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Who U.S. Adults Follow on TikTok

Adult TikTok users in the U.S. use the platform to follow pop culture and entertainment accounts much more than news and politics

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How we did this

This study seeks to better understand the accounts that U.S. adults choose to follow on TikTok. The TikTok user experience happens largely within the site's <u>For You page</u>, a feed that is "unique and tailored to each specific individual" based on many factors, such as the behavior they display while on the site. The <u>Following page</u>, by <u>contrast</u>, is constructed directly from the contents of accounts the user follows.

However, user interactions with posts from the accounts they follow play a nontrivial role in shaping their For You page. And studying these followed accounts can give us a better understanding on the content that users actively choose to look for on the platform.

To conduct this analysis, we started with a representative sample of U.S. adult TikTok users who gave us a valid account handle (their unique account name preceded by an "@" sign) for research purposes. All of these users are members of the Center's American Trends Panel (ATP).

For the 664 such users whose profile publicly displays the accounts they follow, we collected a list of all their followed accounts. That produced an initial list of 227,946 unique accounts. We then collected any available profile information for those accounts, such as their display name, bio and the number of followers they have. This collection occurred April 8-16, 2024. We also collected up to five of their most recent posts (if available). This content data collection was conducted June 14-20, 2024.

Using a combination of human coding and machine classification with Large Language Models (LLMs), we then categorized those accounts into categories based on whom the account belongs to and the type of content they post.

For more details on the categories we included in the analysis and how this data collection and classification was conducted, refer to the methodology of this report <u>here</u>.

Terminology

There are a variety of ways to categorize the different types of prominent accounts present on a social media platform. Here are some of the terms and definitions we have adopted for this study:

- **Followed accounts** Any TikTok account followed by any given user. The accounts a user follows on TikTok appear in that user's "Following" list.
- **Following page** A content feed on TikTok that consists solely of the content posted by the accounts that a given user follows.
- For You page (FYP) A content feed on TikTok that is algorithmically curated to each user, based on their interests and behaviors on the platform. The For You page is the default feed that is served to users as they visit the platform. The FYP may include posts from accounts that a given user follows, but it typically contains recommended content from other accounts beyond the user's following list.
- **Influencers and content creators** Used interchangeably to refer to accounts with at least 5,000 followers on TikTok who attained their popularity primarily due to their presence on the internet, especially on social media (often described as "internet-native"), as opposed to those with a significant level of public awareness outside of social media (such as movie stars, professional athletes or politicians).
- **Mega influencers and internet celebrities** Refers to influencer or creator accounts with at least 1,000,000 followers on TikTok.
- Mid-tier individual influencers and creators Refers to influencer or creator accounts that appear to belong to an individual who have between 5,000 to 1,000,000 followers on TikTok.
- **Small accounts** Refers to accounts with fewer than 5,000 followers on TikTok. These accounts are typically maintained by individual users as a personal profile on the site, are more often set to private, or often have not posted very much content.
- Entertainers, celebrities and other pop culture personalities Refers to accounts that appear to belong to traditional celebrities and notable figures from pop culture or the entertainment industry, including movie stars, bands or musicians, professional athletes, comedians and more, who attained their fame primarily outside of social media.
- Journalists, pundits and media outlets Refers to accounts that belong to professionals in the news media, either the official accounts of specific outlets or shows, or individual journalists, commentators or pundits. For this study, "journalists" are individuals with a current affiliation to a news organization that is listed in their account bio.
- **Politicians, public officials and government agencies** Refers to accounts that belong to either government agencies, or individual politicians or officials. For this study, "politicians" are individuals who have ever held elected office or are currently running for elected office.

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Accounts that post about ... – Topic labels in this study, such as "news," "politics" or "pop culture and entertainment," refer to accounts that were observed mentioning a given topic in their most recent posts as of the content collection period for this study (June 14-20, 2024). Accounts do not need to *primarily* post about a given topic to receive any of the content topic categorizations used in this study. Any mention is sufficient.

For further discussion of the account type and topic categories used in the study, refer to the report <u>methodology</u>.

Who U.S. Adults Follow on TikTok

Adult TikTok users in the U.S. use the platform to follow pop culture and entertainment accounts much more than news and politics

A new Pew Research Center analysis of the accounts Americans follow on TikTok highlights the centrality of internet-native content creators, prominent influencers and traditional celebrities on the popular short-form video platform. It also finds that users choose to follow far more accounts that post about pop culture and entertainment than those posting about news or politics.

To conduct this analysis, we surveyed a nationally representative group of U.S. adults who gave us access to their TikTok handles and identified all the accounts those users follow. We then categorized all of those followed accounts based on *who they are* and *what sorts of things they tend to post about*. These are some of the main findings:

What types of accounts do U.S. adults follow on TikTok?

Broadly, they follow lots of creators and influencers who have risen to their current level of prominence via social media, as well as traditional celebrities.¹ Together, these groups are around half of all the accounts followed by U.S. adults on the platform and the vast majority of the 100 accounts followed by the largest share of U.S. adults.

But they follow very few politicians, civic actors or traditional media outlets and journalists. Each of these groups makes up less than half of 1% of all the accounts we examined. And the typical U.S. adult on TikTok follows *no* accounts in each of these categories.

¹ Throughout this report, the terms "influencer" and "content creator" are used interchangeably to refer to accounts who attained their followership specifically via social media – as opposed to those with a significant level of public awareness outside of social media like movie stars, professional athletes or politicians.

