YouTube Trending Video Analysis Report

Executive Summary

This report analyzes patterns in YouTube trending videos using category-level and distributional statistics. The objective is to identify which content types generate above-average visibility and what characteristics define exceptional performance.

The average trending video receives approximately 1.96 million views. Performance varies substantially by category, indicating that content type is a major determinant of visibility.

Data and Context

The dataset consists of trending YouTube videos across multiple content categories. Each observation represents a unique video and includes engagement metrics such as views, likes, and category classification.

Category-Level Summary Statistics

Category	Videos	Avg Views
Autos & Vehicles	71	1,449,487
Comedy	544	1,422,507
Education	251	607,885
Entertainment	1621	1,744,879
Film & Animation	320	2,545,387
Gaming	103	2,325,087
Howto & Style	594	937,806
Music	801	6,027,683
News & Politics	504	459,931
Nonprofits & Activism	14	2,218,901
People & Blogs	495	1,348,809
Pets & Animals	140	744,319
Science & Technology	381	1,124,489
Shows	4	762,400
Sports	449	1,424,029
Travel & Events	59	996,254

Methodology

Category averages were computed to assess differences in performance. Distributional patterns were examined using histogram-based frequency analysis. Comparisons were made relative to the overall average view count.

Results

Music content dominates trending performance, with an average exceeding 6 million views. Film & Animation and Gaming also substantially outperform the overall mean. Education, News & Politics, and Pets & Animals consistently underperform.

High-visibility categories tend to exhibit strong early engagement and broad audience appeal. Low-performing categories are characterized by niche or informational content.

Interpretation

Category selection is the primary determinant of trending success. Entertainment-oriented content benefits from algorithmic amplification and network effects. Informational content relies more heavily on targeted audiences.

Limitations

The analysis does not account for upload timing, subscriber base, or promotional activity. Causal inference is limited due to observational data constraints.

Recommendations

Creators seeking visibility should prioritize high-performing categories and optimize early engagement. Marketers should align campaigns with music, gaming, and film-related content. Future analysis should incorporate engagement velocity and conversion metrics.

Appendix: Technical Notes

Statistics were computed using spreadsheet-based aggregation and filtering functions. Future implementations should integrate automated pipelines for reproducibility.

