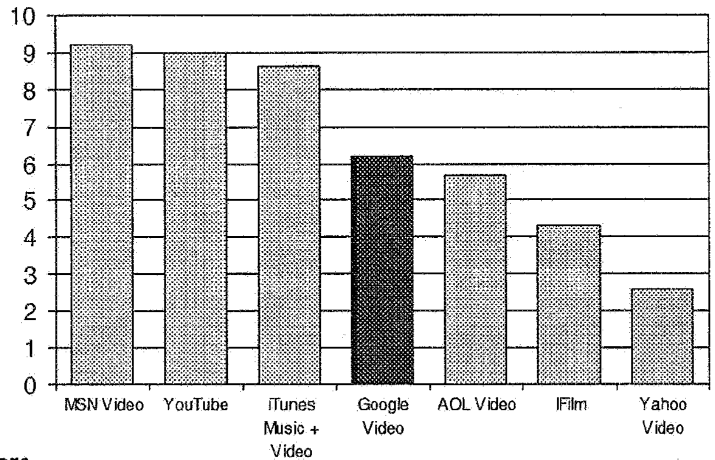
television

- Watch clips of last night's popular programs online for free.
- Singingfish crawls the web for multimedia content (including audio)

Placeholder – need to update

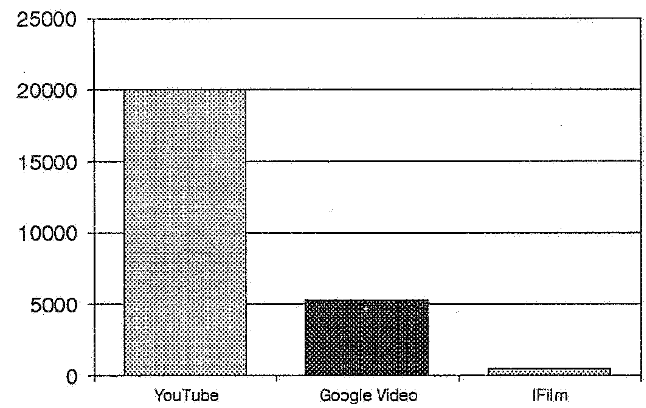
Today users spend time on…

Unique Visitors per Month (Millions)



Page Views per day	1.3M	6.3M	0.9M	2.7M	0.9M	1.9M	2.4M

Video Uploads per Day



Sources: Neilsen, Mediametrix, Google Video Dashboard

Backup/placeholder

Comparison of video efforts

	Overall Market			Google Position		
	User experience today	**Current market leaders**	**Future technology advances**	**Google advantage?**	**Current resource** (FTEs now->ongoing) **deployment**	**Monetization potential?**
Search	• Too few results – much video hidden • Have to hit multiple sites to find content • Results quality poor – many mismatches • Insufficient info about results (is it a playable video, even?) • Viewing experience inconsistent	• Yahoo Video Search • AOL Video	• Inferred metadata – OCR on credits and captions – Scene changes – Object recognition • Video as extracts – Find info within video • Connection to video.google.com – Onebox	• Yes – requires top tech – Research – Images data – Processing power • Yes – have bulk traffic and monetization of search, web crawl • AOL partnership (Truveo?)	• Engineering: 3 *(Jeremy) – note should be zero according to PC* • Search quality: 2 on ranking, some fraction of 3.5 on universal search *(Bill Br)* • PMs:	• Builds on existing AdWords model for google.com – extends universe and relevance of search results
Monetize	• Banner ads are typically an unwelcome distraction from content • Pre-rolls are annoying – particularly for short clips and search-within-clip	• AOL Video (premium ads with In2TV)	• Better contextual ad targeting	• Existing AdSense network • Ad targeting technology	• Engineering: ??5 FTEs • 3.5 FTEs on video ads *(Jill)* • PMs:	• Opens up AdSense to premium advertisers who require multimedia experience
Entertain	• Back-to-back play on Google Video	• Equivalents: –Broadcast TV channels –Internet radio	• More bandwidth • Clever compression • Channel targeting systems • Mobile video	• dMarc for easy ad play?	• Engineering: 2 *(Jeremy)* • PMs:	• Could build on dMarc expertise? • Could pick up existing offline ad content
Host/ Enable Payments	• Improving interface at iTunes and Google • Pricing inconsistent across sites • Insufficient content • Pre-rolls are annoying	• iTunes (host and payment) • YouTube (host only, no payment) • Google (host, pay enabled for limited content) • NetFlix, Blockbuster (offline only)	• Added content • More DRM options • Improved viewing tools • Mobile video	• Not for Premium – less clout for multi-channel content partnerships than other players • Yes for Standard –have payments, public/private/edu links • Yes for Free – have storage capacity for long tail	• Engineering: 14.7+ ->11.7+ • Store: 2 (6mos)->1 *(Jeremy)* • CSO • PSO: 6.7 *(DanZ)* • Player/DRM 6 (9mos)->4 [illegible]	• Premium content-owner requires pay-per-view – limits ad revenue potential (content owner restrictions on ad choice further reduce $s) • Free can support ads

Placeholder - Jennifer

What we can't do with current product roadmap

- Many content owners won't do deals without:
  - Disconnected DRM/limited downloads/limited devices
  - Sharing store analytics and recommendation engines information
- Many content owners want to explore multiple monetization options beyond DTO
  - Currently "Tipjar" or text ads monetization trials are not on roadmap
- GV ability to make content universally accessible is limited without title/description/metadata translation, subtitle translation, dubbing
- GV vision to offer most comprehensive video offering would be enhanced with improvements in video web search
  - Specifically, improvements in metadata extraction and search/browse/rank
- GV capability to digitize from film (as opposed to tape) is limited **[more details from Grace]**

4. How do we win?

GV can use scale and expertise to have most comprehensive content offerings – from head to tail

- Content types: premium, user generated, torso - which is key differentiator (show curve and add comments)
- Content genres/verticals: entertainment, sports, lifestyle/how to/DIY, archives, news, education, niche, etc. (Jennifer, Grace, Eva/Jon, Dave)

GV can be best user experience

- Improve search not just hosted content but for all web video content
- Provide linkages such as RSS feeds and one-box integration in meantime
- Drive open standards and distribution deals so users can consume content across multiple devices, especially linking PC to TVs

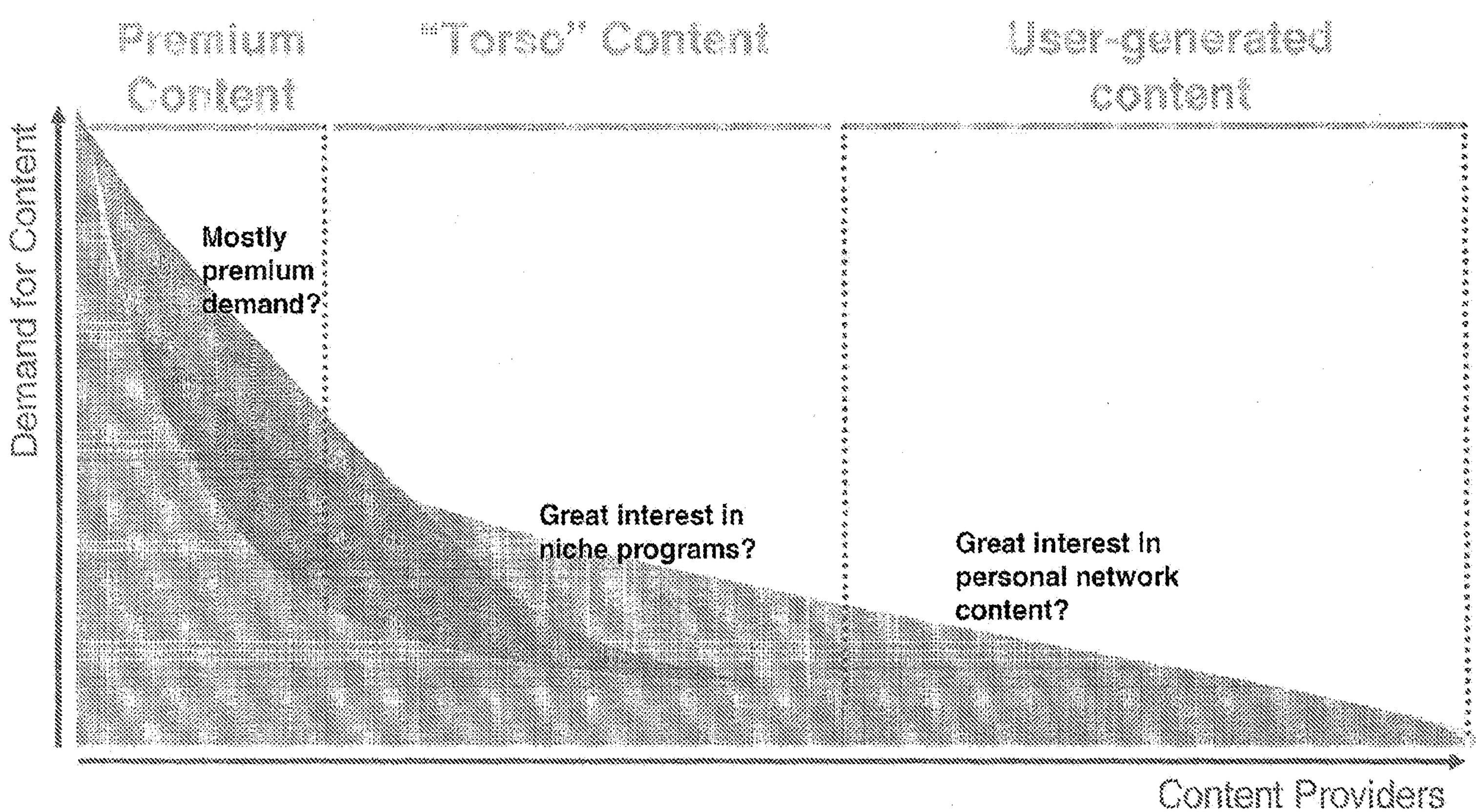
GV can be best partner to content owners

- Respect copyrights of premium content owners (we should beat YouTube by improving features and user experience, not being a "rogue enabler" of content theft)
- Provide best in class marketing/promotion of content, particularly "event" programming: Online Film Festivals; supporting "Tentpole" movie and tv shows launches; Superbowl ads; Oscar trailers/content; (Jennifer, Eva/Jon, Dave)
- Provide a platform for promotion and distribution for torso content owners who have professional content but limited access to audiences
- Provide community tools for voting, rating, tagging, commenting, recommending, mashing, etc. and give access to all types of content, including select premium/torso content

GV can provide multiple monetization options (Advertising; Sponsorships; DTO) and leverage expertise in Advertising in particular

- The way to win ultimately is in providing multiple monetization options, particularly advertising which can be applied across all content types

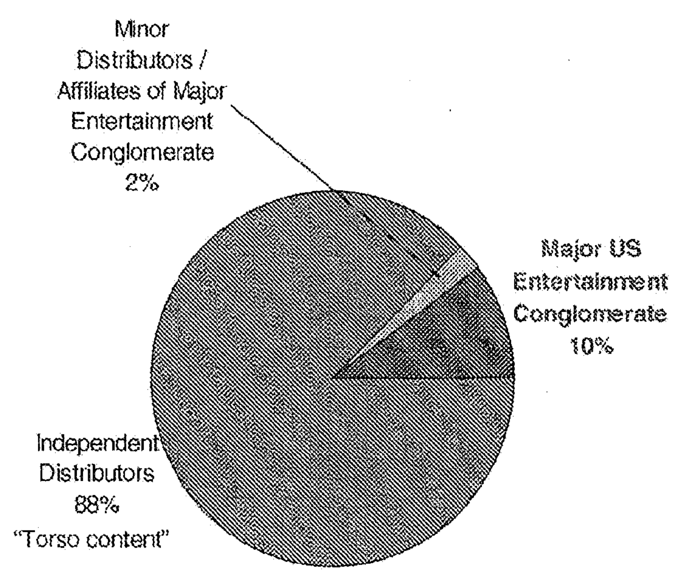
GV can use scale and expertise to have most comprehensive content offerings – from head to tail – and influence overall consumption curves



Backup/placeholder – to make point about importance of Torso content

If comprehensiveness is ultimately how Google wins, then Google's ability to acquire "torso" content will be the differentiating factor

Worldwide Film Inventory Distribution



Total Inventory Storage: 721 TB

Source: *How Much Information 2003*, UC Berkeley SIM; International Film Index; Internet Movies Database.

Placeholder – Dave/Jennifer

2006 Content acquisition team priorities

- Maintain relationships with premium content owners:
  - Take advantage of improved browse/search/promotion capabilities
  - Seek "improved DTO" deals with dynamic homepage and one box integration
  - Drive traffic through "event" programming
  - Seek promotional content (movie trailers, behind the scenes, first 8 minutes, streamed premiere tv episodes, commercials)
  - Set up advertising trials
- Accelerate growth of "torso" content:
  - Take advantage of GV ability to offer promotion, traffic, tools for premium content owners who don't have scale
  - Take advantage of more relaxed DRM requirements among this class of owners
  - Realize very few competitors will have resources or expertise to identify and close large volumes of torso content
- Acquire content with more international appeal
  - Other dubs/subtitled versions of existing content
  - Language-independent, broad appeal content (no voiceover)
  - Content created in Spanish, French, Dutch, Chinese, Portuguese, German, Italian, Polish, Japanese from non-US providers
- Digitize NARA tape archives and other compelling video assets

Views of Premium Content Owners

On YouTube:
YouTube is perceived as trafficking mostly illegal content – "it's a video Grokster"

Because YT is not making money and not negatively impacting sales of DVDs or other revenue streams -- yet, content owners consider them a de facto promotional platform, but are monitoring them closely

Just because content owners haven't taken more aggressive actions against YT and others to protect their assets doesn't mean they won't; they likely will

YT is seen as a small startup with no cash

On Google:
Google is considered a "real company" that appreciates what it takes to build billion dollar businesses, so expectations of Google are different

But Premium Content owners still don't know whether Google is friend or foe

If Google were to facilitate the theft of copyprotected assets owners have invested in, then it would significantly impair Google's ability to work with owners in the future

Google is a deep pocket and therefore worthy of a precedent-setting lawsuit

Premium content has wide appeal worldwide; no matter how consumers feel about user-generated content there will always be a need for premium content

On Monetization:
Want to explore DTO and create alternative to iTunes, but want disconnected DTO, lower download limits and more effective promotion

Agree that advertising has huge potential and want to work with Google

Are willing to explore lots of different approaches and don't expect to make a lot of money – now; emphasis is more on learning and signaling to Wall Street that they are figuring out how to migrate business models to the web

Video monetization possibilities

1 Sponsored Video – requires high-touch premium content to premium advertiser matching – needs top content and TV-style CPMs to work

Sliding scale of ad frequencies as video gets longer	# of people interested in seeing video*	$ amount advert'r will pay		movie length (mins)	minutes per ad	# ads per stream	advertising cut to content owner	$ value to content owner	$ each advertiser pays
		CPM	Per stream						
911 Loose change	4,560,448	$ 10.00	$ 0.01	82	15	5	75%	$ 171,017	$ 45,604
Amazing juggling	2,521,234	$ 10.00	$ 0.01	2.5	2	1	75%	$ 18,909	$ 25,212
Airbus build plane	412,772	$ 10.00	$ 0.01	7	3	2	75%	$ 6,192	$ 4,128
Octopus eats shark	201,412	$ 10.00	$ 0.01	2.5	2	1	75%	$ 1,511	$ 2,014
Jessica Simpson - These boots are made for walkin'	10,000,000	$ 10.00	$ 0.01	4.1	2	2	75%	$ 150,000	$ 100,000

2 Tip Jar – "busker" or "shareware" model may deliver strong incentives to user uploaders but nothing to corporate partners (Google would pass through all fees)

Tip jar	# of people interested in seeing video*	Fraction who will tip	Average tip	$ value to content owner	Rationale for tipping guesses
911 Loose change	4,560,448	5%	$ 2.00	$ 456,045	Big tip for charity or interest group: long highly-edited video, engaged viewers
Amazing juggling	2,521,234	2%	$ 0.50	$ 25,212	Viewers impressed - see single beneficiary with talent
Airbus build plane	412,772	0.10%	$ 0.02	$ 8	Low tip rate - corporate promo video
Octopus eats shark	201,412	2%	$ 0.25	$ 1,007	Viewers impressed - see single beneficiary with good content
Jessica Simpson - These boots are made for walkin'	10,000,000	0.10%	$ 0.25	$ 2,500	Low tip rate if its thought tip goes to Sony

3 Text ads – familiar Google technology accessible to smaller advertisers can monetize standard partner and user content (Google could keep a fraction of ad revenues)

Text ads with click-throughs	# of people interested in seeing video*	CTR	CPC	movie length (mins)	minutes per ad group	# ads on screen at a time	# ads per stream	$ value to content owner	$ value to content owner	$ each advertiser pays	clicks each advertiser sees
911 Loose change	4,560,448	0.50%	$ 0.25	82	15	4	20	75%	$ 85,508	$ 5,701	22,802
Amazing juggling	2,521,234	0.50%	$ 0.25	2.5	2	4	4	75%	$ 9,455	$ 3,152	12,606
Airbus build plane	412,772	0.50%	$ 0.25	7	3	4	8	75%	$ 3,096	$ 516	2,064
Octopus eats shark	201,412	0.50%	$ 0.25	2.5	2	4	4	75%	$ 755	$ 252	1,007
Jessica Simpson - These boots are made for walkin'	10,000,000	0.50%	$ 0.25	4.1	2	4	8	75%	$ 75,000	$ 12,500	50,000

* based on April 2006 actual playbacks (except Ms Simpson)

Source: Playbacks and movie length real data (apart from Ms Simpson); all else "what-if" analysis by BizOps