A majority of accounts followed by U.S. adult TikTok users post about pop culture and entertainment, far fewer post about news and politics

Share of accounts followed by U.S. adult TikTok users ...

That are	Who post about
46% Mid-tier individual influencers & creators	59% Pop culture & entertainment
38 Small accounts	37 Viral music, dance or lip-sync performances
6 Mega influencers & internet celebrities	36 Humor & comedy
2 Entertainers, celebrities & other pop culture personalities	36 Stories, vlogs, & personal updates
2 Brand officials or company spokespersons	30 Promotional & sponsored content
0.4 Journalists, pundits & media outlets	15 Beauty & fashion
0.3 Industry professionals or experts	14 Reviews & product recommendations
0.2 Nonprofit organizations	10 Politics
0.1 Politicians, officials & government agencies	9 Food & beverage
	5 News

Note: Based on machine learning classification of each account's profile information and five most recent videos, if available. "Mega influencers & internet celebrities" are accounts with 1 million or more TikTok followers, "mid-tier individual influencers & creators" have between 5,000 and 1 million followers, while "small accounts" are accounts belonging to individuals with fewer than 5,000 followers. Totals may exceed 100% because multiple categories may apply to any given account. Accounts with fewer than 5,000 followers not included in post content analysis.

Source: Survey of U.S. adult TikTok users conducted Aug. 7-27, 2023. Data on respondents' followed accounts (n=227,946) collected April 8-16 and June 14-20, 2024.

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Americans on TikTok also follow a large number of accounts that do not fit cleanly in any of these categories. These are largely personal accounts that have relatively few followers and post infrequently, if ever. Some 38% of all accounts followed by U.S. adults on the site fit this description.

In many ways, these findings mirror how TikTok users describe their own motivations for using the platform when surveyed. A Center survey of adult internet users conducted earlier this year found that nearly half of TikTok users report that they <u>see political content on the site</u>, but that's not the primary reason most users say they are there. And <u>95% of U.S. adult TikTok users say they use it because it's entertaining</u>, while 41% say they use it to get news and 36% use it to keep up with politics.

What do the accounts followed by U.S. adult TikTok users post about?

Lots of entertainment and pop culture, and relatively little political content or traditional news. Content related to entertainment and pop culture appeared in 59% of these accounts during the time period we studied.

Other common topics include humor and comedy, personal vlogs, and viral music or dance clips – each of these three content types appeared in around a third of all the accounts we examined.

Meanwhile, a growing share of TikTok users <u>say they are getting news</u> on their feeds, and nearly half <u>say they see at least some political content there</u>. But this content is relatively rare in the accounts they specifically choose to follow. Around one-in-ten of these followed accounts post content related to political or social issues, and just 5% discuss news events, current events or breaking news.

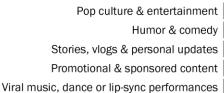
Accounts that discuss news and politics tend to mix these topics with humor, entertainment and other 'light' content

To the extent Americans' followed accounts discuss politics, it tends to be mixed with other topics. Some 43% of all followed accounts that discussed politics or current events during the study period also discussed entertainment and pop culture. And just over a third also posted humorous content.

There is also a fair amount of blending of politics and commerce: 16% of followed accounts that discussed politics

TikTok accounts that post about news or politics often discuss other topics as well

% of accounts followed by U.S. adult TikTok users **who post about news/politics** that **also post about** ...





Note: Based on machine learning classification of each account's five most recent videos, if available. Totals may exceed 100% because multiple categories may apply to any given account. Accounts with fewer than 5,000 followers not included in analysis. Source: Survey of U.S. adult TikTok users conducted Aug. 7-27, 2023. Data on respondents' followed accounts (n= 227,946) collected April 8-16 and June 14-20, 2024. "Who U.S. Adults Follow on TikTok"

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or current events also posted promotional or sponsored content.

In total, some three-quarters of all the accounts that mentioned politics or current events during the study period also mentioned at least one of the other topics we categorized in our analysis.

Discussion of news, politics is less prevalent among the platform's most-followed accounts

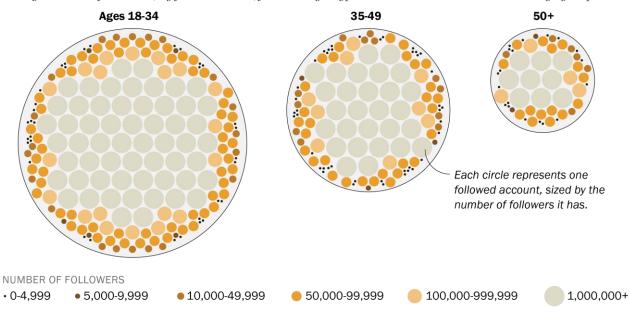
Some 12% of accounts with fewer than 500,000 followers discuss politics and/or news and current events. But that share falls to 7% among accounts with more than 1 million followers.

By contrast, a much larger share of high-follower accounts discuss topics such as humor, entertainment and promotional content.

The typical following list contains a range of account sizes, from niche accounts to those with millions of followers

Around one-fifth of the typical adult's following list are social media influencers with more than 1 million total followers. At the same time, about 25% of the accounts a typical user follows are small, mostly personal accounts with fewer than 5,000 followers themselves.

On average, TikTok users ages 18 to 34 follow more than three times as many accounts as those 50 and older. They also follow a larger number – and a larger share – of very popular accounts with more than 1 million followers.