video_id	trending_date	publish_time	title	channel_title	category_id	category_name	tags	views	likes	dislikes	comment_count	comments_disabled	ratings_disabled	video_error_or_removed
VYQjWnS4cMY	6/2/18	5/5/18	Childish Gambino - This Is America (Official Video)	ChildishGambinoVEVO	10	Music	Childish Gambino|"Rap"|"Th	225211923	5023450	343541	517232	FALSE	FALSE	FALSE
FlsCjmMhFmw	12/14/17	12/5/17	YouTube Rewind: The Shape of 2017 | #YouTubeRewind	YouTube Spotlight	24	Entertainment	Rewind|"Rewind 2017"|"you	149376127	3093544	1643059	810698	FALSE	FALSE	FALSE
ffxKSjUwKdU	5/14/18	4/19/18	Ariana Grande - No Tears Left To Cry	ArianaGrandeVevo	10	Music	Ariana|"Grande"|"No"|"Tea	148689896	3094021	129502	242039	FALSE	FALSE	FALSE
zEf423kYfqk	5/15/18	4/20/18	Becky G, Natti Natasha - Sin Pijama (Official Video)	BeckyGVEVO	10	Music	Becky G|"Natti Natasha"|"N	139334502	1425496	119798	83941	FALSE	FALSE	FALSE
7C2z4GqqS5E	6/1/18	5/18/18	BTS (방탄소년단) 'FAKE LOVE' Official MV	ibighit	10	Music	BIGHIT|"빅히트"|"방탄소년	123010920	5613827	206892	1228655	FALSE	FALSE	FALSE
M4ZoCHtD9GI	5/14/18	4/12/18	The Weeknd - Call Out My Name (Official Video)	TheWeekndVEVO	10	Music	The|"Weeknd"|"Call"|"Out"	122544931	1427436	40837	55320	FALSE	FALSE	FALSE
TyHvyGVs4ZU	11/26/17	11/16/17	Luis Fonsi, Demi Lovato - Échame La Culpa	LuisFonsiVEVO	10	Music	Luis|"Fonsi"|"Demi"|"Lovato	102012605	2376636	117196	134224	FALSE	FALSE	FALSE
xTlNMmZKwpA	6/14/18	5/29/18	Cardi B, Bad Bunny & J Balvin - I Like It [Official Music Vid	Cardi B	10	Music	Cardi B|"I Like It"|"Invasion	94254507	1816753	102474	101077	FALSE	FALSE	FALSE
6ZfuNTqbHE8	12/8/17	11/29/17	Marvel Studios' Avengers: Infinity War Official Trailer	Marvel Entertainment	24	Entertainment	marvel|"comics"|"comic boo	91933007	2625661	53709	350458	FALSE	FALSE	FALSE
-8QJo3vKBO8	3/25/18	3/9/18	Maluma - El Préstamo (Official Video)	MalumaVEVO	10	Music	Maluma Music|"Maluma Off	87264467	815369	71494	35945	FALSE	FALSE	FALSE
tCKGJ2JY29iA	3/27/18	3/11/18	Taylor Swift - Delicate	TaylorSwiftVEVO	10	Music	Taylor Swift|"Delicate"|"Big	71560694	1928392	113990	162990	FALSE	FALSE	FALSE
DkeiKbqa0Zg	5/25/18	5/2/18	Calvin Harris, Dua Lipa - One Kiss (Official Video)	CalvinHarrisVEVO	10	Music	calvin harris|"calvin harris o	71017021	828626	36928	26279	FALSE	FALSE	FALSE
i0p1bmr0EmE	4/27/18	4/9/18	TWICE What is Love? M/V	jypentertainment	10	Music	TWICE What is Love|"TWICE	69295519	1324609	118647	238744	FALSE	FALSE	FALSE
aJOTlE1X90k	6/9/18	5/30/18	Maroon 5 - Girls Like You ft. Cardi B	Maroon5VEVO	10	Music	Maroon|"Girls"|"Like"|"You	66529577	2488565	43464	142410	FALSE	FALSE	FALSE
U98wWlXiJVal	4/27/18	4/6/18	Drake - Nice For What	DrakeVEVO	10	Music	Drake|"Nice"|"For"|"What"	60635812	994986	34165	55653	FALSE	FALSE	FALSE
vJi4Alon-3Q	5/29/18	5/4/18	Maluma - Marinero (Official Video)	MalumaVEVO	10	Music	Maluma Marinero|"Maluma	59877217	853193	61049	48391	FALSE	FALSE	FALSE
u9Mv98Gr5pY	5/14/18	4/23/18	VENOM - Official Trailer (HD)	Sony Pictures Entertainment	24	Entertainment	Venom|"Venom Movie"|"ve	59254638	1295189	47162	139879	FALSE	FALSE	FALSE
LsoLEjrDogU	1/12/18	1/3/18	Bruno Mars - Finesse (Remix) [Feat. Cardi B] [Official Video	Bruno Mars	10	Music	Bruno Mars|"Finesse"|"Card	57951412	1919583	73239	133601	FALSE	FALSE	FALSE
BNiEIO0vaBE	2/14/18	2/4/18	To Our Daughter	Kylie Jenner	22	People & Blogs	Kylie Jenner|"Kylie"|"Travis	56111957	0	0	0	TRUE	TRUE	FALSE
iWZmdoY1aTE	5/15/18	4/27/18	Ed Sheeran - Happier (Official Video)	Ed Sheeran	10	Music	edsheeran|"ed sheeran"|"ac	55054077	1378923	33465	67092	FALSE	FALSE	FALSE
ulNswX3If6U	6/9/18	5/10/18	Selena Gomez - Back To You (Lyric Video)	Selena Gomez	1	Film & Animation	selena gomez|"13 reasons w	54863912	922355	18037	41774	FALSE	FALSE	FALSE
_9YMpuLDnwo	12/11/17	12/3/17	42 HOLY GRAIL HACKS THAT WILL SAVE YOU A FORTUNE	5-Minute Crafts	26	Howto & Style	5-Minute Crafts|"DIY"|"Do it	54155921	378111	66632	24679	FALSE	FALSE	FALSE
QwievZ1Tx8	3/29/18	3/16/18	Marvel Studios' Avengers: Infinity War - Official Trailer	Marvel Entertainment	24	Entertainment	marvel|"comics"|"comic boo	52404970	1565579	32705	194290	FALSE	FALSE	FALSE
rRr1qjiRsXk	5/14/18	4/24/18	Sanju | Official Teaser | Ranbir Kapoor | Rajkumar Hirani	FoxStarHindi	24	Entertainment	Sanju Teaser|"Official Teaser	48654951	811144	33051	48941	FALSE	FALSE	FALSE
I_lblJ8Cq0o	1/2/18	12/19/17	G-Eazy - No Limit REMIX ft. A$AP Rocky, Cardi B, French	GEazyMusicVEVO	10	Music	BPG/RVG/RCA Records|"G-Ea	45938392	728696	43049	43541	FALSE	FALSE	FALSE
dfnCAmr569k	1/19/18	1/11/18	Taylor Swift - End Game ft. Ed Sheeran, Future	TaylorSwiftVEVO	10	Music	Taylor|"Swift"|"End"|"Gam	45141770	1844959	102849	148768	FALSE	FALSE	FALSE
J-dv_DcDO_A	4/30/18	4/12/18	ZAYN - Let Me (Official Video)	ZaynVEVO	10	Music	Let Me|"Pop"|"RCA Records	44782227	1320316	33742	85709	FALSE	FALSE	FALSE
2Vv-BfYoq4g	11/16/17	11/9/17	Ed Sheeran - Perfect (Official Music Video)	Ed Sheeran	10	Music	edsheeran|"ed sheeran"|"ac	43449654	1788960	24548	93428	FALSE	FALSE	FALSE
yDiXG7grPQ	6/1/18	5/16/18	Do You Hear Yanny or Laurel? (SOLVED with SCIENCE)	AsapSCIENCE	28	Science & Technology	AsapSCIENCE|"audio illusion	42799458	564804	33554	180913	FALSE	FALSE	FALSE
oWw1BdYhk-k	5/29/18	5/4/18	Liam Payne & J Balvin - Familiar (Official Video)	LiamPayneVEVO	10	Music	Liam|"Payne"|"Familiar"|"C	42390420	559496	18381	21650	FALSE	FALSE	FALSE