Appendix

Backup/placeholder

Potential Content Segments/Verticals

Cars	manufacturers	**Religion**		**Music**	Choirs	**Hobbies**	Arts & crafts
	oil cos	**Sports**	Baseball cards		orchestras		Animal
	classic car groups		Olympics		theater companies		Motorcycling
	car magazines		leagues		opera companies		quilting
	AAA/RAC/AA		teams		instrument manufacturers		angling/bass fishing
	mechanics		channels		academies		shooting/hunting
	kwik-fit/jiffy lube				bands		poker/cards
	unions	**News**	news cos		recording studios		games
					record labels		skiing
Homes	realtors	**Movies**	Film companies		auctioneers of famous instruments		sailing
	home sellers		studios				running
	DIY stores		actors	**Travel**	chambers of commerce		walking
	lumber yards		agents		local tourist agencies		golf
	home and garden channel				airlines		writing
	landscape gardeners	**TV stations**			hotels		martial arts
	painters				tour companies		collecting
	paint companies	**Industry Associations**			cruises		swap meets
	Martha Stewart				airports		
	solicitors/title companies	**Schools**			ports	**Conventions**	Magic
	surveyors				transit authorities		scifi
	mortgage banks	**Government**	Departments		ferries		star trek
	surveys on prices		Local/State/Federal		TV channels - editorial on travel		DnD
	construction cos/builders				Travel writers e.g. Rick Steves		
	local authority planning depts	**Ad agencies**			Local development agencies	**Food**	Cooking groups
	permit authorities				Bicycle manufacturers		restaurants
	plumbers	**Publicity-seeking individuals**			Cyclist groups		cooking on TV
		Individual podcasters					farmers/farms
Utilities	Oil cos			**Minority in**	Lesbian/bi/gay/trans		agribiz
	Nuclear	**Unions**			African-american		
	Electricity				Women	**Universities**	Fraternities/Sororities
	Gas				seniors/retirees		Intercollegiate competitions
	Solar				veterans		Research output - simulations dissertations
	Wind				disabled		Recruiting - undergrads, PhDs, uni vs dept
	Detractors from various utils				Asian-american		Sports teams
					Latino		Presentations/award ceremonies
Children	TV channels				Expat *** in ***		Graduation ceremonies
	Movie studios						On-campus speakers
	Toy companies			**Pharma**	Clinical trials results		Alumni events
	Public service education				Directions for use		online classes
	Sesame Street				Ads-DTC		film and tv class exercises
	Parenting - health & social servs				presentations to docs		theatre class productions
	Drug cos				continuing education		debates
					compliance for health care workers		ultimate frisbee
							engineering/solar power competitions
							self-help/medical for depression, drugs...
							time management for research
							internat onal student offices
							public service/volunteering groups
							events

Backup/placeholder

Prioritization of effort to get content deals by vertical – proposed scoring system

Vertical	Interest to user	Industry revenues	Industry concentration	Emphasis on/amount of video content	Willingness to share video	Overall score
Example: entertainment - circuses	*7*	*3*	*10*	*7*	*10*	*Weighted total* $\Sigma = 72$
Purpose	Do our users want to watch the video?	How important is this industry?	Is the value of the companies in a deal worth a phone call or should we just bulk email instead?	Is there much richness of video here?	Will anyone actually sign the deal?	
Direction and Scale	Scale linearly with demand (search volume)	Score in exponential ranges 1-10	Score = % of revenues held by top 10 players/10	Subjective score from 0 (never make videos) to 10 (video is their business)	Regulation and secrecy of industry vs desire for publicity	
Weighting	5	1	1	2	1	
Source	Google.com and video.google search data; news reports, blogs, Neilsen TV ratings	US Census data (2002)	US Census data (2002)	From team discussions	From content team feedback – adjust over time	

Where do we fit today's 2006 marketing plan in as a consideration/weighting?

Content: Example of vertical concentration ranking

2						
3	Sector 71: Arts, Entertainment					
5	2002 NAICS code	Meaning of 2002 NAICS code	Concentration Ratio Code	Year	Receipts/revenue ($1,000)	Sales of top firms as a % of Total Industry Revenue
36	7111901	Circuses	4 largest firms	2002	$133,966	8.3
41	7131102	Amusement parks (except waterparks)	4 largest firms	2002	$6,523,452	7.0
67	7112122	Auto racetrack operation	4 largest firms	2002	$1,380,430	39.0
86	7131101	Waterparks	4 largest firms	2002	$236,868	19.3
98	7112121	Dog racetrack operation	4 largest firms	2002	$427,820	41.3
113	7111101	Opera companies	4 largest firms	2002	$338,430	45.7
119	7132901	Slot machine operators	4 largest firms	2002	$739,359	42
132	7112123	Horse racetrack operation	4 largest firms	2002	$1,471,452	38.4
136	7111103	Dinner theaters	4 largest firms	2002	$147,543	41.3
144	7111909	Other performing arts companies (except circuses)	4 largest firms	2002	$142,242	[illegible]
166	7112101	Professional athletes	4 largest firms	2002	$112,278	28
288	7132902	Lottery, bingo, bookie, & other betting operation	4 largest firms	2002	$1,130,115	22.5
294	7112112	Baseball clubs	4 largest firms	2002	$731,024	19.2
336	7111301	Symphony orchestras & chamber music organizations	4 largest firms	2002	$250,001	19.1
386	7139901	Dance halls	4 largest firms	2002	$16,695	18.1
391	7112119	Other professional sports teams & clubs	4 largest firms	2002	$836,536	17.6
400	7139905	Coin-operated amusement devices (except slot machine operation)	4 largest firms	2002	$256,680	16.4
426	7139409	Other fitness & recreational sports centers	4 largest firms	2002	$2,261,596	16.1
432	7139902	Concession operators of amusement devices & rides	4 largest firms	2002	$65,357	15.2
440	7112111	Football clubs	4 largest firms	2002	$689,806	15.1
446	7112192	Racing (except racetrack operation)	4 largest firms	2002	$305,458	14
652	7111102	Theater companies	4 largest firms	2002	$556,289	11.2
692	7139904	Miniature golf courses	4 largest firms	2002	$29,759	7.3
742	7139404	Ice skating rinks	4 largest firms	2002	$28,191	6.9
804	7111309	Other music groups & artists	4 largest firms	2002	$173,577	5.9
1047	7139405	Roller skating rinks	4 largest firms	2002	$15,375	1.5
1082	7139909	All other miscellaneous amusement & recreation services	4 largest firms	2002	$106,134	1.1
1096						

Sheet2 / IBQDownload

As we tee up suitable approaches for marketing to reach the content owners, horizontal groupings may also be useful

Organizations have reasons to make video...

Sell	product
	service
Recruit	employees
	students
Raise funds	Charity
	politics
Teach	children
	adults
Train	employees
	users/drivers
Safety	consumers
	product users
	public
Promote/justify	Religion
	industry politics/interests
	cause awareness
Record/Archive	Event (personal)
	Event (social)
	Event (natural)
	Sequence (project)
Compete	ideas
Peer review	Academic seminars
	Conferences
News/Editorial	
Entertainment	
Ads	multi languages
Language translation	employees
	New markets
Fame!	

...and functional owners for the content

Job Title Keywords

HR	recruiting
	health & safety
	training
	relations
	compliance
Marketing	brand
	marketing
	product
	promotions
	publicity
	events
	fundraising
	alumni
	sponsor
Membership	membership
	affairs
	outreach
Writing	editor
	localization

Stats on the competition

	Google Video	AOL Video	Yahoo Video	iTunes Video	YouTube	IFilm	Blinkx.tv	MSN Video
Unique visitors per month	• 6.2M *Feb 06 Nielsen*	• 5.7M *Feb 06 Nielsen*	• 2.6M *Jan 06 MediaMetrix*	• 8.6M *(includes video and audio) Jan 06 MediaMetrix*	• 9.0M *Feb 06 Nielsen* • 5M per day *YouTube CEO ZDNet Blog 3/14/06*	• 4.3M *Feb 06 Nielsen*	• 16K *Feb 06 Nielsen (insufficient sample size for reliable estimate)*	• 9.2M *Feb 06 Nielsen*
Page views per day	• 15.7M *3/24/06 Video Google Internal Dashboard* • 2.7M *Feb 06 Nielsen*	• 945K *Feb 06 Nielsen*	• 2.4M *Jan 06 MediaMetrix*	• 900K (includes audio and video) *Jan 06 MediaMetrix*	• 6.3M *Feb 06 Nielsen*	• 1.9M *Feb 06 Nielsen*	• N/A	• 1.3M *Feb 06 Nielsen*
Videos streamed per day	• 8.7M *3/8/06 Google video dashboard*	• <8M based on 8M queries/day *MediaPost 6/9/05*	• N/A	• >100,000 *750,000/wk: paidcontent.org*	• 25M+ *YouTube About Us 3/24/06*	• 1M est. based off of ifilm.com claim of 30M+ videos streamed monthly	• N/A	• N/A
Videos in inventory	• 525,890 on *3/8/06 Google video dashboard*	• 18,000 licensed VOD • 20M indexed *MediaPost 6/9/05* • Includes extensive library of Time Warner content	• Est.16M indexed *3/27/06*	• 3,000 for sale • 35,000 podcasts (includes audio and video) *3/27/06 iTunes.com*	• N/A	• Claims "largest collection of viral and user generated video along with [other] clips" *10/13/05 press release*	• 1M hours *3/27/06 Blinkx.tv* • est. 10M-20M videos indexed based on average clip length of 3-6 minutes	• N/A
Partners	• CBS • Charlie Rose • NBA • NBC Olympics • AOL	• Forbes.com • Blastro.com • EVTV1/com • PC World • GameTrailers.com • Google • AtomFilms • CSBnews.com	• TiVo • CBS • Bloomberg • Discovery Channel • MTV • Reuters • Home & Garden • The Food Network • VH1	• Disney • ABC • NBC • MTV • ESPN • Sci Fi Channel • Comedy Central • Nickelodeon • Showtime	• MTV2 • Matador Records	• News Corp • Sony • Time Warner • Walt Disney • Microsoft • HP • Dell • Intel • Others	• ITN • MIVA network • CNN • National Geographic • History Channel • HBO • ESPN • Others	• Associated Press • NBC • Showtime • AtomFilms • Digicast • Discovery Channel • NHL • LaffLink.com • Scripps Network • Weather.com • Weird TV
Uploads per day	• 5,208 on 3/8/06 *Google video dashboard*	• N/A	• N/A	• N/A	• 20,000+ *YouTube press release 2/14/06*	• 500 *3/13/06 NYTimes*	• "Thousands of hours added per week" *2/27/06 press*	• N/A

Total market: 17.95bn video streams in 2005 (46% music) *AccuStream iMedia Research*

Digitization analysis (NARA focus)

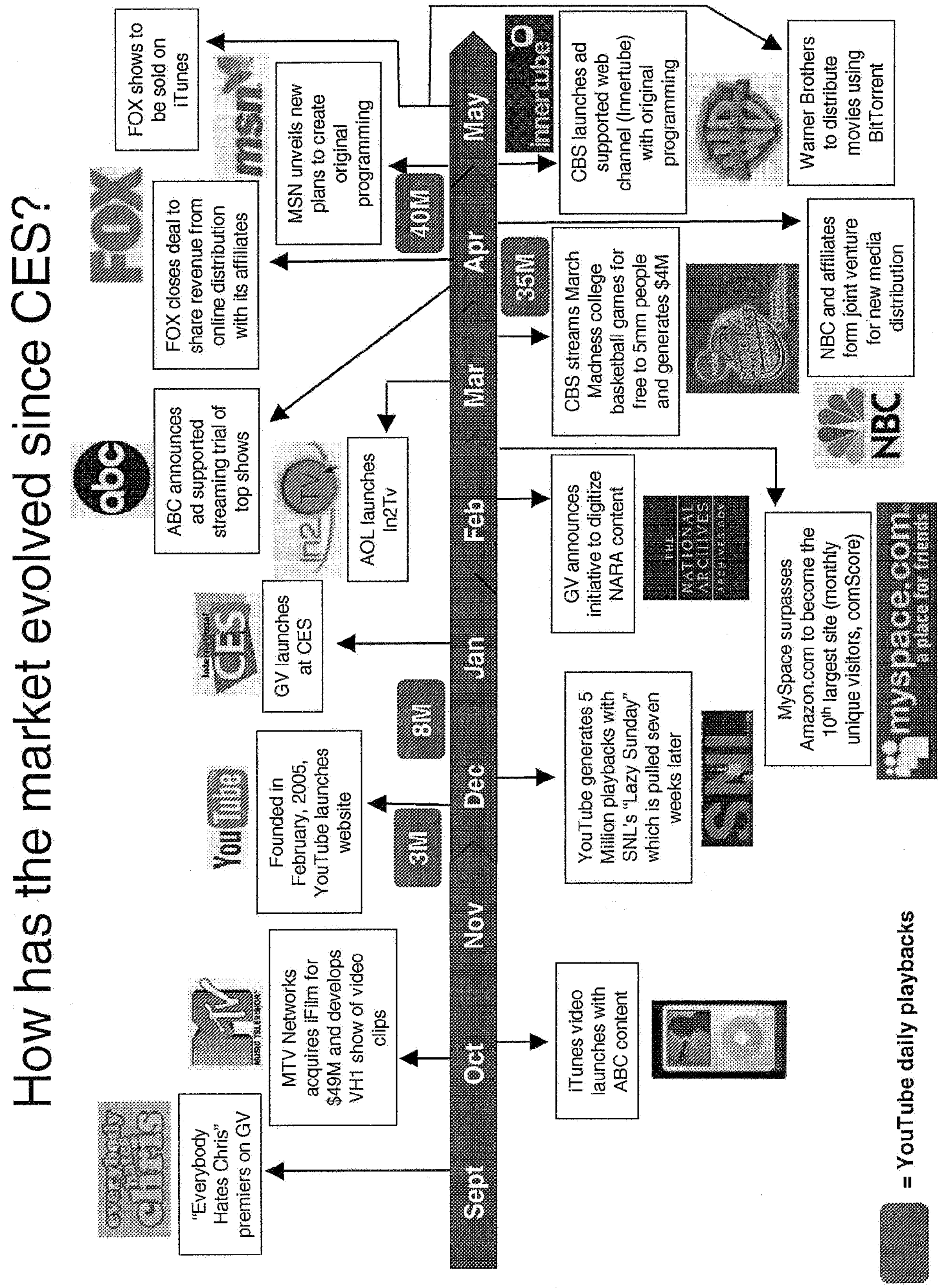
- Understanding/data gathering
  - Current pilot operations
  - Lessons learned from Print
  - NARA inventory by format
  - Process for acquiring used equipment (and overlaps in functionality between player formats)
  - Quality needed for archive format
  - Revisiting/updating cost model assumptions
    - labor (in vs outsource, on vs offshore by operation step)
    - equipment (acquisition, maintenance, expected life)

- Hypotheses we are testing
  - Appetite exists to tackle (what fraction of) archive content (with what monetization model)
  - Enough used equipment is available to start a larger-scale pilot operation to prove demand for the content
  - We could build our own (re-/de-specced) equipment with minimal Sony componentry which could offer more consistent performance than used equipment for a scale-up beyond NARA
  - We could take rewind offline onto a separate, basic machine (if machines are the constraint)
  - We could digitize all (NARA) tape first, then target specific film for higher-quality acquisition later (based on demand?)

3/9/2006

Content Acquisition Strategy Update

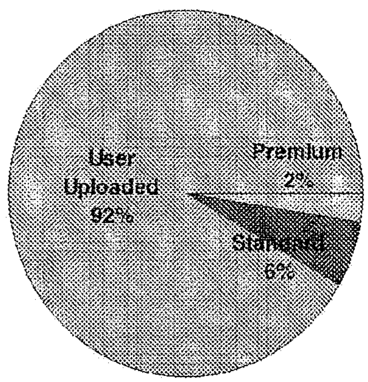
EXHIBIT
Ewn 10
8/7/08


How has the market evolved since CES?
Sept
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
"Everybody Hates Chris" premieres on GV
MTV Networks acquires iFilm for $49M and develops VH1 show of video clips
Founded in February, 2005, YouTube launches website
GV launches at CES
AOL launches In2Tv
ABC announces ad supported streaming trial of top shows
FOX closes deal to share revenue from online distribution with its affiliates
MSN unveils new plans to create original programming
FOX shows to be sold on iTunes
3M
8M
35M
40M
iTunes video launches with ABC content
YouTube generates 5 Million playbacks with SNL's "Lazy Sunday" which is pulled seven weeks later
GV announces initiative to digitize NARA content
MySpace surpasses Amazon.com to become the 10th largest site (monthly unique visitors, comScore)
CBS streams March Madness college basketball games for free to 5mm people and generates $4M
NBC and affiliates form joint venture for new media distribution
CBS launches ad supported web channel (Innertube) with original programming
Warner Brothers to distribute movies using BitTorrent
= YouTube daily playbacks

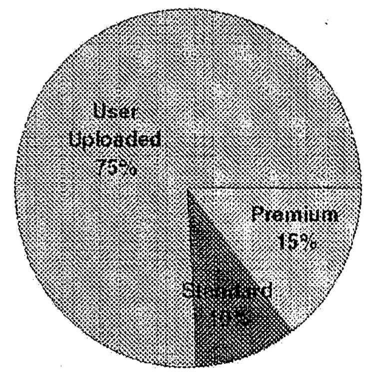
The inventory of acquired content includes all three content types

Acquired

Video Titles Live in Index (total 0.7MM)



Video Hours Live in Index (total 49K)



Sources: Content stats from VSPDB, Traffic stats from VCSDB – 05/08/06

Premium Content Owners – Lessons Learned

- They still believe their content is king
- They live by promotion, Google does not
- They don't like their content mixed with user-submitted content (better promotion is possible compromise)
- They feel sudden pressure to develop viable online models
- They realize that their #1 current threat is piracy, not cannibalization of current revenue streams through legitimate online use
- They want to "get in the game" and aren't solely focused on short-term revenue
- They want true distribution partner, not just technology platform
- They want to create new "online content" and want funding partners
- They acknowledge You Tube can provide some level of promotion, but (mainly) perceive You Tube as trafficking mostly illegal content – "it's a video Grokster"

Content Acquisition Challenges

Common complaints and deal hurdles from current and prospective partners:

- Disappointing DTO sales and support, and lack of product improvements
  - Significant delays in bringing time-sensitive content online (e.g., CBS and NBA)
  - Can't find partner content
    - Poor search quality, Poor basic browse functionality
    - Lack of content promotion
  - Delays in both one box and RSS integrations
- Apparent lack of understanding of premium partner needs/desires
  - Inflexible # of downloads (fixed at 10; partners want industry std 3-5)
  - Limited value of connected DRM, and no device support
  - Partners live by promotion; Google doesn't seem to get this whereas our competitors do
  - Lack of ad or other monetization models
  - Occasional mistakes in filtering copyright infractions
  - Inability to receive better store analytics and related information
  - Low priority of digitizing from film (vs. tape); also, "restricted site search" not on roadmap
- Perception that Google lacks strategic priorities or has priorities that conflict with partners'
  - Perception of focus on user-generated content
  - Lack of web crawl for video, esp. RSS
  - Appearance of GV as walled garden vs. "switchboard"
- Partners' own confusion and inability to migrate old models to the web

GV can differentiate and win by having most comprehensive content for users worldwide