Younger adult TikTok users follow more – and more popular – accounts

Average number of accounts, by follower count, followed by a typical U.S. adult TikTok user in each age group

Source: Survey of U.S. adult TikTok users conducted Aug. 7-27, 2023. Data on respondents' followed accounts (n=227,946) collected April 8-16, 2024.

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Every user's following list is largely unique to them

The accounts that Americans follow on TikTok are almost entirely bespoke to each individual user. The 664 TikTok users in this study collectively follow nearly a quarter-million other accounts. Some users follow only a handful of accounts, while others follow thousands.

There is also nearly no overlap in the accounts U.S. adults follow. Just 5% of these accounts are followed by five or more users in the study.

How these findings compare with other social platforms

In 2022, <u>we conducted a similar analysis</u> of the accounts U.S. adults follow on the social media platform X (then known as Twitter). These two analyses highlight one key difference in following behaviors on each site.

Specifically, the accounts followed by the largest share of U.S. adults on Twitter contained a much higher proportion of media outlets or journalists, governmental or political figures, or policy/advocacy groups than is true on TikTok today. These accounts are nearly nonexistent among the most-followed accounts on TikTok at the time of our new study.

Even so, accounts related to politics and the news media made up a very small share of *all* the accounts followed by U.S. adults on Twitter. And around one-quarter of all followed accounts on Twitter at the time were related to the world of entertainment writ large.

And on Twitter as on TikTok, a sizable share of followed accounts – many of which had few followers or posts – simply did not fall into any of the categories in our analysis.

A profile of U.S. adults' following behavior on TikTok

The 664 U.S. adult TikTok users whose following lists could be observed for this study collectively follow around a quarter-million unique accounts. The median user follows 144 other accounts on the platform, although this number varies greatly from person to person: 10% of users follow fewer than five accounts, while another 10% follow more than a thousand. And younger users tend to follow a larger number of accounts than their older counterparts.

There is also very little overlap in the accounts that U.S. adults follow on the platform. The majority of these accounts – roughly 150,000 of them – are followed by just a single user in our sample. And only around 10,600 – or 5% of the total – are followed by more than five users. If we

were to randomly select any two users from the study, on average they would have fewer than two followed accounts in common with each other.

Around four-in-ten of these followed accounts have fewer than 5,000 followers themselves, while 6% have a million followers or more. But these so-called "mega influencers" make up around one-fifth (22%) of the accounts that a typical American adult on the site follows.

Smaller accounts make up an especially prominent share of the accounts followed by older TikTok users. Just 15% of the accounts followed by the average 18- to 34-year-old have fewer than 5,000 followers, but that share rises to around 30% for users 35 and older.

The types of accounts U.S. adult TikTok users follow

After collecting all the accounts followed by this representative group of users, we first wanted to see what types of accounts they are.

By examining their site bios and other available information, we found that:

- 38% of these accounts are small accounts (fewer than 5,000 followers) that are largely maintained by individuals as a personal profile on the site.
- 46% belong to individual creators or influencers who have built up a larger audience, but who are not publicly prominent outside of their specific social media niche.

A majority of accounts followed by U.S. adult TikTok users are creators, influencers and internet celebrities

% of accounts followed by U.S. adult TikTok users that are ...

Organizations and public figures	influencers & creators	Small accounts (<5K followers)
12%	46	38
 organization a 6% Mega 2 Entertain 2 Brand off 0.4 Journalis 0.3 Industry 0.2 Nonprofi 	 12% 46 38 % of accounts followed by U.S. adult TikTok users within the organization and public figures group that are 6% Mega influencers & internet celebrities 2 Entertainers, celebrities & other pop culture personalities 2 Brand officials or company spokespersons 0.4 Journalists, pundits & media outlets 0.3 Industry professionals or experts 0.2 Nonprofit organizations 0.1 Politicians, officials & government agencies 	

Note: Accounts classified into categories based on publicly available profile information and the content of their five most recent videos, if available. Classification performed using machine learning. Totals may not sum to 100% because of accounts with missing data. Source: Survey of U.S. adult TikTok users conducted Aug. 7-27, 2023. Data on respondents' followed accounts (n=227,946) collected April 8-16 and June 14-20, 2024. "Who U.S. Adults Follow on TikTok"

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 12% belong to organizations, highly prominent influencers with more than 1 million followers or individuals with a significant level of public prominence outside social media.

The 12% of accounts that belong to organizations and public figures is itself made up of many different subgroups. Nearly half of these accounts are internet celebrities and mega-influencers with more than a million TikTok followers. That works out to roughly 6% of all the accounts followed by U.S. adults on the platform.

Around one-in-five accounts in this group belong to consumer products or commercial brands. That works out to 2% of all followed accounts. And a similar share are traditional celebrities (such as movie stars or individual athletes) or celebrity groups (such as bands or comedy troupes).

Very few of these accounts belong to people or entities directly related to politics, government or the news media. Each of these groups make up less than half of 1% of all accounts followed by U.S. adult TikTok users. And the typical U.S. adult on the platform follows *no* professional journalists or political commentators, news organizations, politicians or candidates, or government agencies.