Data Dictionary: YouTubeVideos

column	description
video_id	Unique identifier code for each video.
trending_date	The last day in which the video appeared in the daily top trending list.
publish_time	Timestamp of when the video was published to YouTube.
title	Title of the video.
channel_title	Name of the channel on which the video appears.
category_id	Numeric ID for the video's category.
category_name	Plain-language name for the video's category. A complete list of encodings can be found in the VideoCategories table.
tags	List of topic tags for the video, each tag separated by a pipe ("|") symbol.
views	Number of views on the video on its listed trending date.
likes	Number of likes on the video on its listed trending date.
dislikes	Number of dislikes on the video on its listed trending date.
comments	Number of comments on the video on its listed trending date.
comments_disabled	Boolean whether or not comments are disabled for the video.
ratings_disabled	Boolean whether or not likes and dislikes are disabled for the video.
video_error_or_removed	Boolean whether or not the video was accessible at time of data collection.

Video Categories

category_id	category_name
1	Film & Animation
2	Autos & Vehicles
10	Music
15	Pets & Animals
17	Sports
18	Short Movies
19	Travel & Events
20	Gaming
21	Videoblogging
22	People & Blogs
23	Comedy
24	Entertainment
25	News & Politics
26	Howto & Style
27	Education
28	Science & Technology
29	Nonprofits & Activism
30	Movies
31	Anime/Animation
32	Action/Adventure
33	Classics
34	Comedy
35	Documentary
36	Drama
37	Family
38	Foreign
39	Horror
40	Sci-Fi/Fantasy
41	Thriller
42	Shorts
43	Shows
44	Trailers