Supply

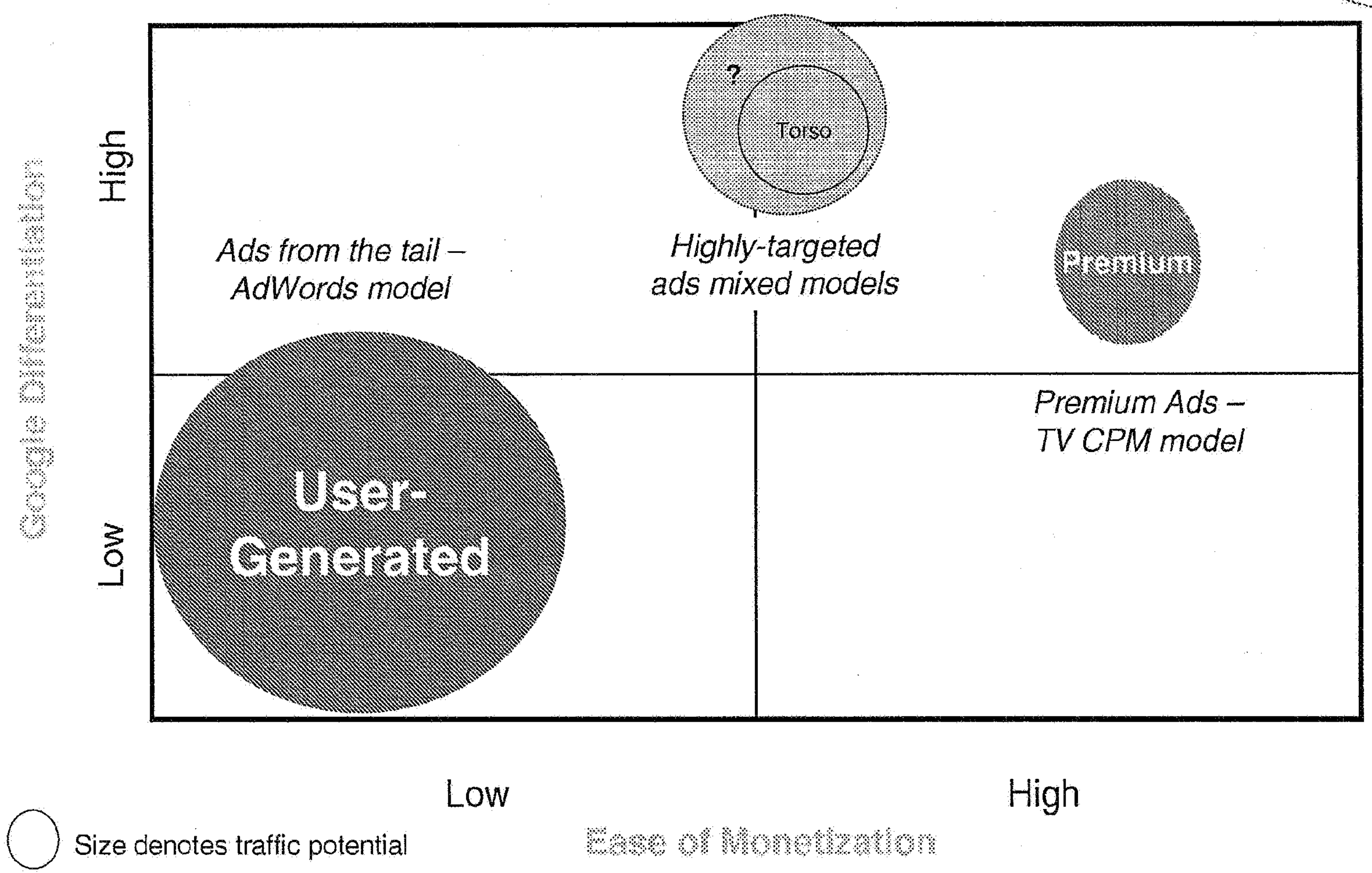
Premium	"Torso"	User-Generated
• Every TV /Major Cable network (CBS, ABC, Fox) • Movie studios • Music labels • iTunes • Yahoo • AOL • MSN	• Smaller cable networks • Educational/DIY • Special Interest verticals • Niche content • University Lectures • Archives (e.g., NARA)	• YouTube • MySpace • Grouper • Veoh • 100+ small sites

Demand

• Maintain relationships w/ premium owners and reset expectations • Focus on promotions and event programming • Do RSS feeds (when ready)	• Accelerate growth of torso content • Acquire more international content • Continue digitization efforts	• Develop community tools and explore deals to contribute premium content to user-generated activities

Monetization Potential of Different Content Types

ILLUSTRATIVE



Final Recommendations/Asks

<u>Asks of EMG:</u>

- Acknowledgement that premium content is being ***significantly deprioritized*** relative to initial CES focus (therefore, many prem. DTO deals won't close in 06)

- Agreement that ultimate goal should be providing most comprehensive content offering possible (head, torso and long tail), and help set timetable for head

- Need support to:
  - –build scalable ads model asap
  - –reprioritize RSS to be sooner than end of Q3
  - –build flexible DRM by end of Q4
  - –improve promotion of partner content asap
  - –Increase investment in tools and systems for copyright policy enforcement

Appendix

How do we win?

GV can use scale and expertise to have most comprehensive content offerings – from head to tail

- Content types: premium, user generated, torso - which is key differentiator (show curve and add comments)
- Content genres/verticals: entertainment, sports, lifestyle/how to/DIY, archives, news, education, niche, etc.

GV can be best user experience

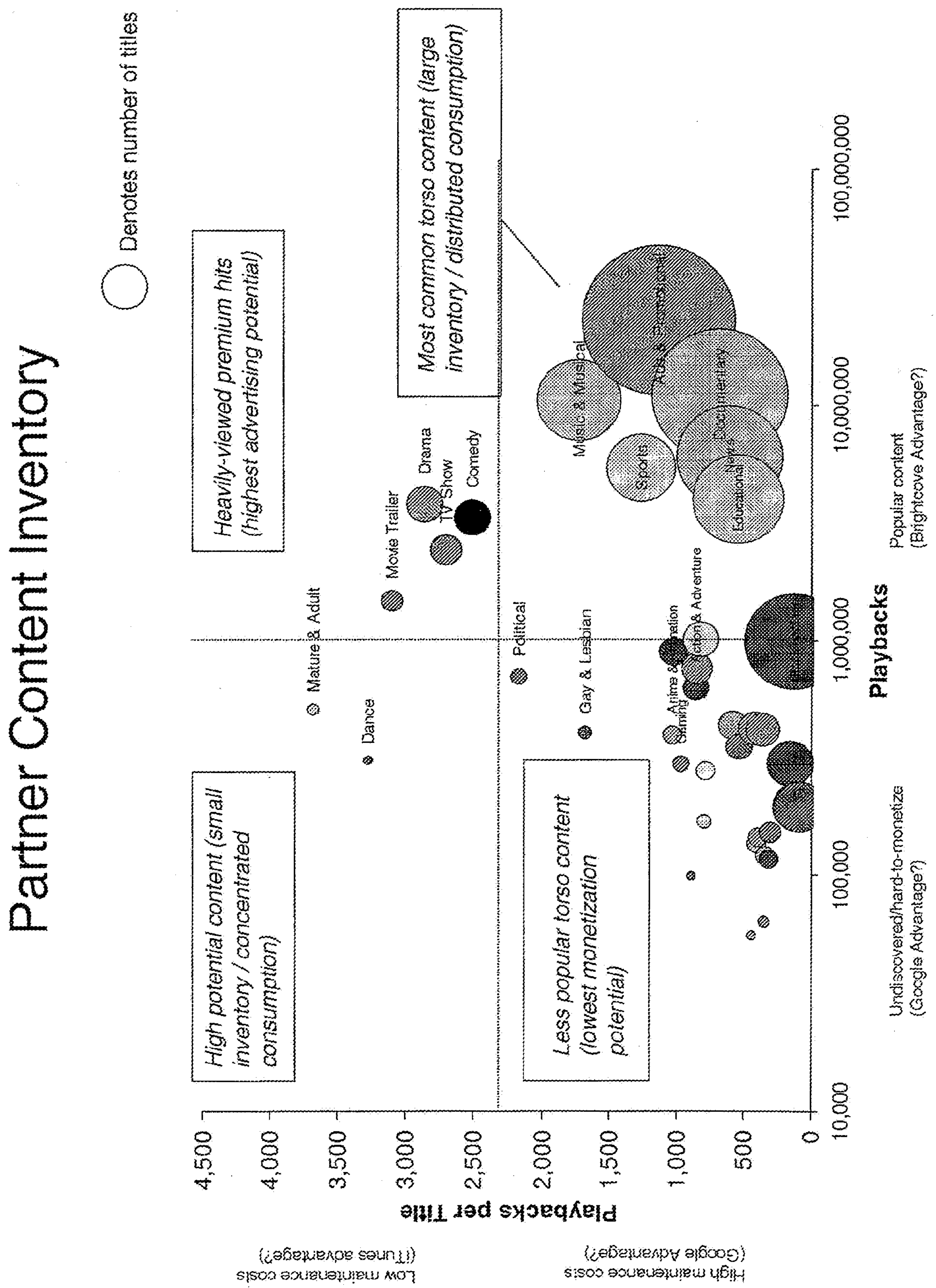
- Improve search not just hosted content but for all web video content
- Provide linkages such as RSS feeds and one-box integration in meantime
- Drive open standards and distribution deals so users can consume content across multiple devices, especially linking PC to TVs

GV can be best partner to content owners

- Respect copyrights of premium content owners (we should beat YouTube by improving features and user experience, not being a "rogue enabler" of content theft)
- Provide best in class marketing/promotion of content, particularly "event" programming: Online Film Festivals; supporting "Tentpole" movie and tv shows launches; Superbowl ads; Oscar trailers/content; (Jennifer, Eva/Jon, Dave)
- Provide a platform for promotion and distribution for torso content owners who have professional content but limited access to audiences
- Provide community tools for voting, rating, tagging, commenting, recommending, mashing, etc. and give access to all types of content, including select premium/torso content

GV can provide multiple monetization options (Advertising; Sponsorships; DTO) and leverage expertise in Advertising in particular

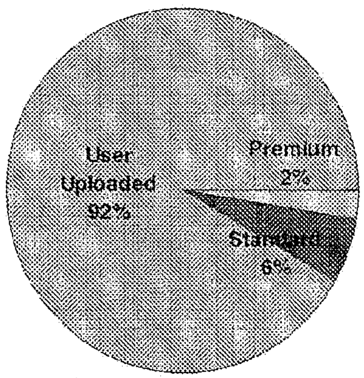
- The way to win ultimately is in providing multiple monetization options, particularly advertising which can be applied across all content types


Partner Content Inventory
Denotes number of titles
Heavily-viewed premium hits (highest advertising potential)
Most common torso content (large inventory / distributed consumption)
High potential content (small inventory / concentrated consumption)
Less popular torso content (lowest monetization potential)
Playbacks per Title
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Playbacks
10,000
100,000
1,000,000
10,000,000
100,000,000
Mature & Adult
Dance
Movie Trailer
Drama
TV Show
Comedy
Political
Gay & Lesbian
Anime & Animation
Gaming
Action & Adventure
Music & Musical
Sports
Ads & Promotional
Documentary
News
Educational
Undiscovered/hard-to-monetize (Google Advantage?)
Popular content (Brightcove Advantage?)
Low maintenance costs (iTunes advantage?)
High maintenance costs (Google Advantage?)

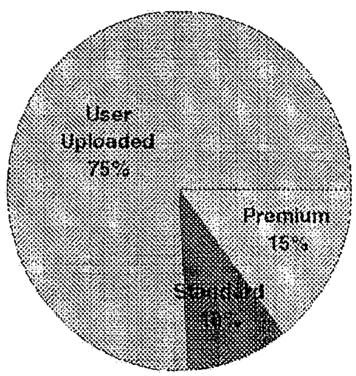
Overall consumption of partner content is played in proportion to its availability in the index

Acquired

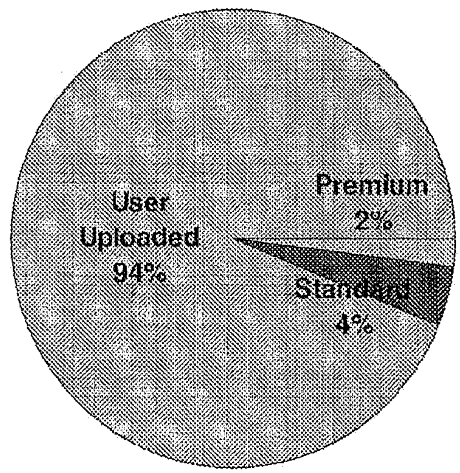
Video Titles Live in Index (total 0.7MM)



Video Hours Live in Index (total 49K)



Consumed

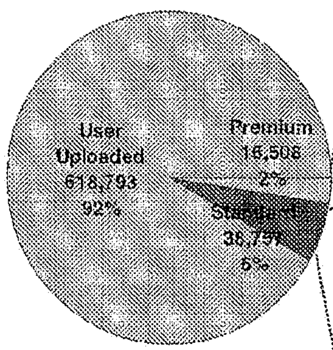


Video Titles Played (2006) (total ~1Bn)

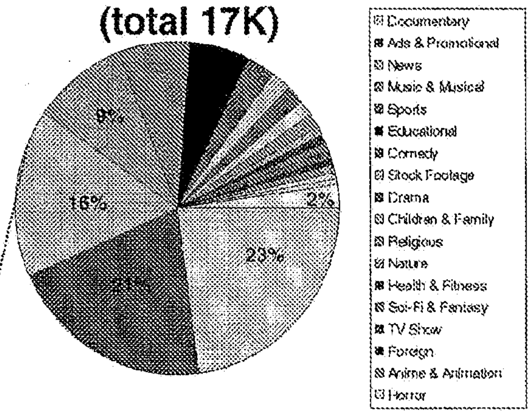
Sources: Content stats from VSPDB, Traffic stats from VCSDB -- 05/08/06

Of the wide range of partner content we have acquired, premium music and standard ads are most often played

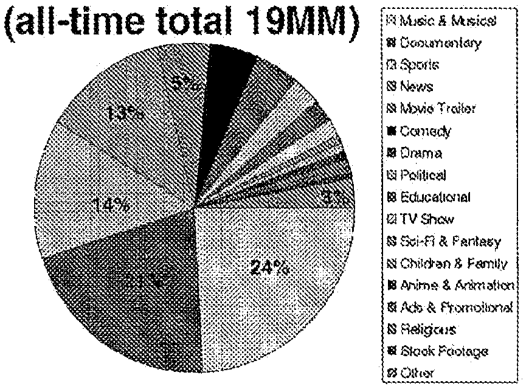
Video Titles Live in Index (total 0.7MM)



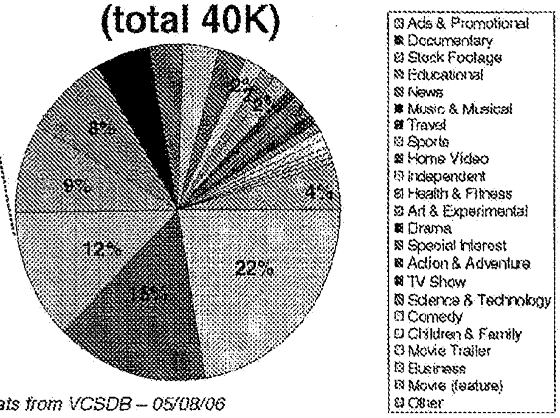
Premium Content Live Inventory (Titles) (total 17K)



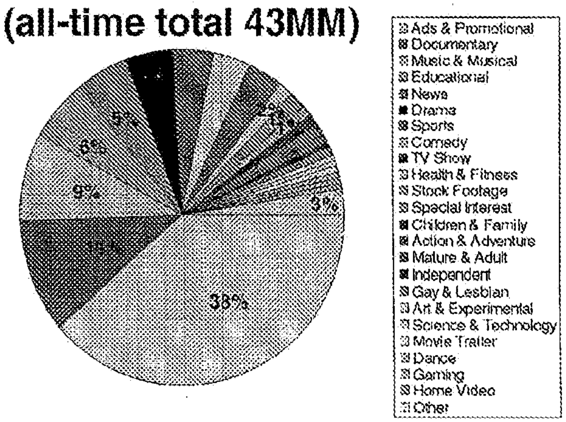
Premium Content Playbacks (all-time total 19MM)



Standard Content Live Inventory (Titles) (total 40K)

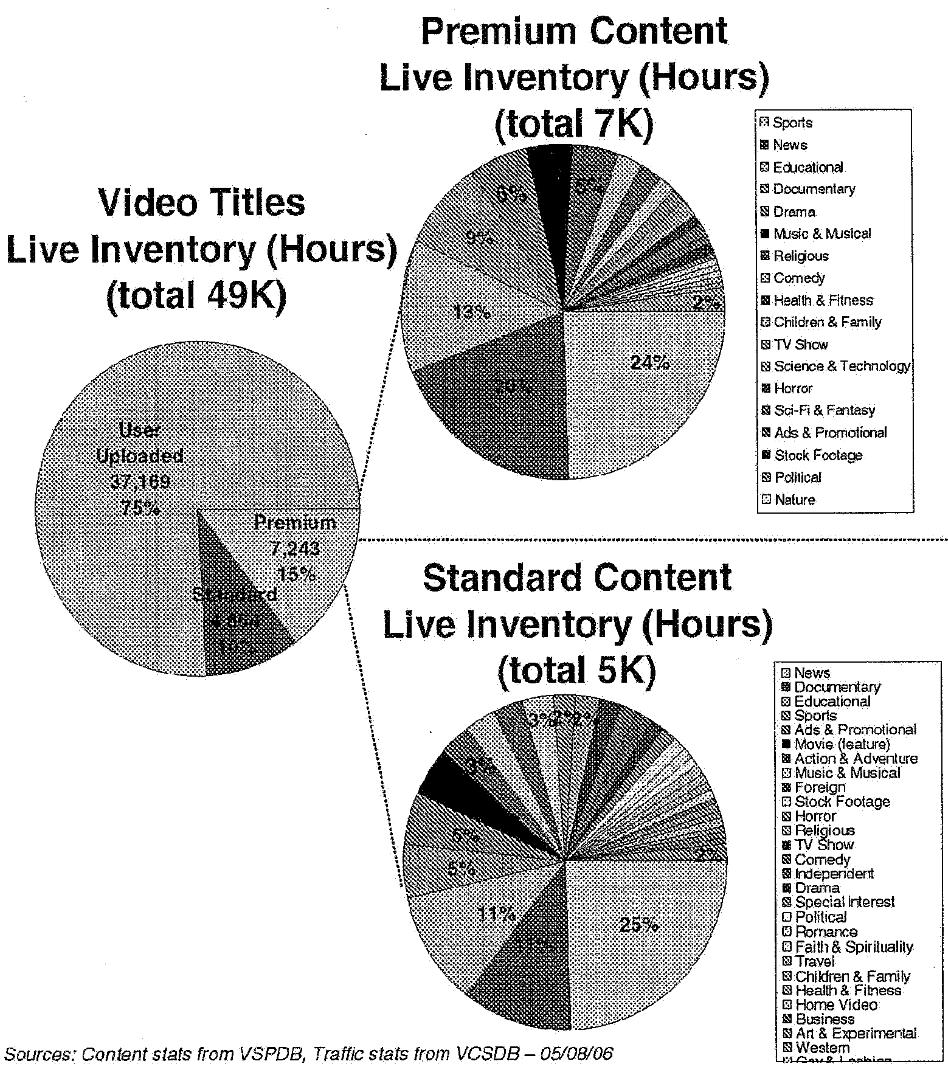


Standard Content Playbacks (all-time total 43MM)