What the accounts followed by U.S. adult TikTok users post about

In addition to classifying what the accounts followed by U.S. adult TikTok users *are*, we also wanted to know what sorts of topics they *post about*. To do this, we collected each account's five most recent videos (data collection conducted June 14-20, 2024) and used machine learning to identify several common topical themes and content types present in these videos.²

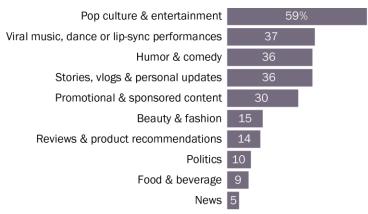
² Examining just a handful of an account's most recent videos cannot provide a comprehensive view of all the content it ever posts. But it does provide a snapshot of the content types common on the platform at the time of the analysis.

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As noted above, 38% of the accounts followed by U.S. adults on TikTok have fewer than 5,000 followers. We excluded these accounts from this part of the analysis, for several reasons. First, many of these accounts simply have very little content to examine. More than half have posted fewer than 20 videos over the life of the account, and a quarter have never posted. Around 10% of these smaller accounts are set to private, which prevented us from accessing their videos at all (just 2% of followed accounts with 5,000 or more followers are private).

More than half of accounts followed by U.S. adult TikTok users post about entertainment and pop culture

% of accounts followed by U.S. adult TikTok users that post about ...



Note: Based on machine learning classification of each account's five most recent videos, if available. Totals may exceed 100% because multiple categories may apply to any given account. Accounts with fewer than 5,000 followers not included in analysis. Source: Survey of U.S. adult TikTok users conducted Aug. 7-27, 2023. Data on respondents' followed accounts (n=227,946) collected June 14-20, 2024. "Who U.S. Adults Follow on TikTok"

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The most common topics posted by these accounts are related to entertainment and popular culture. Over half (59%) of followed accounts were observed posting pop culture or entertainment-related material. Other common topics are highlights of the short-form vertical video format native to TikTok. Some 36% of accounts were observed posting humorous or comedic content, such as jokes, skits and parody videos. And 37% posted made-for-social media music, dance or lip-sync performances.

Focus on news and politics content

Content related to news and politics is quite rare by comparison. Only 10% of these followed accounts were observed posting about politics during the study period, and just 5% posted content directly related to news or current events.

And as rare as this content is in general, it is even rarer among the most popular accounts. Around 12% of accounts with fewer than 500,000 followers could be observed posting about news and/or politics. For accounts between 500,000 and 1 million followers, that share is just 9%, and above 1 million followers it drops even further to 7% of accounts.

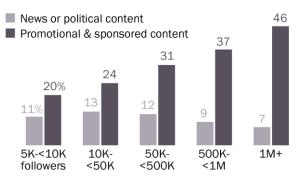
By contrast, a much larger share of popular accounts post promotional content (including self-promotion). Around one-in-five accounts with 5,000 to 10,000 followers were observed posting promotional content of some kind. But that share increased to 46% for accounts with a million followers or more.

The accounts that do post about news or politics typically do so in the context of other types of content. Three-quarters of accounts that were observed posting about news or politics also posted content from one or more of the other category types we looked at – often humor and/or pop culture.

And although older TikTok users tend to follow fewer accounts than younger users do, news and politics makes up a slightly larger share of the following lists of older users. For users ages 50 and older, the average share of followed accounts

Popular TikTok accounts less likely to post about news and politics but more likely to post promotional content

% of accounts followed by U.S. adult TikTok users that post about _____, by follower count



Note: Accounts classified into categories based on publicly available profile information and the content of their five most recent videos, if available. Classification performed using machine learning. Source: Survey of U.S. adult TikTok users conducted Aug. 7-27, 2023. Data on respondents' followed accounts (n=227,946) collected April 8-16 and June 14-20, 2024. "Who U.S. Adults Follow on TikTok"

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observed posting about news or politics is 10%, compared with 7% for users 18 to 34. By contrast, the share of followed accounts that post about pop culture and entertainment is lower among older users than younger ones.



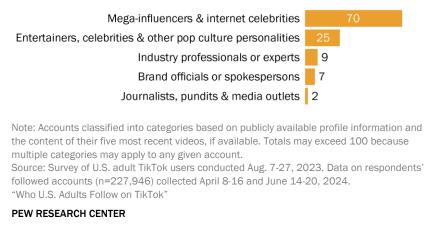
Focus on the 100 accounts followed by the largest share of U.S. adults

The prominence of influencers and entertainers in Americans' following lists is even more apparent if we focus on the 100 individual accounts followed by the largest share of U.S. adults.

Seventy of these 100 accounts belong to internet celebrities or influencers who rose to prominence by way of social media. The second largest group – 25 of the top 100 – belong to "traditional" celebrities, such as actor Will Smith, comedian Kevin Hart and TV personality Gordon Ramsey.

Influencers and internet celebrities dominate the 100 accounts followed by the largest share of U.S. adults on TikTok

Of the 100 accounts followed by the largest share of U.S. adult TikTok users, number that are ...



And as was true of Americans' followed accounts more broadly, traditional journalistic enterprises are a rarity in this list of 100 as well. Just two "news organization" accounts are present on this list: ESPN and The Daily Show.

These accounts also mirror the broader universe when it comes to the topics they post about. Twothirds of the most followed accounts posted humor or comedy content, while more than half of them posted personal updates or vlogs. And more than half of them posted content that directly endorsed a brand or product.

Meanwhile, just nine of the 100 top accounts mentioned news and political topics on their content. And most of these were from outside the world of politics or traditional news, with one such example being music artist Lizzo.

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Methodology

This report is based on 664 members of Pew Research Center's American Trends Panel (ATP) who consented to share their username for research purposes, provided a verifiable TikTok handle and whose list of followed accounts is publicly visible on their profile. <u>Refer to our earlier report</u> <u>methodology for more details</u> about the ATP and our handle collection and validation process.

Identification and data collection from followed accounts

For each of the TikTok accounts belonging to a respondent in our study, we first collected the full list of the accounts they follow by going into their profile page, viewing the accounts listed on their following list, and then attempted to collect their account information.³ Once these individual account lists were consolidated to remove duplicates, we were left with a total of 227,946 distinct followed accounts.⁴

For each of the followed accounts, we used an automatic web scraping tool to go to the account's page and collect the following information:

- Profile metadata, such as the number of followers it has and the number of videos they have posted
- Any information in the "bio" field of the account
- For accounts with 5,000 or more followers⁵ and that were publicly accessible (n=132,538), we also collected video, image and metadata information for the five most recent posts available on the account.⁶

This data collection took place in multiple stages. The initial followed account collection was collected from April 8 to 16, 2024, while the collection for their most recent videos happened between June 14 and June 20, 2024.⁷

³ 39 out of the 664 panelists who provided a verifiable TikTok username and also had a publicly visible list of followed accounts did not follow any accounts during the data collection period of this study.

⁴ This collection process yielded 94% of the total number of accounts followed by U.S. adults shown on the users' profile page. 17,951 of the aggregate followed accounts (non-unique) were inaccessible for collection, either because they were unlisted on the users' following lists or because the web scraping tool encountered an error that could not be resolved when attempting to retrieve the information. These accounts are excluded from the analysis.

⁵ 8,094 accounts with 5,000 or more followers were inaccessible for content collection, either because they were set to private or because the web scraping tool encountered an error that could not be resolved when attempting to retrieve the information. These accounts are excluded from the content analysis.

⁶ In cases where fewer than five posts were available on the account, we collected all available posts.

⁷ For accounts that were unavailable for content collection at this time, we attempted re-collection between Aug. 12 and 15, 2024.

Content analysis and categorization of the accounts with more than 5,000 followers followed by U.S. adult TikTok users were performed in two steps:

- First, we used a series of audio-to-text and video-to-text machine learning models to process and transcribe the content we had collected for each account. This information was all combined with profile details from the account to create a single text description that provides a snapshot of the account and its recent content.
- Next, we passed each account text description to OpenAI's GPT-40 and GPT-40-mini models along with an instruction prompt describing our codebook categories to obtain relevant classifications and labels for each account.

These steps are described in more detail below.

Consolidating profile and video details into account descriptions

For each account, we analyzed the five most recent posts available on the profile. In addition to metadata (such as the title and description) for each post, for video posts we collected full video files (with audio) and thumbnail images, and for slideshow posts we collected all images in the slideshow. This information was then processed and combined according to the following steps:

- Audio from video files was extracted and passed to an <u>Audio Spectrogram Transformer model</u> <u>finetuned on the AudioSet dataset</u>. This AST model inputs audio sequences, distinguishes speech from music, and then provides additional labels for the clip using a broad ontology of everyday sound types.
- For videos where the AST model identified "speech" as the primary audio label, the full audio from the video was then passed to OpenAI's <u>whisper transcription model</u>. For a balance of accuracy and fast processing time, we used the 769M-parameter "<u>medium</u>" version of this model. On English-language speech, Whisper performs speech recognition and transcription. On speech in languages other than English, the model also performs translation and returns English-language transcriptions.
- All thumbnail images and slideshow images were passed through an optical character recognition (OCR) system using the python library <u>EasyOCR</u>. This OCR pass identified and extracted any text that could be read in the images.
- All thumbnail images and slideshow images were also passed through <u>moondream2</u>, a lightweight vision language model that can perform text generation conditioned on an image. We used this model to produce short descriptions of the subject of each image.

Once all posts collected for a given account were processed in this way, the resulting information was combined into a single account description text using the following template:

ACCOUNT URL: https://www.tiktok.com/@<USERNAME FROM PROFILE> USERNAME: <USERNAME FROM PROFILE> SCREEN NAME: <SCREEN NAME FROM PROFILE> FOLLOWER COUNT: <FOLLOWER COUNT FROM PROFILE> VIDEO COUNT: <VIDEO COUNT FROM PROFILE> VERIFIED: <VERIFICATION STATUS FROM PROFILE> BIO: <BIO FROM PROFILE> RECENT HASHTAGS: <LIST OF HASHTAGS USED IN RECENT POSTS>

This post is a video, captioned: "<POST TITLE/CAPTION>"

The thumbnail shows <DESCRIPTION OF IMAGE> The following text can be read in the image: "<OCR OUTPUT>"

The audio used in the video can be classified as: <LIST OF AUDIO LABELS>

TRANSCRIPT: "<OUTPUT OF TRANSCRIPTION MODEL>"

This post is a slide show, with <N IMAGES> images, captioned: "<POST TITLE/CAPTION>"

Here are descriptions of the images: - <DESCRIPTION OF IMAGE 1> - <DESCRIPTION OF IMAGE 2> The following text can be read in the images: "<COMBINED OCR OUTPUTS>"

Classifying account descriptions

Once these account descriptions were produced for each account, we used the OpenAI batch API to generate relevant classifications and labels, using both the GPT-40 and GPT-40-mini endpoints. These models were provided with each description in turn, along with a detailed instruction prompt explaining the codebook to be used for labeling and classification. (To see this prompt in full and the details of the codebook, refer to <u>Appendix A</u>).