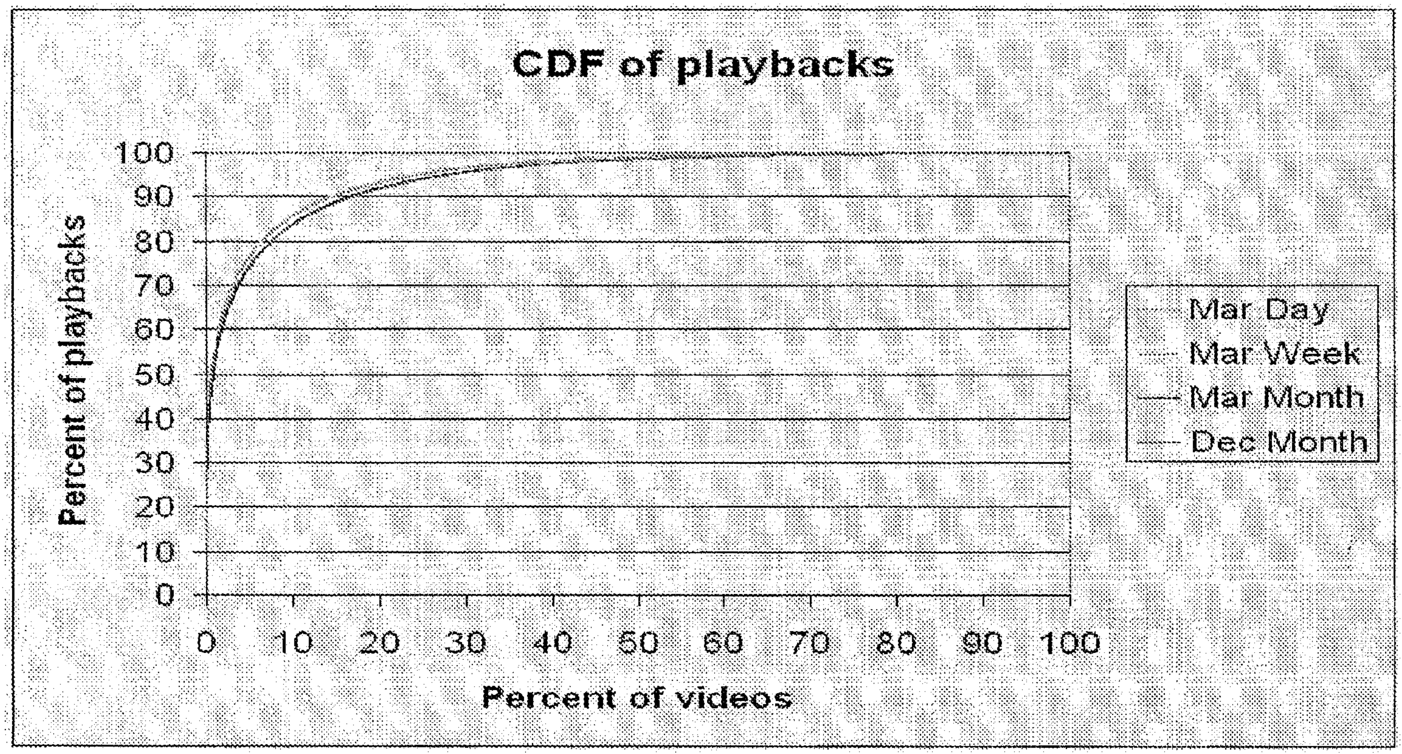
Sources: Content stats from VSFDB, Traffic stats from VCSDB – 05/08/06

News, sports, educational and documentary videos make up the majority of partner content by duration



Sources: Content stats from VSPDB, Traffic stats from VCSDB – 05/08/06

Usage data indicates that it is not the sheer number of video titles that drives playback, but the quality of videos



Files	Playbacks		Files	Playbacks
Top 10 videos	8.5%		Top 10% of videos	83%
Top 20 videos	10.8%		Top 20% of videos	92%

How is GV doing?

- YouTube is getting more traffic and engagement than Google Video today. In March 2006*:

	YouTube	Google Video
Visitors*	12.8 million	7.9 million
Page Views*	486 million	81 million
Duration*	20m53s	8m40s
Uploads**	1 million	120,000

- Qualitative research in 4 countries reveals the reasons behind this:
  - YouTube is designed around the viral video experience. It is clear what the site is about, it promotes uploading, and it makes it easy to browse video categories
  - YouTube promotes its viral and community features above all else
  - YouTube's content is all free, and much of it is highly sought after pirated clips

* Source: Neilsen/Netratings May 6, 2006; YouTube's PV numbers could be inflated by RSS readers hitting the site

**Source: Company reports

How has International usage differed? What are the learnings?

International: We have to avoid being US-centric since more usage comes from outside the US, where there are big differences in taste and consumption across different countries

- 63% of our playbacks and 40% of our uploads come from outside the US
- Large fraction of videos have large majority of playbacks from a single country (Potential takeaway: different videos resonate in different countries)
- Playback and support for premium vs. user-generated content varies significantly across different countries (Germany vs. Spain)
- Most of the non-US top videos have titles/descriptions not legible in English
- Top videos in non-US countries typically don't get big US viewership

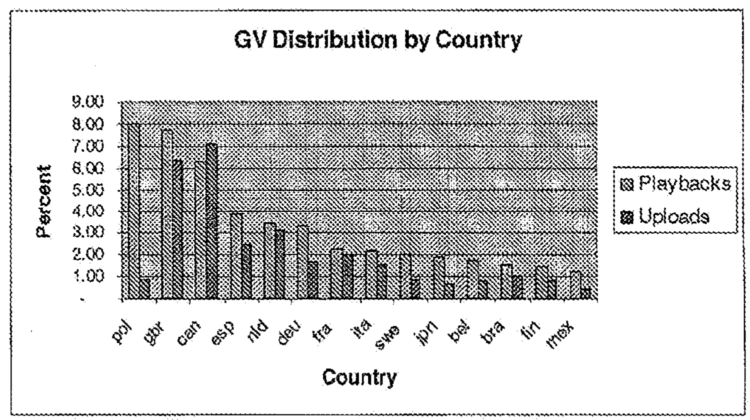
GV internationally

- Europe lags the US in internet video usage, but is quickly catching up. No site has yet built a pan-European presence
  - *Google Video receives 30% of playbacks from top 7 EU countries*
  - *Qualitative research reveals interest in premium content varies by country. People in countries with lower internet video usage (Germany, France) tend to seek premium over user-generated content*

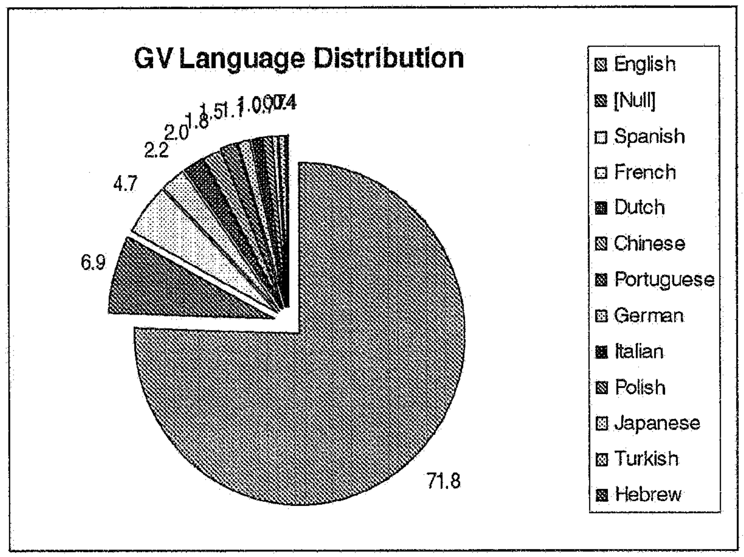
	Number of internet users (millions)	Internet users who use video 1x/month (%)
UK	35	13%
ES	15	27%
FR	25	15%
DE	46	7%
USA	200	45%

Sources: Neilsen/NNR (Dec 2005), EIAA Mediascope (Feb 2006), Online Publishers Association (April 2006), Morgan Stanley (April 2006)

- Google Video became an "international product," even before localized versions were launched
  - *63% of playbacks and 40% of uploads come from outside the US today*
  - *GV's top 10 countries are all western countries. This could be because our uploader and indexing does not fully support CJK characters yet*



- Videos in the index are still English-centric, despite the fact that 50% of playbacks come from non-English speaking countries
  - *However, analysis shows that the most popular videos requested from non-English speaking countries still get enough playbacks to rise to "global" popularity status*
  - *This shows a strong demand exists for local content that we need to encourage*



- Our top videos drive a disproportionate amount of traffic from *outside* the US
  - *30% of the top 200 videos in the GV index receive at least 70% of playbacks from just a single country*
  - *56% of the top 200 videos receive the most playbacks from a non-US country*

Another country had more playbacks than US		
Rank	Title	usa
1	Loose change 2nd ed extra footage	69%
2	Lady punch	72%
3	Amazing juggling	73%
4	Incredible machines (copyright removal)	16%
5	Loose change 2nd edition	70%
6	Co sie stalo ? (Jak to zamknieta MIX)	1%
7	Webcam Girls Go Wild	36%
8	SO WE PWNED THIS FUNERAL TODAY: SI	54%
9	Sahte Asker	4%
10	russian climbing	28%
11	Zajecie wymagajace krzepy	5%
12	Worst Music Video EVER (Finnish)	21%
13	Loose Change 9-11 Alex Jones Conspiracy	64%
14	Indian Exotic dance in Office 2	43%
15	Probably Greatest Pub Team in World	14%

Important points to make somewhere in the deck:

- YouTube's business model is completely sustained by pirated content. They are at the mercy of companies not responding with DMCA requests. When they do (like CSPAN did with S. Colbert), they suffer

- The DMCA law could be overturned if the media industry engages in sustained lobbying efforts (it was written before the viral video craze took off), and it is risky to build an entire business model on this law. *It is also not scalable to expand internationally since DMCA is a US law*

- The YouTube business model is also not monetizable. They are an AdSense publisher, so we have a good sense of their rate of monetization:PV

- YouTube is going after one slice of the internet video market – funny, user-made videos. There is a lot more slices in the pie and GV should try to be the broadest possible index

- We need to continue CBG support for video internationally b/c we don't have good ad monetization solutions yet, and some content producers will only distribute their content if they can sell it

- There is a big market for high quality premium content, but it is largely going to be shorter form, as opposed to 2 hour movies. Perhaps this means we should be working with media companies to get 2-4 minute funny clips from their shows. This will drive traffic, raise awareness of their TV shows (e.g., Lazy Sunday boosted SNL's ratings), and be very monetizable

Content Acquisition Priorities

CURRENT PRIORITIES

- **Maintain relationships w/ premium content owners and reset expectations**
  - Continue to push for DTO deals with current features, knowing that uptake will be limited
  - For partners resisting DTO in current form:
    - Seek more free promotional content
    - Set up advertising and other monetization trials
  - Reset expectations regarding DRM improvements this year
  - Focus on one box integration, improved browse/search/promotion capabilities to come, and RSS to come
  - Drive traffic through "event" programming
  - Set up advertising and monetization trials for current DTO partners
  - Differentiate based on our "respect for copyright"

Content Acquisition Priorities (Cont'd)

CURRENT PRIORITIES

- **Accelerate growth of "torso" content**
  - Health/Fitness (e.g., CareTALK)
  - Educational (e.g, UCTV (Regents of University of California))
  - Faith and Spirituality (e.g. Life Balance Media (LIME))
  - Lifestyle/Arts (e.g., BlueHighwaysTV)
  - Travel (e.g., Wilderness Films International)
  - Children and Family (e.g., Sesame Street)
  - Sports (e.g., Collegiate Images)
  - Special Interest (e.g., WheelsTV)
  - Other Niche Content (e.g, Bollywood films)
- **Additional**
  - Secure more non-US and non-English language content deals with new partners
  - Continue digitization efforts
  - Consider university lectures pilot

What Features/Infrastructure Needed to Support Content Types?

	Must-Have Product Features
PREMIUM	• Home page promotion, branded pages • Browse by provider name • Ranking by video quality/premium partnership • Better search functionality • Fast upload with high service model • Tools for managing large amounts of content • Payment mechanism for DTO • Disconnected DRM and limited devices/downloads • Premium advertising option, control over advertising partners • Statistics on page view/playback/download/payment behavior and demographics by title
TORSO	• Search traffic from google.com • Search on provided and processed metadata including provider name • Multi-level granular brows • Featured areas to support standard partner content • Easy upload and takedown • Unified dashboard for tracking partners through the pipeline • Low-hassle digitization assistance • Payment mechanism for DTO • Advertising option to monetize e.g. text ads
USER-GENERATED	• Easy upload from web page • User tagging, rating, voting, send-to-friend, myspace integration • Popularity metrics

Source: Standard team feedback, BizOps analysis

How we plan to boost torso content

INCREASED CONTENT ACQUISITION TEAM ACTIVITY

- **Increased staffing** in standard team (+2 FTEs)
  - Faster response to user enquiries
  - Accelerated sign-up and upload of content
  - Capacity for proactive outreach
- **Identify new target torso content owners**
  - Existing online video: Glengarry tool
    - In-house tool for PSO identifies web sites with online video files; sorts by quantity of video, by vertical
    - Largely unutilized so far while partner team has been in reactive mode; untapped resources with fast upload path
  - Video not yet online: Business Census (in US); regional targeting (outside US)
    - Prioritization of key verticals & functions with propensity to make video, sufficient revenues per firm
    - In-country groups charged with identifying top XX target content providers and reaching out

Sources of new standard partners

- Video Inquiry Database
- Contacting Experimental Uploaders
- User Support Emails
- Glengarry - Automatic lead generation
- Premium Partner Kick Downs
- AdWords/AdSense Relationships
- Asset Management
- Google Grants/Google.org
- Conferences & Webinars

IMPROVED PARTNER VIDEO EXPERIENCE

- **Better marketing** of new torso content
  - Google Video Blog, Google Picks, Google Partner Pages
- **Improved product functionality**: working browse and search (coming in Q2)
  - Increase partner satisfaction about visibility of content
  - Increase traffic to partner videos
  - Positive marketing message and references
- **Future product functionality** (later in 2006)
  - Localized versions of video.google.com homepage and uploader tools
  - Translated metadata, descriptions for finding videos…
  - Option for monetization through text ads

Source: Standard team feedback

Video monetization possibilities

1 Sponsored Video – requires high-touch premium content to premium advertiser matching – needs top content and TV-style CPMs to work

Sliding scale of ad frequencies as video gets longer	# of people interested in seeing video*	$ amount advert'r will pay		movie length (mins)	minutes per ad	# ads per stream	advertising cut to content owner	$ value to content owner	$ each advertiser pays
		CPM	Per stream						
911 Loose change	4,560,448	S 10.00	$ 0.01	82	15	5	75%	$ 171,017	$ 45,604
Amazing juggling	2,521,234	S 10.00	$ 0.01	2.5	2	1	75%	$ 18,909	$ 25,212
Airbus build plane	412,772	S 10.00	$ 0.01	7	3	2	75%	$ 6,192	$ 4,128
Octopus eats shark	201,412	S 10.00	$ 0.01	2.5	2	1	75%	$ 1,511	$ 2,014
Jessica Simpson - These boots are made for walkin'	10,000,000	S 10.00	$ 0.01	4.1	2	2	75%	$ 150,000	$ 100,000

2 Tip Jar – "busker" or "shareware" model may deliver strong incentives to user uploaders but nothing to corporate partners (Google would pass through all fees)

Tip jar	# of people interested in seeing video*	Fraction who will tip	Average tip	$ value to content owner	*Rationale for tipping guesses*
911 Loose change	4,560,448	5%	$ 2.00	$ 456,045	*Big tip for charity or interest group: long highly-edited video, engaged viewers*
Amazing juggling	2,521,234	2%	$ 0.50	$ 25,212	*Viewers impressed - see single beneficiary with talent*
Airbus build plane	412,772	0.10%	$ 0.02	$ 8	*Low tip rate - corporate promo video*
Octopus eats shark	201,412	2%	$ 0.25	$ 1,007	*Viewers impressed - see single beneficiary with good content*
Jessica Simpson - These boots are made for walkin'	10,000,000	0.10%	$ 0.25	$ 2,500	*Low tip rate if its thought tip goes to Sony*

3 Text ads – familiar Google technology accessible to smaller advertisers can monetize standard partner and user content (Google could keep a fraction of ad revenues)

Text ads with click-throughs	# of people interested in seeing video*	CTR	CPC	movie length (mins)	minutes per ad group	# ads on screen at a time	# ads per stream	$ value to content owner	$ value to content owner	$ each advertiser pays	clicks each advertiser sees
911 Loose change	4,560,448	0.50%	$ 0.25	82	15	4	20	75%	$ 85,508	$ 5,701	22,802
Amazing juggling	2,521,234	0.50%	$ 0.25	2.5	2	4	4	75%	$ 9,455	$ 3,152	12,606
Airbus build plane	412,772	0.50%	$ 0.25	7	3	4	8	75%	$ 3,096	$ 516	2,064
Octopus eats shark	201,412	0.50%	$ 0.25	2.5	2	4	4	75%	$ 755	$ 252	1,007
Jessica Simpson - These boots are made for walkin'	10,000,000	0.50%	$ 0.25	4.1	2	4	8	75%	$ 75,000	$ 12,500	50,000

* based on April 2006 actual playbacks (except Ms Simpson)

Source: Playbacks and movie length real data (apart from Ms Simpson); all else "what-if" analysis by BizOps

Decisions on copyright policy and product features will significantly impact the activities of the content team in 2006