The output of these models was validated using two hand-labeled validation sets. The first of these consists of the 194 accounts followed by the largest number of panelists. Accounts in this "popular accounts" sample were each triple-coded by a set of four expert annotators. The second validation

set includes 200 randomly-sampled accounts, along with an additional oversample of 250 observations identified as predicted positive and negative cases for the "news" and "politics" categories, since these were particular categories of interest that occurred rarely in the data. Accounts in this "general accounts" sample were each coded between two and four times by the same set of four expert annotators. For both samples, ground truth labels were established from the set of multiple annotations per account using a <u>Dawid-Skene aggregation model</u>. (For full interrater reliability metrics, refer to <u>Appendix B</u>).

Considering all the available ground truth data together to calculate unified performance metrics for the models evaluated, we found that GPT-40 achieved an overall (micro averaged) accuracy score of 0.95, and an overall (micro averaged) F1 score of 0.77.

GPT-40-mini's performance was close to this level, with an overall (micro averaged) accuracy score of 0.94 and an overall (micro averaged) F1 score of 0.72. For each category, we used predictions from the model that performed the best at that specific task. When classifying accounts into non-mutually exclusive topical content categories, the model used predicted at least one of the same topical categories chosen by human annotators in 92% of cases. For organization subtypes, it overlapped with annotators in 79% of cases, and for public figure subtypes, it overlapped with annotators in 100% of cases. A detailed table of per-category metrics can be found in Appendix B.

Note that in cases where an individual user in the sample follows no other accounts, we consider the share of accounts in their following list that fall into each category to be zero as well.

Below are the full codebook categories that we considered for this study:

Followed account and content classification codebook

Codebook category	Description	Consolidated category	
Account category			
Individual creator or influencer	Accounts with 5K+ followers that appear to be controlled by a single person (inclusive of "couple" or "family" accounts)	Individual influencer & creator	
Organization	Accounts controlled by a group or organization	Organization	
Public figure	Accounts of an <i>individual</i> that appear to be controlled by a public figure	Public figure	
Organization and public fig	gure subcategory		
Mega-influencer/internet celebrity	Someone who is primarily famous for their internet persona (with a min. threshold of 1M+ followers)	Mega-influencers & internet celebrities	
ndividual entertainer or celebrity	Someone who is a "traditional celebrity" (sports/entertainment/etc.)	Entertainers, celebrities &	
Celebrity or entertainment group	A group of "traditional celebrities" (a band, sports team, dance group, etc.)	other pop culture personalities	
Consumer company or prand	A company that sells consumer products or services (Nike, Apple, etc.)	Brand officials or company spokespersons	
Company or organization spokesperson	An individual who is a public figure because they speak on behalf of a company/org		
Public professional	An individual who is a public figure because of their career, independently of a specific organization (with a min. threshold of 1M+ followers)	Industry professionals or experts	
Active affiliated journalist	A journalist with a listed current affiliation		
Professional political commentator	A professional political commentator/pundit (affiliation- independent)	Journalists, pundits & media outlets	
Media outlet	An organization that is a media outlet, news org, or other journalistic enterprise		
Nonprofit organization	An organization that is an NGO, charity, nonprofit, or advocacy group	Nonprofit organizations	
Politician or government official	An individual who is an elected official, government employee, or political candidate	Politicians, officials or	
Government agency	An organization that is a government agency, department, or official government account	government agencies	
Content category			
Politics	Content that is about politics	News or Politics	
News	Content that is about news or current events	News of Politics	
Entertainment	Content that is about pop culture, fandom, and the entertainment industry	Pop culture & entertainmen	
Humor	Content that is humorous or comedic, includes skits	Humor & comedy	
Promotional	Promotional, branded, or paid partnership content (including self-promotion)	Promotional & sponsored content	
/log	Stories, vlogs, personal updates about the account owner's life	Stories, vlogs & personal updates	
Music	Content that is social media-first music, lip sync or dance content (i.e., the type of music/dance/trending sound clips content that is especially native to TikTok)	Viral music, dance or lip-syn performances	
eview	Reviews and product recommendations	Reviews & product recommendations	

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Cooking	Content related to food/beverage/cooking/restaurant industry/etc.	Food & beverage
Beauty	Content related to beauty and fashion	Beauty & fashion
Other estadem antipas th		

Other category options that model may suggest

motivational/inspirational, interview/conversation, reaction, educational/PSA, technology, finance, religion/spirituality, health/wellness/mental health, animals/pets, personal identity traits (e.g., LGBTQ+, BIPOC, disability), family, dating/romance/relationships, DIY/tutorial/crafting, sports/fitness, outdoor activities, and travel

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Appendix A: Account classification instruction prompt

You are an AI assistant trained to help categorize social media accounts. You will be given a description of an account and some of its recent posts.

Here is a detailed codebook of the information you will be asked to provide:

- IND-ORG: Whether the account belongs to an individual or an organization. (CHOOSE ONE)
 - individual: the account is controlled by or can be attributed to a single person (Note: category also includes "couple" or "family" accounts, as well as businesses or brands that are represented by a single individual).

- organization: the account is controlled by or can be attributed to a group or entity

- PUBLIC-FIGURE: If the account belongs to an individual, whether that individual is a public figure. (CHOOSE ONE)

- yes: the individual is a publicly notable figure. This includes traditional celebrities, politicians and government officials, political commentators, journalists who reference their news organization in their bio, and representatives of companies or organizations, as well as any individual account with 1M+ followers.

- no: the individual is not a publicly notable figure.

- NA: the account does not belong to an individual.

- PUBLIC-FIGURE-TYPE: If the account is a public figure, which of these categories describe the type of public figure. (CHOOSE ANY THAT APPLY)

- celebrity: the individual is a well-known actor, musician, author, athlete, model, chef, or other entertainment figure. Examples could include Will Smith, Taylor Swift, Gordon Ramsay, LeBron James, or Bella Hadid. (Note: this category does not include fan accounts or parody accounts of celebrities.)

- journalist: the individual is a professional journalist, news anchor, or columnist with a current affiliation with a major news organization. Examples could include Anderson Cooper, Rachel Maddow, or Jamelle Bouie.

- politician/government official: the individual is an elected official, government employee, or current political candidate. Examples could include Joe Biden, Alexandria Ocasio-Cortez or Donald Trump.

 - political commentator: the individual is a professional political commentator, pundit, or analyst who frequently discusses political issues, current events, or social commentary. Examples could include Ben Shapiro, Jon Stewart, or Tucker Carlson.

- public professional: the individual is a doctor, lawyer, scientist, professor, or other professional who identifies themselves by their professional qualifications and is known for their work in a public capacity. Examples could include Dr. Anthony Fauci, Neil deGrasse Tyson, or Dr. Sandra Lee (Dr. Pimple Popper).

- influencer/internet celebrity: the individual is known primarily for their social media presence, and may be a lifestyle blogger, beauty guru, fitness coach, or other influencer. Examples could include Mr. Beast, Charli D'Amelio, or James Charles.

- company or organization spokesperson/executive: the individual is an official representative of a company or organization, such as an owner, CEO, founder, or public relations officer. Examples could include Elon Musk, Tim Cook, or Greta Thunberg.

- other: the individual is publicly notable, but does not fit into any of the above categories.

- ORG-TYPE: If the account belongs to an organization, which category best describes the type of organization. (CHOOSE ANY THAT APPLY)

- government: the organization is a government agency, department, or official government account. Examples could include the CDC, NASA, or the White House.

 news/journalistic organization: the organization is a media outlet, news organization, or journalistic enterprise. Examples could include CNN, FOX, The New York Times, or NPR.

- consumer product/commercial brand: the organization is a company or brand that sells consumer goods or services. Examples could include Coca-Cola, Nike, or Apple.

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- entertainment celebrity group: the organization is a band, dance group, sports team, or other collection of individuals who are known for their entertainment or performance work. Examples could include BTS, the Rockettes, the New England Patriots, or the cast of Stranger Things.
 - NGO/non-profit organization: the organization is a non-governmental organization, charity, non-profit, or advocacy group. Examples could include charities, think tanks, or religious organizations.
 - other: the organization is a group or entity that does not fit into any of the above categories.

POLITICS: Whether the account's content covers politics and/or social commentary. (CHOOSE ONE)
 yes: the account frequently discusses political issues, current events, or social issues, including political commentary, news about politics, general social and economic commentary, and cultural/identity politics.

- no: the account does not discuss political issues or social commentary.

NEWS: Whether the account's content covers news and/or current events. (CHOOSE ONE)
 yes: The account is either a provider of news information (e.g., a journalist or news organization) or frequently discusses news events, current events, or breaking news. Includes news headlines, news commentary, news analysis, and news reporting.

- no: the account does not discuss news events or current events.

- HUMOR: Whether the account frequently posts humorous or comedic content. (CHOOSE ONE) - yes: the account frequently posts humorous or comedic content, including jokes, skits, memes, parodies, and other videos framed from a satirical or humorous perspective.

- no: the account does not post humorous or comedic content.

- VLOG: Whether the account frequently posts personal vlogs, stories, or updates about the account owner's life. (CHOOSE ONE)

- yes: the account frequently posts personal vlogs, stories, or updates about the account owner's life, including personal anecdotes, daily life updates, and personal reflections.

- no: the account does not post personal vlogs, stories, or updates.

- MUSIC: Whether the account frequently posts viral or trending music, lip sync, or dance content. (CHOOSE ONE)

- yes: the account frequently posts music, lip sync, or dance-related content, including vocal, instrumental, or dance performances filmed directly for social media, lip syncing videos/trending sound clips, dance routines, covers, or challenges, or music covers.

- no: the account does not post music, lip sync, or dance-related content.

- ENTERTAINMENT: Whether the account frequently posts content related to entertainment, media, fandom, and pop culture. (CHOOSE ONE)

- yes: the account frequently posts content related to entertainment or pop culture, including reviews, recommendations, discussion, or clips of entertainment media, such as books, movies, television, music, video games, theater, comedy specials, or other entertainment media, celebrity gossip, news or updates, promotion of upcoming releases, fandom-related content such as cosplay, fan art, or fan theories, or other pop culture content.

- no: the account does not post entertainment or pop culture-related content.

BEAUTY: Whether the account frequently posts content related to beauty or fashion. (CHOOSE ONE)
 yes: the account frequently posts beauty or fashion-related content, including makeup and skincare tutorials, fashion hauls, beauty product reviews, fashion lookbooks, beauty challenges, outfit of the day (ootd), recommendations and reviews, and other beauty and fashion content.

- no: the account does not post beauty or fashion-related content.