Priorities of content team

With Disconnected DRM & limited devices accelerated to Q2/eQ3

- Keep premium and standard teams separate
  Build premium relationships through multi-property deals
  Engage premium partners in supporting crawl and metadata extraction efforts
  Seek multi-language support from existing premium partners
  Engage premium partners on enabling viral clips

Status Quo: no DRM changes, no copyright policy changes

- Communicate to premium partners no material DRM improvements this year
  Engage premium partners in sponsored content streaming ad test/deployment only – otherwise move premium team to standard content acquisition effort
  Focus on securing non-US and non-English language content deals with new partners
  Await improvements in search and browse to produce real data on user preferences to guide further partner content acquisition

No DRM changes, loosened copyright policy on short clips

- Increase staffing and/or resources to content acquisition, ops and legal teams to handle complaints and potential litigation
  Limit damage through public policy, investor relations, press and premium partner meetings
  Support partners' use of review tools
  Reach out to non-partner content owners – actively promote review tool

Potential results of changing copyright enforcement policies

- **Likely acceptance among users** (especially highly media-aware young demographic)
  - Higher traffic, higher profile as destination site
  - Increased uploads of user content as well as copyrighted content
  - Potential to monetize higher volume of traffic
  - Achieve OKRs on traffic and uploads
- **Inability to independently gauge what kind of impact on traffic other options can have**
  - Improvements in features and user experience
  - Modifying copyright protection through applying public pressure through increased collaboration with content owners and indirect pressure through press and public policy
- **Some content owners sue Google**
  - Diversion of management attention
  - Negative PR
  - Potential monetary damages
- **Loss of trust from content providers**
  - Reduced future access to content
  - Reduced willingness to partner with other Google properties
  - Reduced AdSense partnerships and revenues (not just in Video)
- **Inconsistent with assertions in book search and library partner program for respecting copyrights**
  - Press, public and potentially courts will see loosening of video standards as sign of overall approach to copyrights
- **Loss of trust from advertisers**
  - Wish to avoid negative associations
  - Reduced ad revenues

Speaker Notes Slide: 2
"Everyone hates Chris" launch on GV – 9/23/05
iTunes launch with ABC – October, 2005
YouTube launch – February, 2005 (Not shown on timeline)
GV launch at CES – January 8, 2006
CBS puts programs on 3 platforms (comcast, satellite, gv) plus their own .com
iTunes announces 15 millionth video download (from email I sent from PaidContent estimating 700k iTunes sales/week) – Feb, 24, 2006
SNL "Lazy Sunday" puts YouTube on the map – episode aired December 17th, 2005. It attracted about 5 million online views before NBC asked that it be removed
AOL launches In2TV – 3/15/06
Yahoo says it's scaling back on original programming – March 2, 2006
MTV announces re-org, big plans new media distribution, (let's also see if we can find out when they acquired iFilm and when their show on VH1 taking clips from iFilm first aired) (background bullet on ~4 similar "clips shows" on air and 9 in development) – the iFilm acquisition was Oct. 14, 2006 for $49 Million.The "Best of Web Video" TV show with VH1 first aired on Jan. 13, 2006.
CBS streams NCAA championships for free and reports it generated $4mm in revenues mid March through end of March, 2006
FOX closes landmark deal with affiliates
NBC and affiliates form joint venture for new media distribution - April 19, 2006
GV announces initiative to digitize NARA content – 2/24/06
ABC announces ad supported streaming trial of top shows – announced April 10, 2006l; trial is for May and June, 2006
MSN unveils new plans to create original programming – May 3, 2006
CBS Innertube – 5/4/06
Some bullet that speaks to tremendous growth rate/volume of user-generated content

Others? This is a lot already but skews toward the "head" content; we may need more "tail" bullets and more about "torso", e.g., GV announces initiative to digitize NARA content
Message we're trying to communicate: The market is very young but extremely fast-moving; premium content owners have really become more aggressive and open to experimentation; user-generated trend is huge

Speaker Notes Slide: 5
Offer GV distribution/promotional prowess to those who don't have scale

Speaker Notes Slide: 6
In addition to premium content, "torso" content presents opportunities for competitive differentiation
Leverage GV promotion, traffic, tools for professional content owners who don't have scale
Take advantage of more relaxed DRM requirements among this class of owners
Few competitors will have resources or expertise to identify and close large volumes of torso deals

Speaker Notes Slide:

7
Overview of Google and our portfolio

Speaker Notes Slide: 10
Overview of Google and our portfolio

Speaker Notes Slide: 21
Offer GV distribution/promotional prowess to those who don't have scale

Speaker Notes Slide: 22
Offer GV distribution/promotional prowess to those who don't have scale

Speaker Notes Slide: 23
Overview of Google and our portfolio

To: 'Ethan Anderson' <eanderson@google.com>
From: Patrick Walker [redacted]
Cc:
Bcc:
Received Date: 2006-05-10 16:08:00 CST
Subject: RE: [Harappa-team] YouTube offers mobile upload service

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just a thought. but here are some reasons: a) it would allow us to get past the daily obsession with comparing ourselves to them so we can move on with the big picture, b) we get clearly talented and quick moving engineers, c) we could bring them legitimacy through tighter and more responsible control of pirtated material, and importantly d) we keep it out of the hands of the Yahoos, MSNs and others who are nowhere with the UGC services. Their dedicated userbase (traffic/usage) and creativity with our legitimacy and global scale would be a powerful combination our competitors would find extremely difficult to match.

from what i understand, there's a big push to be more like them in MV. i'd rather we just acquire them and then free ourselves to be more like Google.

From: Ethan Anderson [mailto:eanderson@google.com]
Sent: 10 May 2006 17:01
To: 'Patrick Walker'
Subject: RE: [Harappa-team] YouTube offers mobile upload service

I can't believe you're recommending buying YouTube. Besides the ridiculous valuation they think they're entitled to, they're 80% illegal pirated content. How would that affect your content partnership discussions?

Ethan

From: Patrick Walker [redacted]
Sent: Wednesday, May 10, 2006 8:55 AM
To: 'Ethan Anderson'
Subject: FW: [Harappa-team] YouTube offers mobile upload service

i think it's time to seriously think of buying them - if just for their quick moving engineers and this sort of functionality.

From: Peter Chane [mailto:peterch@google.com]
Sent: 10 May 2006 16:31
To: Hunter Walk
Cc: Video Team
Subject: Re: [Harappa-team] YouTube offers mobile upload service

if anyone has a video camera phone can you try this and send notes about how well it works?

On 5/10/06, Hunter Walk > wrote:

> YouTube - create mobile profile: http://youtube.com/my_profile_mobile

Walker
EXHIBIT NO. 13
DATE 7-22-08
Y.FENNELLY CSR5495

YouTube offers mobile upload service

By Greg Sandoval
http://news.com.com/YouTube+offers+mobile+upload+service/2100-1025_3-6070527.html

Story last modified Wed May 10 00:05:04 PDT 2006

As it tries to expand the ways people can post videos online, YouTube launched on Wednesday a service that allows users to upload homemade clips via their mobile phones or PDAs.

A growing number of handheld devices are capable of recording video. YouTube wants to disconnect users from their Web cams and computers, said Steve Chen, one of the company's founders and its chief technology officer.

Most user-created clips are taken with Web and digital video cameras, Chen said. The new service will likely produce greater numbers of spontaneous and candid clips.

"The good thing about it is that you don't have to go home to YouTube anymore," Chen said. "People may not carry their digital cameras with them when they go out. But everybody carries their cell phone.. I'm interested in seeing what kind of content this will produce."

Privately held YouTube is one of the fastest-growing Web sites and among dozens of companies that have begun offering Internet video over the past year. Based in San Mateo, Calif., YouTube says it sees 12 million unique visitors and averages about 1.2 billion viewings per month. While this new mobile service is free, analysts are waiting to see how the company will cash in on all that traffic.

In the meantime, the company continues to expand services.

The new mobile offering works this way: YouTube members can create a mobile profile on the site and YouTube will create a unique e-mail address where they can send videos.

Members can shoot clips with their cell phone and e-mail them to YouTube, where the clips are automatically posted under the users' profile.

--
Hunter Walk
Business Product Manager, Google
hunter@google com
[redacted]

Harappa-team mailing list
[redacted]

--
Peter Chane
peterch@google com
Group Business Product Manager
Google Video | http://video google com

To: "David Eun" <deun@google.com>
From: "Eric Schmidt" [redacted]
Cc: "Omid Kordestani" [redacted]
Bcc:
Received Date: 2006-05-12 16:38:28 CST
Subject: RE: Video GPS - Content

While I understand your points and generally agree I don't yet see a winning strategy from any of the video camps. For example, you talk about the Torso and make a lot of sense, what is the strategy to win there? My issue is that the team is reacting to others rather than driving a new strategy and I want to see a compelling, differentitated strategy.. Eric

---

From: David Eun [mailto:deun@google.com]
Sent: Friday, May 12, 2006 8:35 AM
To: [redacted]
Cc: Omid Kordestani
Subject: Video GPS - Content

Eric,

In advance of the Video GPS, I thought it would be helpful to give you my perspective. My apologies in advance for the length. I wasn't sure if I'd be able to share these thoughts with you before -- or during -- the GPS. Thank you also for energizing the Video team with your recent inquiries.

Balancing Short Term vs. Long Term Goals

The Video team has focused on two questions in preparation for the GPS: 1) how we "beat YouTube" in the short term; and 2) how we win over time. What is lacking is how to best balance the pursuit of both goals.

There is a chance of pursuing short term goals with such zealousness that we develop blind spots that could hurt us later. For example, there was heated debate about whether we should relax enforcement of our copyright policies in an effort to stimulate traffic growth, despite the inevitable damage it would cause to relationships with content owners.

I think we should beat YouTube - and all competitors - but not at all costs. A large part of their traffic is from pirated content. When we compare our traffic numbers to theirs, we should acknowledge that we are comparing our "legal traffic" to their mix of traffic from legal and illegal content. One senior media executive told me they are monitoring YouTube very closely

DATE: 5.6.09
DEPONENT: Schmidt, E
EXHIBIT# 7
CASE: Viacom, et al., v. YouTube, et al., The Football Association Premier League, et al., v. YouTube, et al., Case Nos. 07-CV-2203 and 07-CV-3582

A. Ignacio Howard, CSR, RPR, CCRR, CLR, No. 9830 and referred to them as a "Video Grokster".

Unfortunately, as we've been shifting to focus on "beating YouTube" this past quarter, there have been multiple delays in providing enhancements to our current product that have strained relationships with current partners and prevented us from striking new deals.

Tradeoffs

If we are going to refocus resources on long tail content, then let's acknowledge what we are NOT doing. Resource prioritizations are being made, but often in a bit of a vacuum.

Many premium content owners are already distrustful of our "ulterior motives" and/or see us as not being very partner-friendly. If we were (overly) focused on premium content before, we may seem "fickle" to some partners now as we shift more of our attention to user-generated content.

For example, I'm not convinced that a paid DTO model will be widely embraced by consumers, and think advertiser-supported models will ultimately prevail. However, I don't believe we've yet provided a baseline of functionality (disconnected DRM, lower download limits, improved search/browse/promotion) that would give us an accurate sense of what the true potential of DTO is. Universal Music sold over 400k paid downloads of just 800 music videos in their first week with iTunes in December.

Building traffic by focusing more on user-generated content may be the right answer for now, but we should discuss what those consequences are, good and bad. I think we could be a bit more nuanced and maintain some of our longer term objectives such as building additional monetization approaches beyond DTO more aggressively, while still pursuing shorter term priorities.

Strategy: Head, Tail, Torso

Google can win by providing the best user experience for the most comprehensive content offerings in the world. We should provide content of all kinds in all languages with multiple monetization schemes.

Head

Premium content owners are more eager to offer their content on their own or with multiple partners. Just this week CBS announced the launch of a new broadband network they'll host; Fox closed the biggest content deal with iTunes yet; and Warner Brothers announced a deal to distribute DTO movies through Bit Torrent. We should continue to maintain or create relationships with them -- and expand relationships with them when the product has improved.

Tail

We should provide the best tools and features for long tail content, while understanding that there are already hundreds of websites providing very clever, unique offerings (possible acquisition targets?).

Torso

I think the real differentiator for us will be what I call the "torso" content: professional content owned by companies who don't have enough scale to have their own web distribution or promotion and would look to GV for support. These include smaller cable networks, special interest verticals, educational institutions and niche programmers. Very few of our competitors will have the scale, expertise and the head start we do in finding, negotiating and quickly indexing large volumes of this type of content.

Playing to Win

6 months ago, no one talked about YouTube. 6 months from now there are likely to be other hot competitors. I think we should absolutely have clear, short term goals, but we shouldn't focus on any one competitor at the risk of missing our longer term goal to win by being comprehensive. This is easier said than done, so we need your guidance to do this!

Eric, can we start executing on the proposed solution discussed at Omid's Offsite -- designating a Product lead and a Business lead for each high priority area? I know I can help take us to where we need to go in Video, but having you set that expectation on me publicly as the Business lead would provide a tremendous boost to getting there.

Dave

--
David Eun
NY: 212-589-8070
MV: 650-253-1993

To: "Eric Schmidt" <eschmidt@google.com>, "Larry Page" <larry@google.com>, "Sergey Brin" <sergey@google.com>
From: "Jonathan Rosenberg" <jonathan@google.com>
Cc:
Bcc:
Received Date: 2006-06-08 00:30:42 CST
Subject: FW: Google Video Handover Deck_v2

---

fyi

From: Francoise Brougher [mailto:fbrougher@google.com]
Sent: Wednesday, June 07, 2006 4:27 PM
To: Susan Wojcicki; Peter Chane; David Eun; Nikhil Bhatla; Jennifer Feikin
Cc: Shona Brown; Jonathan Rosenberg
Subject: Fwd: Google Video Handover Deck_v2

Video Team,

This is the synthese of Grace and Michael's put together. A lot of this material has been used by Peter and the team at the last GPS.

Some of the data, and analysis may be useful. If you have any question, Please feel free to contact Grace and Michael directly.

Thanks! Francoise

---------- Forwarded message ----------
From: Michael Baldwin <mbaldwin@google.com>
Date: Jun 7, 2006 3:08 PM
Subject: Google Video Handover Deck_v2
To: Francoise Brougher <fbrougher@google.com>
Cc: Grace Webber < gracew@google.com <mailto:gracew@google.com> >

Francoise,

The final deck is attached.

Thanks,
Michael

--
Michael Baldwin
Business Operations | Google, Inc.
650-253-0441 (office) | 617-388-9910 (cell)

Attachments:

060607 Video Handover SummaryMB_GW_v2.ppt

Page
EXHIBIT NO. 17
10-1-09
A. IGNACIO HOWARD CSR 9830

Summary: BizOps Google Video Strategy Work

March – May 2006

Contributors: Grace Webber & Michael Baldwin

Table of Contents

- Overall recommendations
- Google Video Use – Different from YouTube!
- Current Vision and Resource Deployment
- Monetization
- Acquiring content, digitization
- Next steps

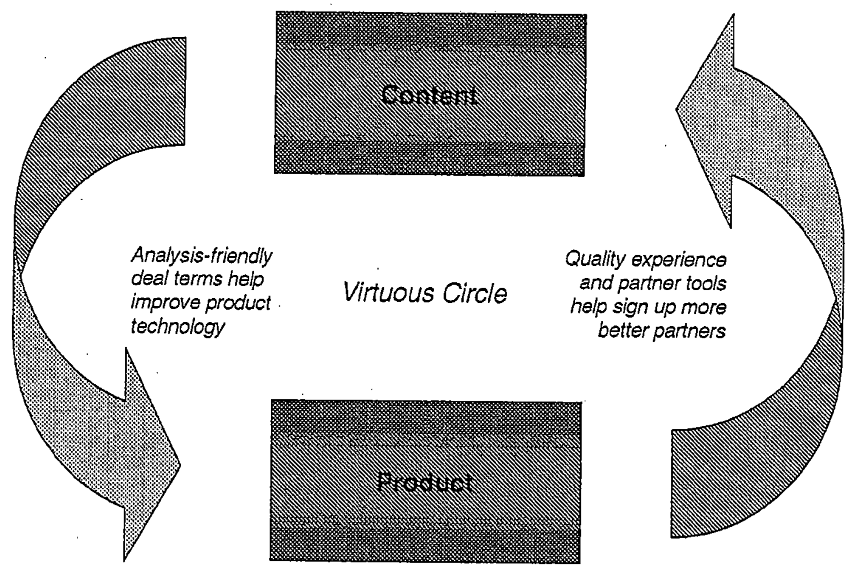
Key Challenges for Video

- Basic *Google* search features are not yet live:
  - Users can't reliably find videos
  - Users are swamped by irrelevant content
- Partner expectations are often not met, leading to dissatisfaction; in many instances, there exists no timetable for meeting these expectations
- Close collaboration between product, content, and marketing leaders is needed to reach consensus on key GV objectives
- YouTube and MySpace present significant competition in the world of online video:
  - Google is in the new position of trying to transition from *catch-up* to *market leader*
  - An increased focus on leveraging Google's core strengths is needed to successfully differentiate GV from competitors
- The meaningfulness of usage data is hampered by poor user experience

Closer integration of content and product can drive a virtuous circle

Deal structure

- Quality content?
- Good metadata?
- Closed captions?
- Transcripts?
- Broad analysis rights?



Features & tools

- Broad distribution?
- Rights protection?
- Brand support?
- Owner control?
- Monetization?

Google

Overall recommendations

Overall Recommendations

Cross-functional

- Hold monthly strategy roundtable for 1-2 senior reps from each of content/product/engineering – rotate presentation responsibility. "What [my group] is doing to improve things for [your groups] – and what we need from you"
- Marketing to bring insights about user desires – to cover content, features, UI and include non-US data.