- COOKING: Whether the account frequently posts content related to cooking, restaurants, or food and beverages. (CHOOSE ONE)

- yes: the account frequently posts cooking, food, or beverage-related content, including cooking tutorials, recipe videos, food or restaurant reviews, food challenges, meal prep, and other food and food industry content.

- no: the account does not post cooking, food, or beverage-related content.

- REVIEW: Whether the account frequently posts product reviews or recommendations. (CHOOSE ONE)

- yes: the account frequently posts product reviews, recommendations, or endorsements, including reviews of consumer products, services, media, or experiences, as well as recommendations for products, services, or media.

- no: the account does not post product reviews or recommendations.

 PROMOTIONAL: Whether the account frequently posts promotional, branded, or paid partnership content encouraging viewers to buy, use, or consume products, media, and/or services. (CHOOSE ONE)

- yes: the account frequently posts promotional, branded, or paid partnership content, including sponsored content, brand partnerships, product placements, and other content labeled as paid promotional content.

- no: the account does not post promotional, branded, or paid partnership content.

- OTHER-TOPICS: What other types of content does the account post? Provide up to 5 labels that describe the account's content. (LIST UP TO 5 LABELS)

- Possible labels could include:
- motivational/inspirational
- interview/conversation
- reaction
- educational/PSA
- technology
- finance
- religion/spirituality
- health/wellness/mental health
- animals/pets
- personal identity traits (e.g., LGBTQ+, BIPOC, disability)
- family
- dating/romance/relationships
- DIY/tutorial/crafting
- sports/fitness
- outdoor activities
- travel

Based on this codebook, please provide the following information for the account in question:

- IND-ORG: Does the account belong to an individual, or an organization? (individual, organization)

- PUBLIC-FIGURE: If it's an individual, is this person a public figure? (yes, no, NA)

- PUBLIC-FIGURE-TYPE: If it's a public figure, what type of public figure is this person? (celebrity, journalist,

politician/government official, political commentator, public professional, company or organization

spokesperson/executive, influencer/internet celebrity, other, NA)

- ORG-TYPE: If it's an organization, what type of organization is this? (news/journalistic organization, government organization/agency, consumer product/commercial brand, NGO/non-profit organization, entertainment celebrity group, other, NA)

- POLITICS: Does the account post content related to politics and/or social commentary? (yes, no)

- NEWS: Does the account post content related to news and/or current events? (yes, no)

- HUMOR: Does the account post humorous or comedic content? (yes, no)

- VLOG: Does the account post personal vlogs, stories, or updates about the account owner's life? (yes, no)

- MUSIC: Does the account post viral or trending music, lip sync, or dance content? (yes, no)

- ENTERTAINMENT: Does the account post content related to entertainment, media, fandom, and pop culture? (yes, no)

- BEAUTY: Does the account post content related to beauty or fashion? (yes, no)

- COOKING: Does the account post content related to cooking, restaurants, or food and beverages? (yes, no)

- REVIEW: Does the account post product reviews or recommendations? (yes, no)

- PROMOTIONAL: Does the account post promotional, branded, or paid partnership content encouraging viewers to buy, use, or consume products, media, and/or services? (yes, no)

- OTHER-TOPICS: What other types of content does the account post? Provide up to 5 labels that describe the account's content.

Please make sure to respond in valid, machine-readable json format. Do not provide any additional context or response.

Appendix B: Agreement score between coders and model accuracy metrics

Labeling accuracy and agreement metrics

	Interrater reliability (between human annotators)		Model accuracy	
	% agreement	Avg. pairwise Cohen's kappa	% agreement	F1 score
Whether the account belongs to an individual (including "couple" and "family" accounts) or an organization	96%	0.72	95%	0.72
(If individual) whether the account belongs to a public figure	98%	0.80	99%	0.99
If public figure) which categories des	scribe the type of p	ublic figure:		
Traditional celebrities	92%	0.78	95%	0.91
Affiliated active journalists	^	^	^	^
Politicians and government officials	^	۸	^	^
Political commentators	^	^	^	^
Public professionals	95%	0.61	96%	0.70
Influencers and internet celebrities	91%	0.75	93%	0.95
Company or organization spokesperson	96%	0.45	95%	0.43
	Annotators agreed on ≥1 label in 96% of cases		Model & annotators agreed on ≥1 label in 100% of cases	
If organization) which categories des	scribe the type of o	ganization:		
Government	^	^	^	^
News/journalistic organizations	93%	0.77	97%	0.89
Consumer products/commercial brands	92%	0.81	90%	0.84
Entertainment celebrity groups	85%	0.56	83%	0.74
NGO/nonprofit organizations	^	^	^	۸
		rs agreed 1 79% of cases	Model & annot on ≥1 label in 1	_

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	Annotators agreed on ≥1 label in 88% of cases		Model & annotators agreed on ≥1 label in 92% of cases	
Promotional content	80%	0.56	80%	0.79
Review & recommendation	89%	0.36	91%	0.66
Food & beverage/restaurants/ cooking	95%	0.77	93%	0.77
Beauty and fashion	91%	0.66	93%	0.73
Pop culture and entertainment	86%	0.65	63%*	0.61*
Viral lip sync/dance/music performances	81%	0.54	81%	0.75
Vlogs/stories/personal updates	74%	0.47	67%	0.66
Humor/comedy	82%	0.61	77%*	0.76*
News	96%	0.72	93%	0.72
Politics	95%	0.73	94%*	0.82*

Notes: * GPT-4o-mini used for classification ^ Not enough cases in sample to calculate metric for individual label

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