Product

- Fix the basics in the product so the product is a reliable mechanism for "find" (what you'd expect from any Google property: search and browse, first for hosted content and then for web index)
- Quickly bring on board multiple monetization options suited to different content types (sponsored ads, text ads, tip jar): primary aim is to make more content available free (any revenue for Google is secondary)
- Commit to a fixed timetable (or deny request) for features required in long term deals (e.g. premium content partnerships)
- Bring international awareness to every discussion
  - Language-specific options
  - Translation: tools, pages, metadata
  - Local-interest content
  - Local norms on taste/appropriateness/legality

Engineering

- Build long-term technology development plan to play to Google's strengths: analysis, quality, monetization
- Carve out desirable technology areas to fill by acquisition; evaluate targets and work with corporate development to bring to table

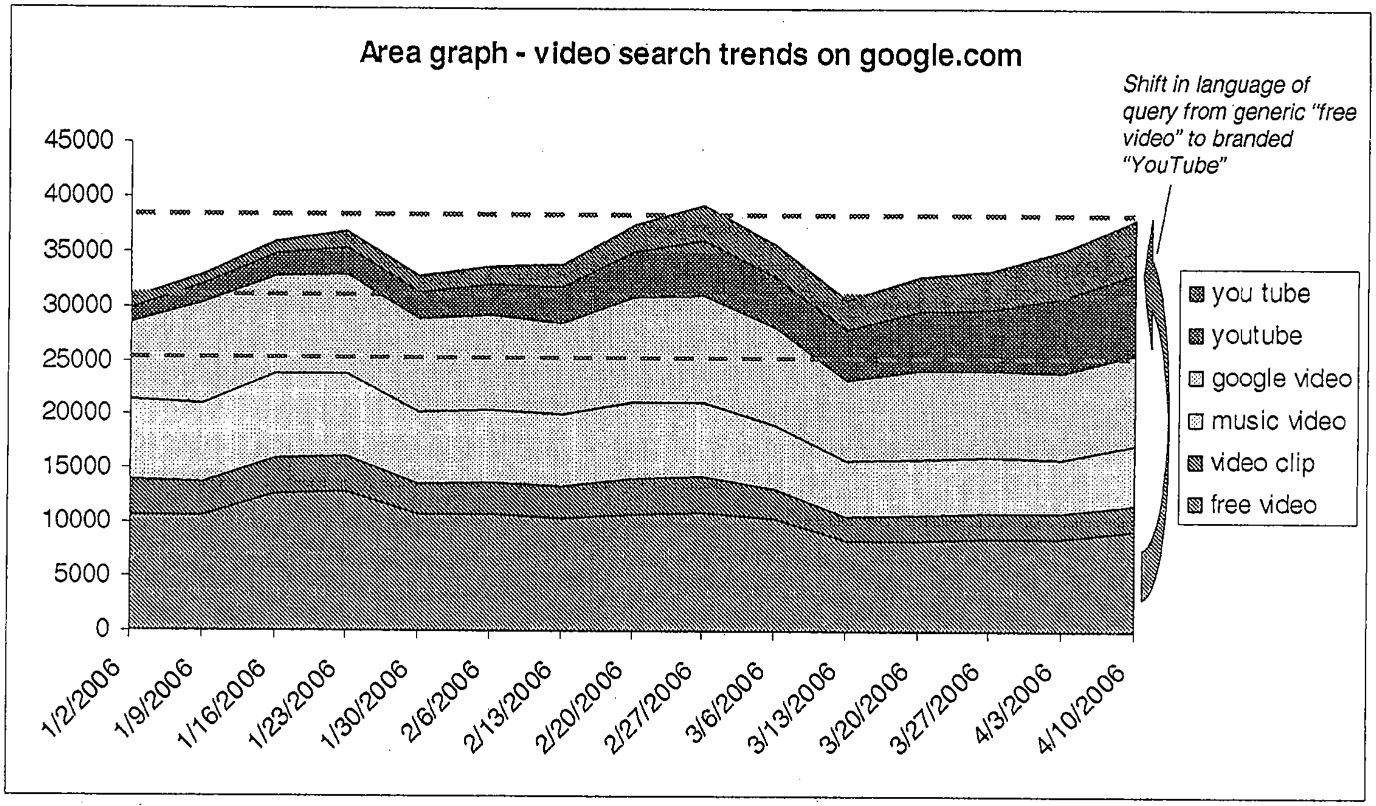
Content

- Share content provider needs up-front with product; offer deal terms that fit with fixed product features timetable
- Change terms with premium content providers
  - Pressure premium content providers to change their model towards free
    - Adopt "or else" stance re. prosecution of copyright infringement elsewhere
    - Set up "play first, deal later" around "hot content"
    - Talk in the press about need to free topical content
  - Grab language alternatives wherever possible (transcripts, alternate dubs, subtitles, closed caption)
  - Bake in future usage types into content deals (subtitles, translation, processing for metadata)
- Get more torso content: scour for easiest-to-convert torso content already online; create and send outbound marcomms to horizontals and verticals of interest; directly connect to top 4 companies per industry
- Set up teams with metrics for international content acquisition – prioritize by language and country

Google Video Use is Different from YouTube

Overall volume of search for generic video sites is reasonably stable but YouTube has risen to 30% share

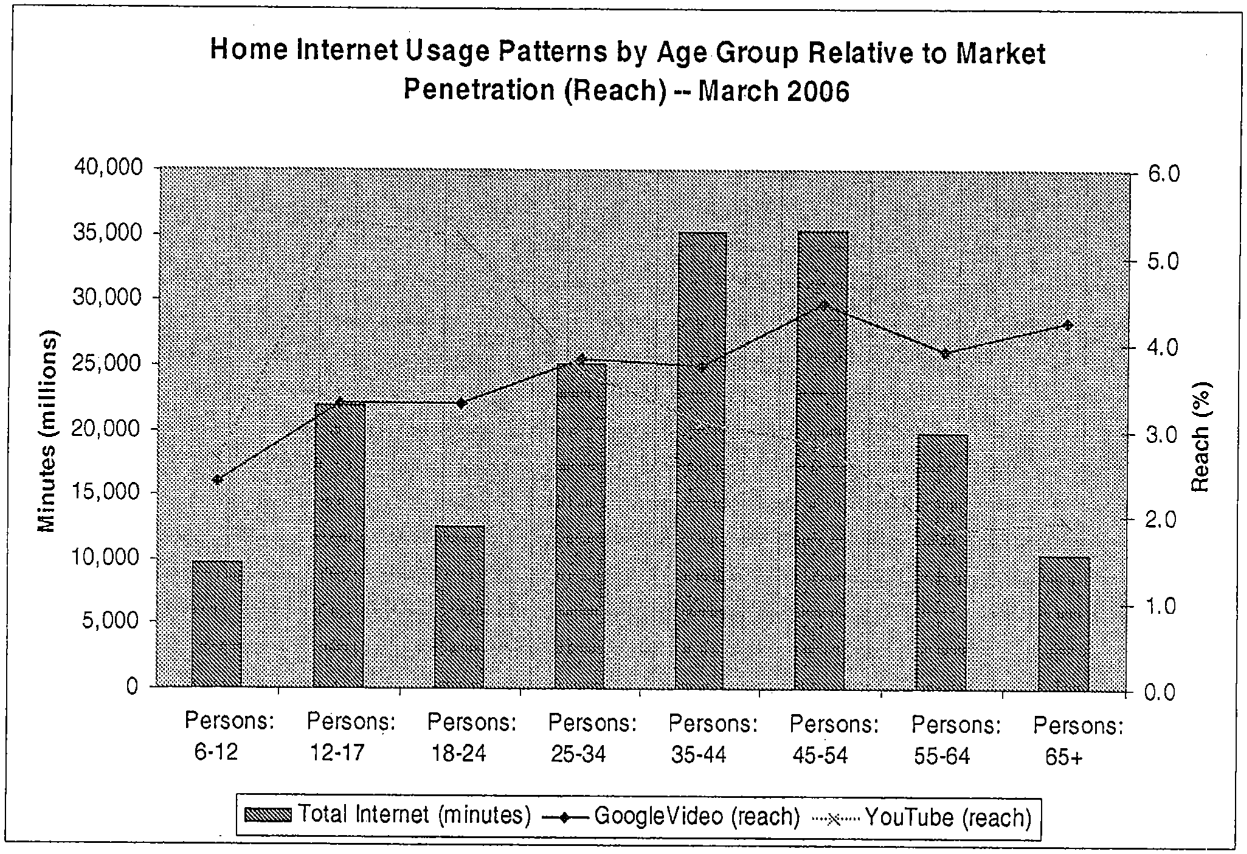
The desire to find online video has remained fairly stable



Source: Google Trends first live test – launch team warns data may not be accurate

Google's demographic is older than YouTube's; both have low absolute reach

The Google Video team should **reach agreement on its target demographic(s)** – *whether younger, older, or all inclusive*

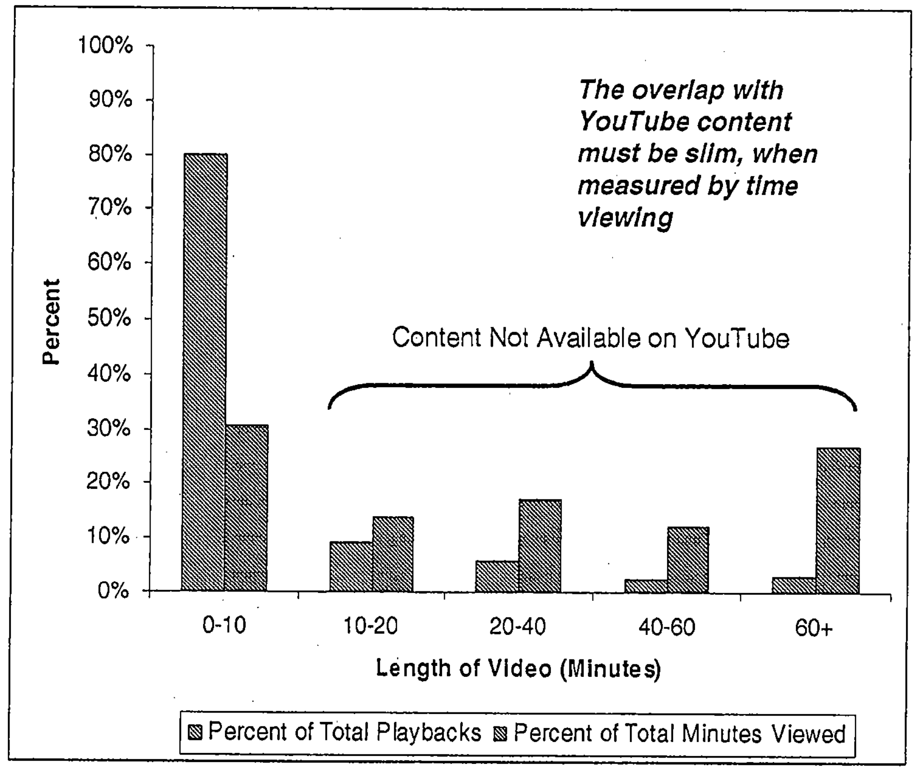


Source: MediaMetrix

Google 9

70% of the time, GV viewers are watching content that is longer than YouTube's maximum allowed content length

Percent of Total Playbacks and Percent of Total Minutes Viewed Relative to Video Length



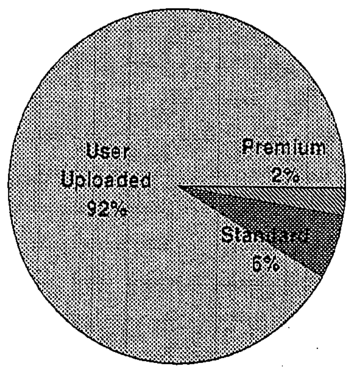
Source: Taylor Van Vleet
Sample of ~65K videos played on May 9, 2006

Google 10

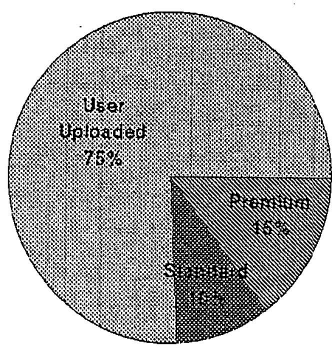
Overall consumption of partner content is played in proportion to its availability in the index

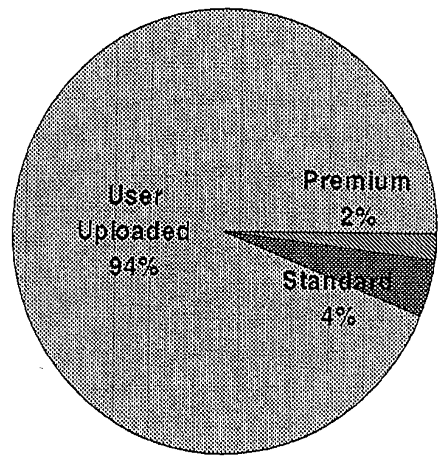
Acquired | **Consumed**

Video Titles Live in Index (total 0.7MM)



Video Hours Live in Index (total 49K)

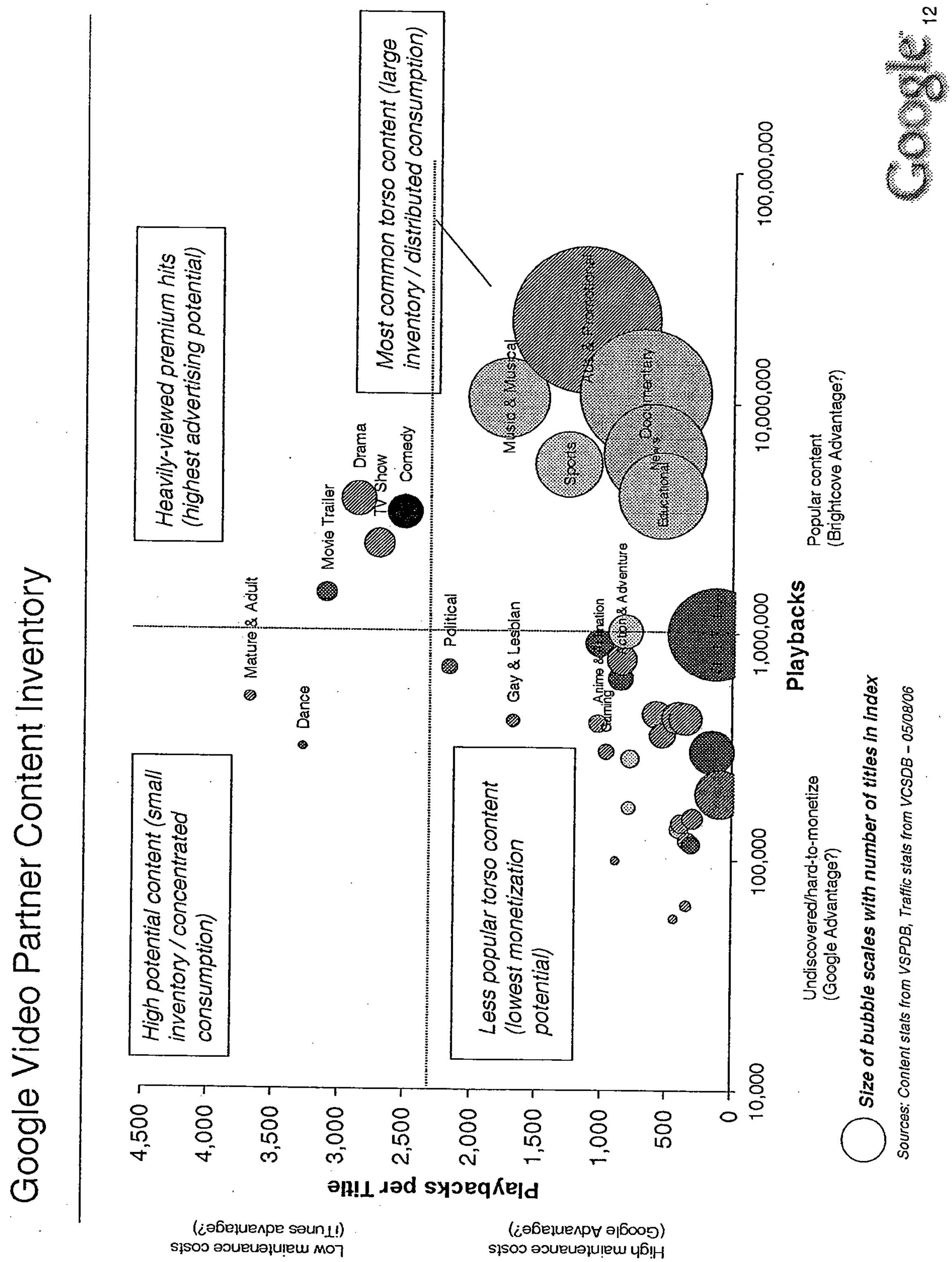




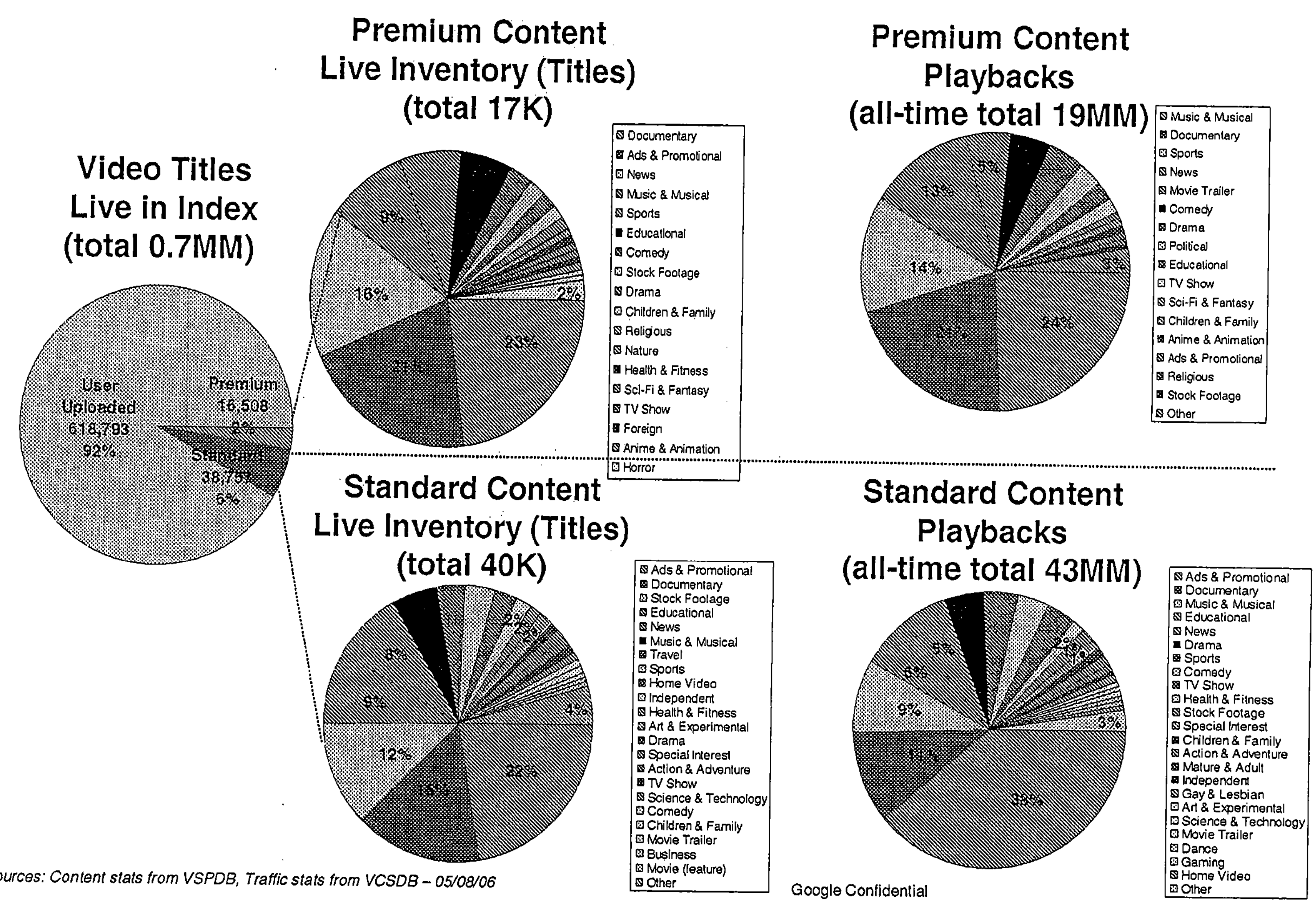
Video Titles Played (2006) (total ~1Bn)

Sources: Content stats from VSPDB, Traffic stats from VCSDB – 05/08/06

Google 11


Google Video Partner Content Inventory
Heavily-viewed premium hits (highest advertising potential)
Most common torso content (large inventory / distributed consumption)
High potential content (small inventory / concentrated consumption)
Less popular torso content (lowest monetization potential)
Mature & Adult
Dance
Movie Trailer
Drama
TV Show
Comedy
Political
Gay & Lesbian
Music & Musical
Sports
Ads & Promotional
Documentary
News
Educational
Anime & Animation
Gaming
Action & Adventure
Playbacks per Title
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Low maintenance costs (iTunes advantage?)
High maintenance costs (Google Advantage?)
10,000
100,000
1,000,000
10,000,000
100,000,000
Playbacks
Undiscovered/hard-to-monetize (Google Advantage?)
Popular content (Brightcove Advantage?)
Size of bubble scales with number of titles in index
Sources: Content stats from VSPDB, Traffic stats from VCSDB – 05/08/06
Google
12

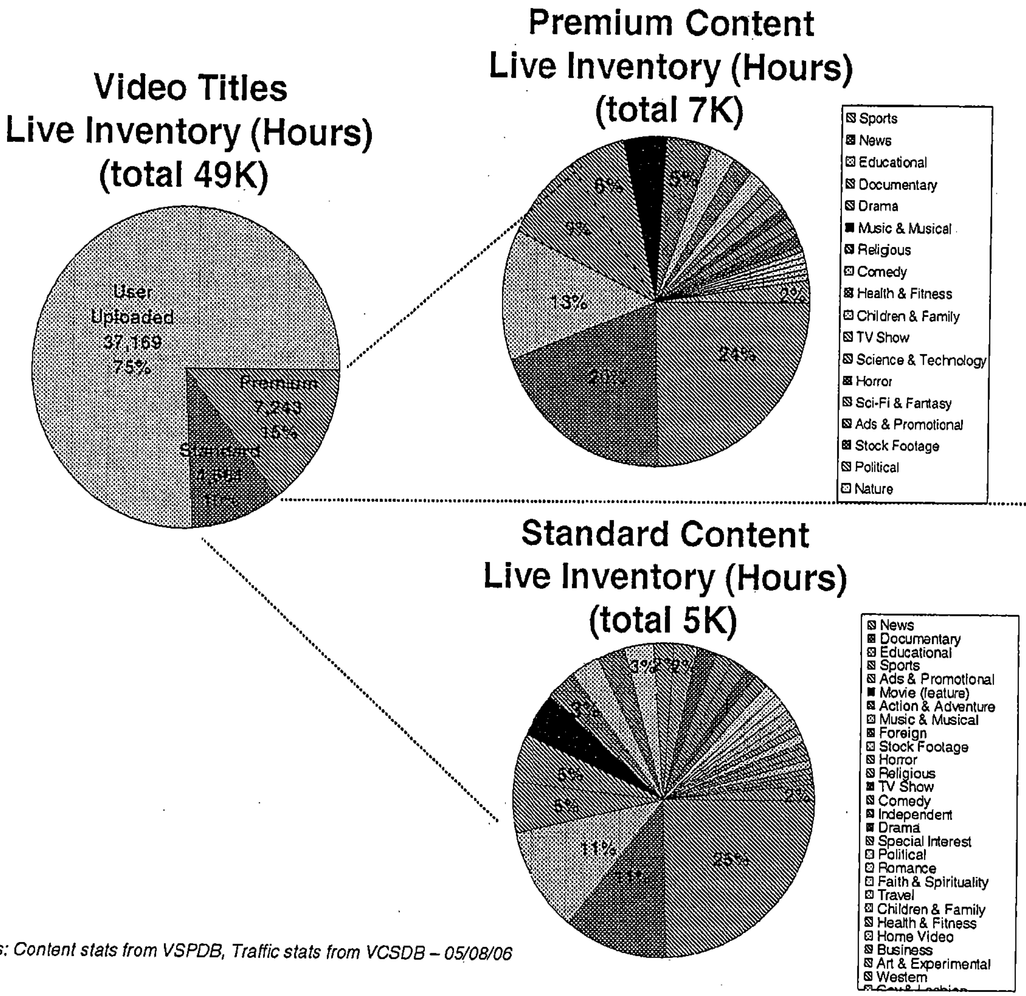
Of the wide range of partner content we have acquired, premium music and standard ads are most often played



Sources: Content stats from VSPDB, Traffic stats from VCSDB – 05/08/06

Google Confidential

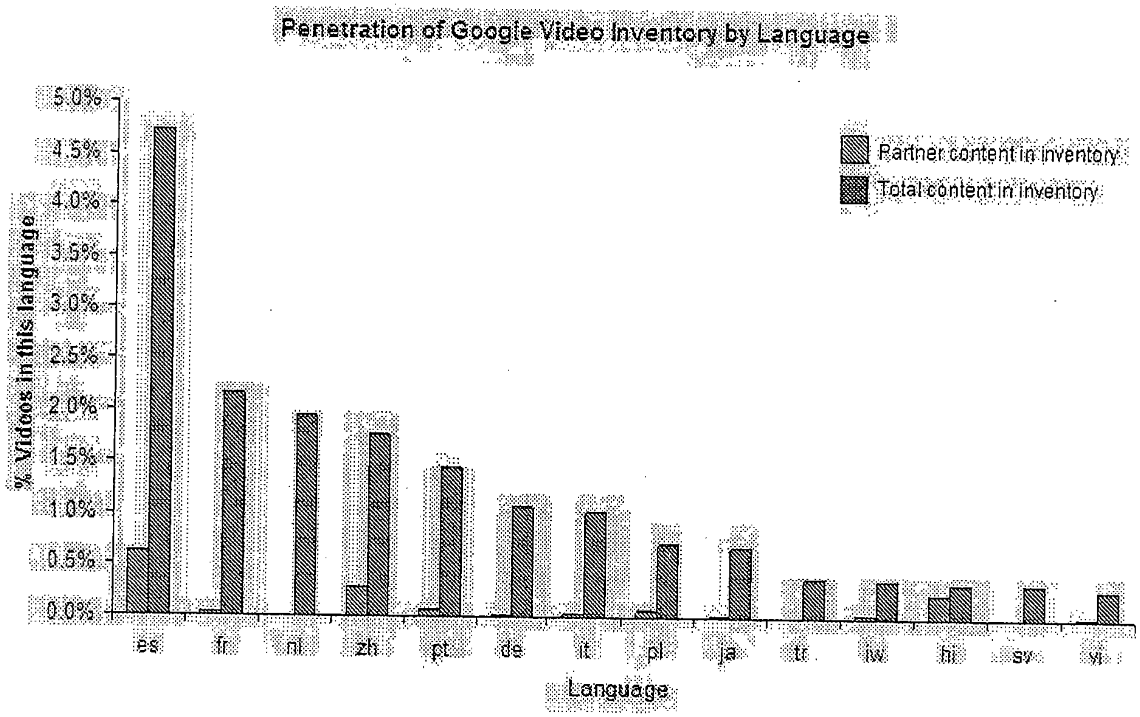
News, sports, educational and documentary videos make up the majority of partner content by duration



Sources: Content stats from VSPDB, Traffic stats from VCSDB – 05/08/06

Google

Partner content lags behind user-generated content for non-English languages



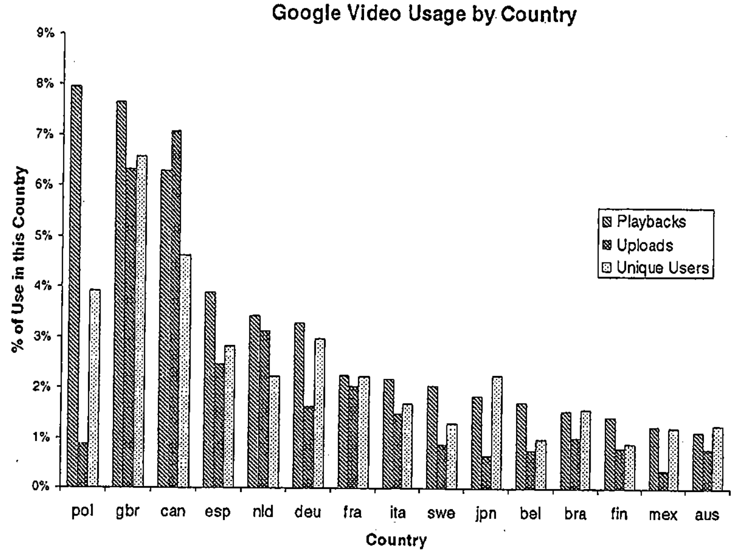
22% of user-generated content is non-English-language

Only 2% of partner content is available in non-English languages

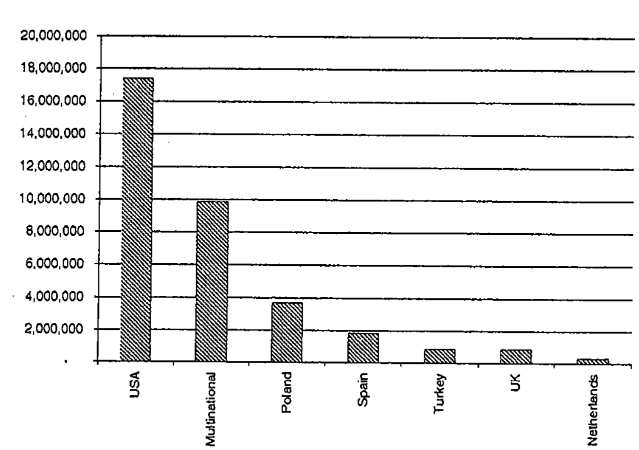
Google 15

Outside the US, Polish users view heavily but don't upload much; top videos with "multinational" appeal are second after US winners

Google Video Usage by Country



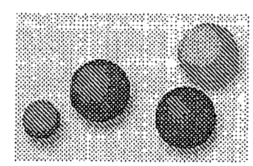
Which markets the top Google Videos hit



Total playbacks in April 06 for top 53 videos – "multinational" if top country had <35% of playbacks – from list of top 10 videos by country

Google 16

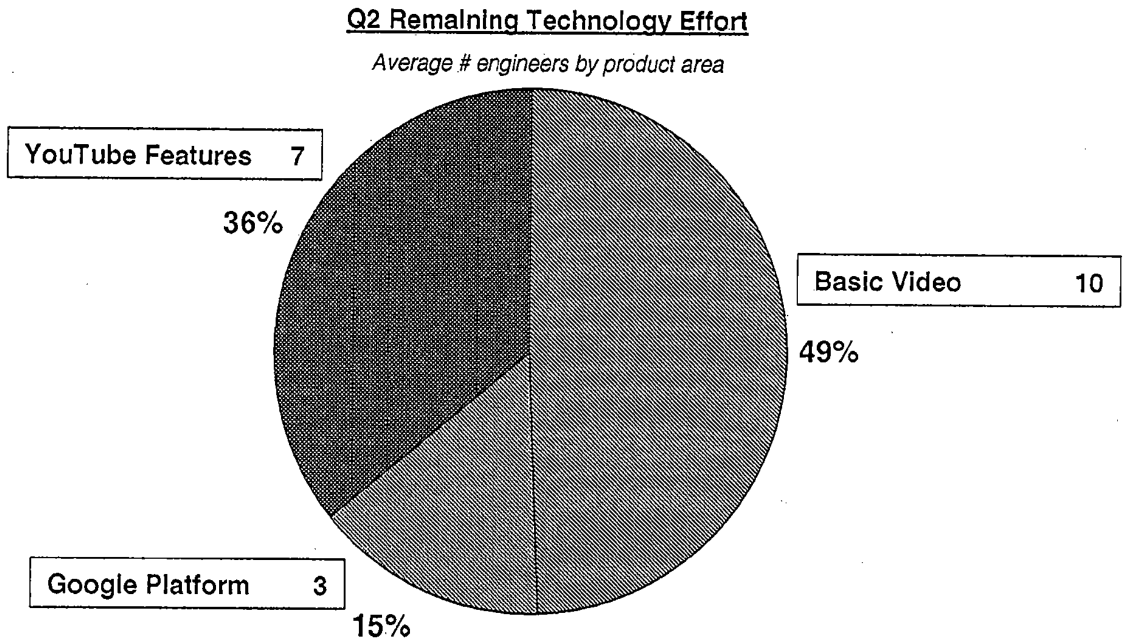
Current vision of the future
Today's resource deployment



Google Video 18-month Scenarios: today's focus is user-generated content and community

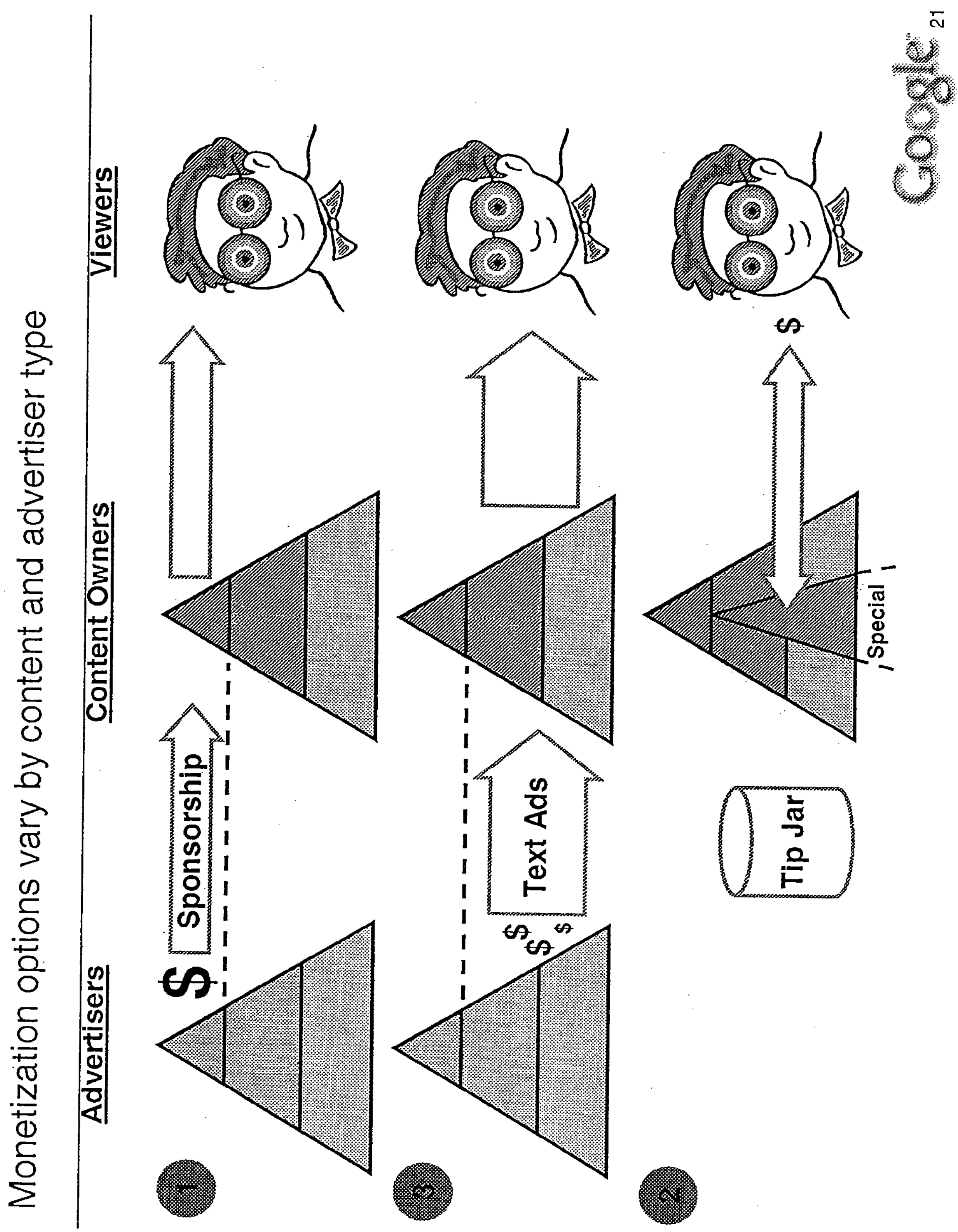
	Video Product Scenario	Description
1	Best Video Search	• Superior search and ranking capabilities for entire videos and for clips within larger videos • Comprehensive index of all online video content
2	Best Video Store for Professional Content	• Users purchase premium and standard content from an online marketplace • Users can eventually purchase clips of longer videos, as approved by content owners
3	Best Video Creation/Editing Tool	• Video capture devices are integrated with upload and editing tools • Users take advantage of a range of video editing features, including mash-ups • Users have plenty of storage to archive and keep track of their personal content
4	**Best Entertainment Destination for User-Generated Content**	• **Users can easily upload, track metrics, and get paid for (optional) their content** • **Users can easily find, share, and rank user-generated videos**
5	**Best Video Community**	• **Social circles are built around common video interests** • **Users rank and share interesting videos with each other**
6	Best Video Channels	• Channels deliver continuous premium/standard content (similar to TV) • Users choose from a variety of channels
7	Best Video Chat	• Users converse with each other using webcams or other live streaming capture devices • Users archive conversations for later retrieval
8	Best Broadcasting Tool	• Users can capture video from devices (including mobile) and broadcast it to a live, online audience
9	Best Video Translation and Cross-Border Distribution	• Users can access content from other countries with subtitles their own language
10	Most ubiquitous use of video across properties	• Users anywhere on Google (or partner) properties have access to viewing and uploading video content

We're first fixing the basics and catching up with YouTube features, while supporting other Google properties' use of video



A-563

Monetization


Monetization options vary by content and advertiser type
Advertisers
Content Owners
Viewers
1
$
Sponsorship
3
Text Ads
$
$
$
2
Tip Jar
Special
$
Google
21

Video monetization possibilities

1 Sponsored Video – requires high-touch premium content to premium advertiser matching – needs top content and TV-style CPMs to work

Sliding scale of ad frequencies as video gets longer

	# of people interested in seeing video*	$ amount advert'r will pay		movie length (mins)	minutes per ad	# ads per stream	advertising cut to content owner	$ value to content owner	$ each advertiser pays
		CPM	Per stream						
911 Loose change	4,560,448	$ 10.00	$ 0.01	82	15	5	75%	$ 171,017	$ 45,604
Amazing juggling	2,521,234	$ 10.00	$ 0.01	2.5	2	1	75%	$ 18,909	$ 25,212
Airbus build plane	412,772	$ 10.00	$ 0.01	7	3	2	75%	$ 6,192	$ 4,128
Octopus eats shark	201,412	$ 10.00	$ 0.01	2.5	2	1	75%	$ 1,511	$ 2,014
Jessica Simpson - These boots are made for walkin'	10,000,000	$ 10.00	$ 0.01	4.1	2	2	75%	$ 150,000	$ 100,000

2 Tip Jar – "busker" or "shareware" model may deliver strong incentives to user uploaders but nothing to corporate partners (Google would pass through all fees)

Tip jar

	# of people interested in seeing video*	Fraction who will tip	Average tip	$ value to content owner	*Rationale for tipping guesses*
911 Loose change	4,560,448	5%	$ 2.00	$ 456,045	*Big tip for charity or interest group: long highly-edited video, engaged viewers*
Amazing juggling	2,521,234	2%	$ 0.50	$ 25,212	*Viewers impressed - see single beneficiary with talent*
Airbus build plane	412,772	0.10%	$ 0.02	$ 8	*Low tip rate - corporate promo video*
Octopus eats shark	201,412	2%	$ 0.25	$ 1,007	*Viewers impressed - see single beneficiary with good content*
Jessica Simpson - These boots are made for walkin'	10,000,000	0.10%	$ 0.25	$ 2,500	*Low tip rate if its thought tip goes to Sony*

3 Text ads – familiar Google technology accessible to smaller advertisers can monetize standard partner and user content (Google could keep a fraction of ad revenues)

Text ads with click-throughs

	# of people interested in seeing video*	CTR	CPC	movie length (mins)	minutes per ad group	# ads on screen at a time	# ads per stream	$ value to content owner	$ value to content owner	$ each advertiser pays	clicks each advertiser sees
911 Loose change	4,560,448	0.50%	$ 0.25	82	15	4	20	75%	$ 85,508	$ 5,701	22,802
Amazing juggling	2,521,234	0.50%	$ 0.25	2.5	2	4	4	75%	$ 9,455	$ 3,152	12,606
Airbus build plane	412,772	0.50%	$ 0.25	7	3	4	8	75%	$ 3,096	$ 516	2,064
Octopus eats shark	201,412	0.50%	$ 0.25	2.5	2	4	4	75%	$ 755	$ 252	1,007
Jessica Simpson - These boots are made for walkin'	10,000,000	0.50%	$ 0.25	4.1	2	4	8	75%	$ 75,000	$ 12,500	50,000

* based on April 2006 actual playbacks (except Ms Simpson)

Source: Playbacks and movie length real data (apart from Ms Simpson); all else "what-if" analysis by BizOps

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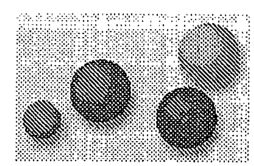
Why could text ads work for Google when they don't make much money for YouTube?

- Different objective: with payout to content owner, motivates low-cost "user-generated" content providers to upload (even with small sums)
- Better ad targeting: we own the on-site clicks, we can be smarter
- Better ads: AdWords advertisers in the advertising "torso" may opt out of AdSense and especially avoid unreliable content sites such as YouTube
- Wider range of content: more different kinds of ads make sense on Google Video with professional content
- Different demographic: GV users are older so advertisers prepared to pay higher CTR (? Is this true?)

How to get more content, digitization



We may be able to coax or force access to viral premium content

Ways to give users access to premium content (examples)

- Get **working ads model** to monetize premium content to show for free
- Enable download-to-own or streaming of **short clips at pennies per clip** from prepaid Google user account funds
- Install **hotline arrangements** for fast-tracking short clips with some bulk (capped) after-the-fact payment by Google
- Include in partnership terms that content owners will do at least one of the following:
  - **clamp down on copyright infringers** with DMCA notice within X hours
  - officially supply us their master version of viral clip for free streaming within Y hours
  - allow us to upload viral clip from infringing site and host it ourselves

  or… pay us for lost traffic
- **Threaten** a change in copyright policy as part of a PR campaign complaining about harm to users' interests through content owner foot-dragging – use threat to get standard deal sign-up

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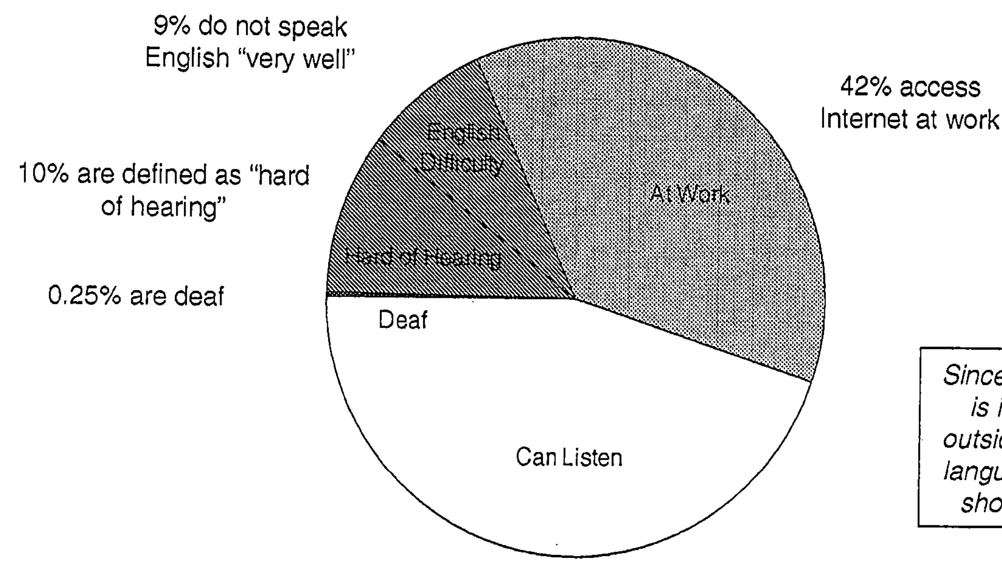
Content team should also push for Closed Captions

User Groups Benefiting from Closed Captioning



Since most of our content is in English, the use outside the US to support language comprehension should be even higher

Around 65% of the US population could benefit from closed caption viewing *even before new features in the product*

Source: US Census survey 2003, deaf survey
Note: 18% of census survey state they do not speak English at home; of these around half say they do not speak English "very well"

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Closed captioned content supports future differentiated product features

- Search for scene within the video
  - Cut to the clip of interest – time-coding of CC enables tie between audio and video stream
- Full-information Fast-forward
  - Enables "visual skimming" of video without loss of visual context
  - Smart selection of frames for fast-forward can include every CC screen and compress viewing to a small fraction of full runtime
- Subtitling/translation into multiple languages
  - Machine translation of CC content makes all video content instantly accessible and useful across the world

National Archives and Records Administration (NARA) Content Digitization Analysis

NARA Digitization Analysis Executive Summary

- Scope of Work:
  - The Video team asked BizOps to calculate the costs associated with digitizing NARA content and to update cost assumptions for existing digitization models
  - This analysis does not touch upon whether NARA content will be interesting to Google's users nor whether it should be prioritized above other partners' content in the digitization pipeline; such analyses would be an appropriate next step
- Key Findings:
  - It will be more cost effective for Google to digitize NARA's taped content in-house than to outsource this project
  - Completing this project in one year will cost Google an estimated $140,000

Profile of NARA Pipeline

Popular Topics

- NARA's suggested high use candidates for digitization:
  - Records of the Signal Corps
    - World Wars I & II training and combat videos
    - Ceremonies, parades, inaugurations
  - Edited Motion Picture Releases of the Universal Newsreel
    - 1929-1967
  - Records of U.S. Air Force Commands, Activities, and Organizations
    - 1900-1970
  - General Records of the Department of the Navy
    - Unedited and camera record footage covering Navy activities from World War II through 1965

Length

- Average length of motion picture films is 10 minutes

Format

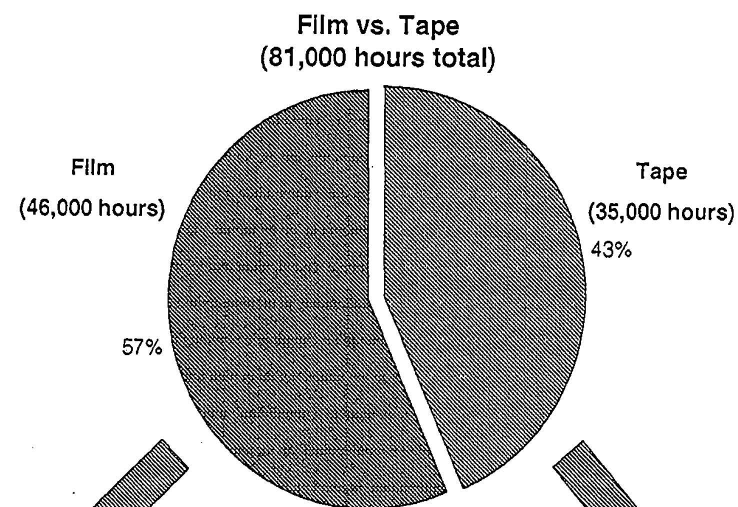
- 35,000 hours taped content
  - 60% ¾" Umatic
  - 17% 1" Type C
  - 12% ½" Betacam & BetaSP
  - 11% Other formats
- 46,000 hours filmed content
  - 66% 35mm gauge
  - 33% 16mm gauge

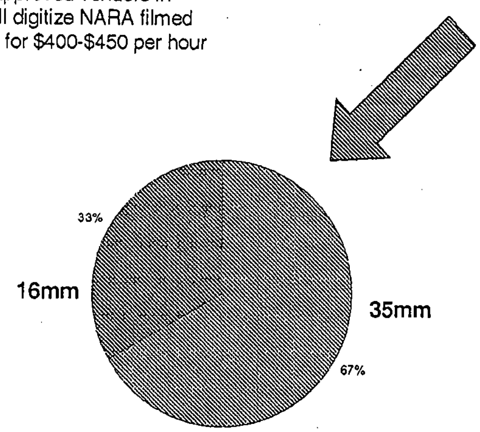
Sources: Daniel Blackman & NARA

Profile of NARA Pipeline: What to digitize first?

Film

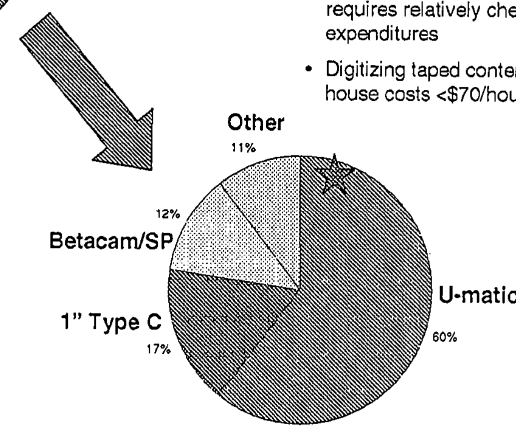
- Operations complex and expensive
- Special training and certification required to handle NARA film content
- Three approved vendors in D.C. will digitize NARA filmed content for $400-$450 per hour





Tape

- Handling taped content doesn't require special certification or significant training
- U-matic taped content represents a large pool of content (~21,000 hours) that requires relatively cheap capital expenditures
- Digitizing taped content in-house costs <$70/hour



Sources: NARA, Mark Yoshitake, Ed Miner, Yen-Jen Lee

What will it take to digitize? Machines Required:

Hours of Content by Tape Format	
Tape Format	**Hours**
U-matic	21,000
1" Type C	5,950
½" Betacam & Betacam SP	4,200

Tape Deck Life Span Assumptions
Low/Medium/High
2,000/4,000/6,000 hours
2,000/4,000/6,000 hours
2,000/4,000/6,000 hours

Tape Decks Required Based on Life Span Assumptions		
Minimum	**Mid**	**Maximum**
4	6	11
1	2	3
1	2	3

Irrespective of the life span assumptions, at least **two additional machines** should be kept on hand to ensure productivity isn't lost in the event of breakages

Note: Actual life spans of tape decks will vary based on the age of the machine when acquired, service record, and the exact model number

Sources: Hours by format: NARA & Daniel Blackman; Life span: Assumptions made by Dan Zheng, Ed Miner, Yen-Jen Lee, and Michael Baldwin

How long will it take to digitize NARA's U-matic content?

	Scenario 1	Scenario 2	Scenario 3
Amount of U-matic Content (hours)	21,000	21,000	21,000
Life Span of Machines (hours)	6000	4000	2000
Machines Operating Simultaneously	4	6	11
Length of Workday (hours)	8	8	8
Worker Efficiency During Workday	0.9	0.9	0.9
Months Required to Complete U-matic Content	33	22	12

The time required to complete the digitization of the U-matic NARA content will be related both to the number of machines running simultaneously and to the life span of those machines

What will it take to digitize? Tape Digitization: Hardware Options/Costs

Tape Deck Format	Purchase New	Purchase Used	Build	Source
¾" Umatic	Out of Production	$100 - $1,200 (e.g. Sony VP-7000)	Significant engineering challenges	New: Various Internet research Used: • Ebay • http://www.broadcaststore.com/store/model_detail.cfm?id=4936; • http://www.mvsvideo.co.uk/vtrs.htm
1" Type C	Out of Production (Unconfirmed)	$300 - $1,000	Significant engineering challenges	New: Various Internet research Used: Ebay
½" Betacam & Betacam SP	$6,000 - $15,000	$2,000 - $5,000	Significant engineering challenges	New: http://www.bhphotovideo.com/bnh/controller/home?A=details&kw=SODVWM2000P&is=REG&Q=&O=productlist&sku=353663 Used: Ebay

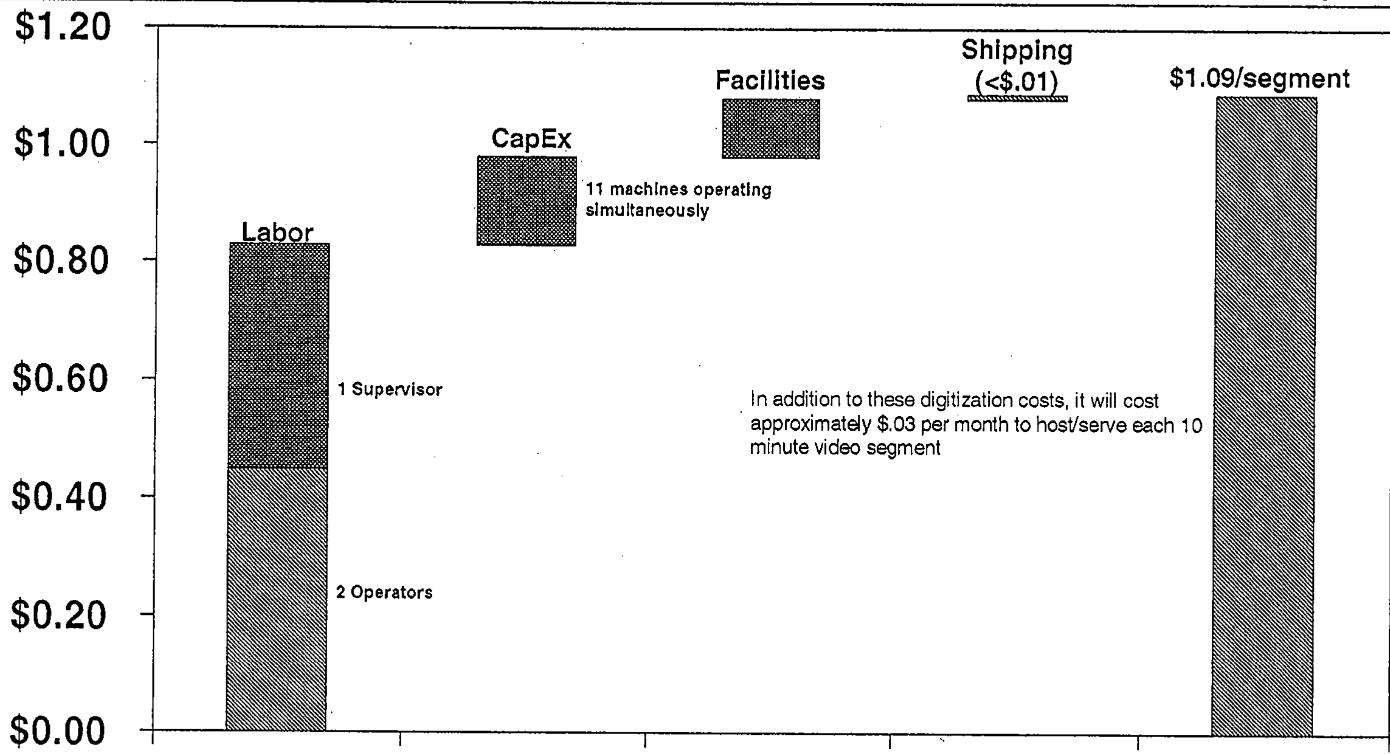
For used tape decks, large price ranges are due to differences in the age and condition of equipment; proper due diligence and experimentation will be required to find the best tape decks to use

Sourcing Challenges

- Machines that are out of production will have to be sourced from a variety of locations
  - Ebay
  - Third-party resellers
- It could be difficult to obtain a "fleet" of standardized machines; each might have slightly different features, age, and service history
- If cheap spare tape decks don't prove to be an adequate solution to address breakages, then we will need service contracts (cost TBD, but likely expensive)
- All NARA content must be digitized on-site at NARA; this must be taken into account when sourcing equipment

What will it cost?

Cost Components for the Digitization of a 10 Minute NARA U-matic Taped Segment



See Appendix for Sources and Additional Details

Notes: Scaling the operation would lower these costs. These cost estimates are only for an initial digitization partnership with NARA.

The cost of digitizing a video segment on 1" Type C format is comparable to the above. Betacam/Betacam SP slightly more expensive.

Service costs are TBD. They could be mitigated during this initial operation by purchasing spare tape decks on the front end. Spare decks are already accounted for in the CapEx costs on this page.

Serving costs TBD.