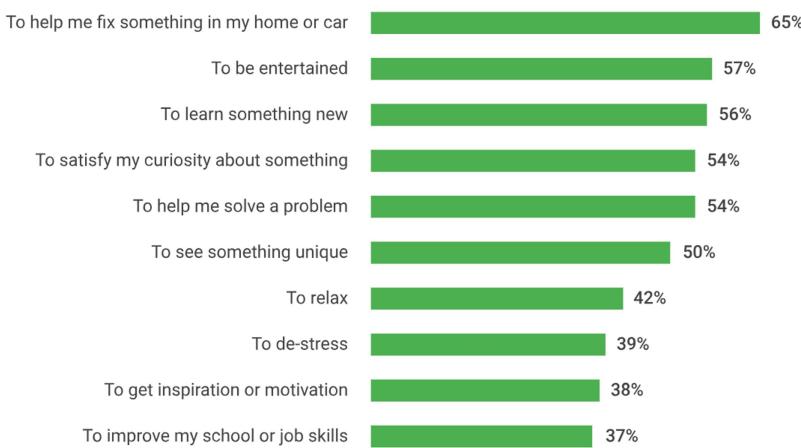


YouTube Simulation Planning

Friday, June 16, 2023 4:01 PM

Agent Archetypes

Why people turn to YouTube



2and2/Google, "The Values of YouTube" Study, (n of 1,006 consumers between the ages of 18–54, with 918 monthly YouTube users), respondents were asked to choose which platforms they turn to for a range of needs, Oct. 2017.

Do we want to make a simulation for YouTube watchers generally? Or just those watching political videos?

Changes in Party Identification and Leaning, by Quarter, 2021

In politics, as of today, do you consider yourself -- [a Republican, a Democrat] -- or an independent? // As of today, do you lean more to the -- [Democratic Party or the Republican Party]?

	2021-I %	2021-II %	2021-III %	2021-IV %
Democrat	30	31	28	28
Democratic-leaning independent	19	18	17	14
Non-leaning independent	10	5	8	9
Republican-leaning independent	15	17	16	19
Republican	25	26	28	28

Percentage with no opinion not shown

GALLUP

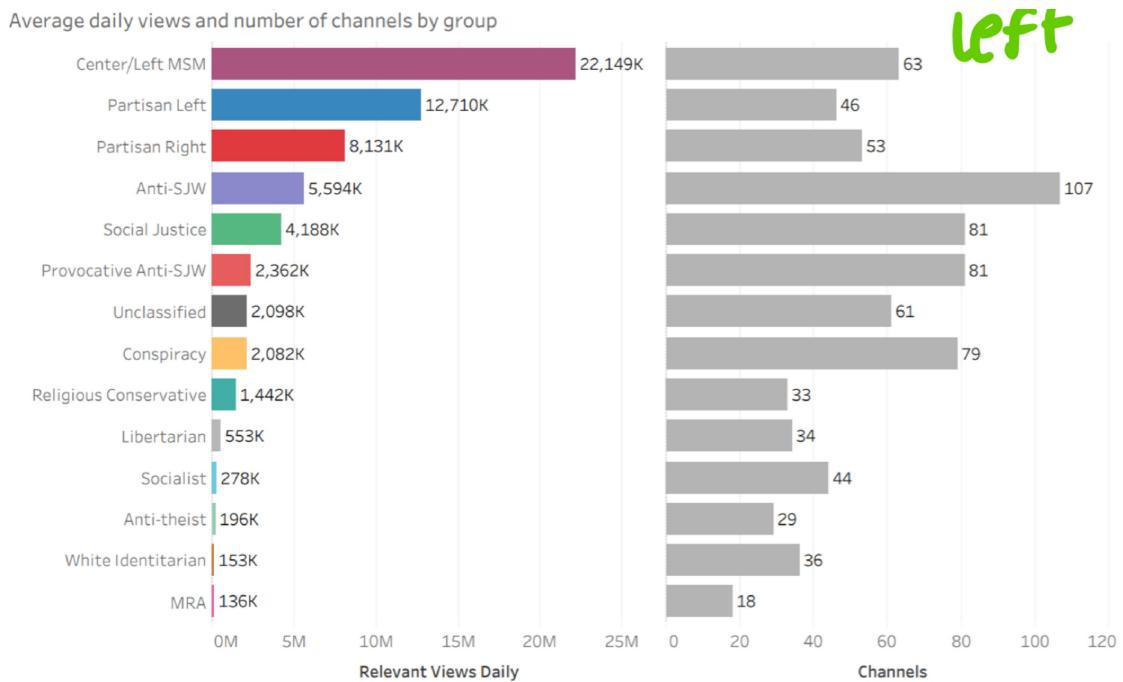
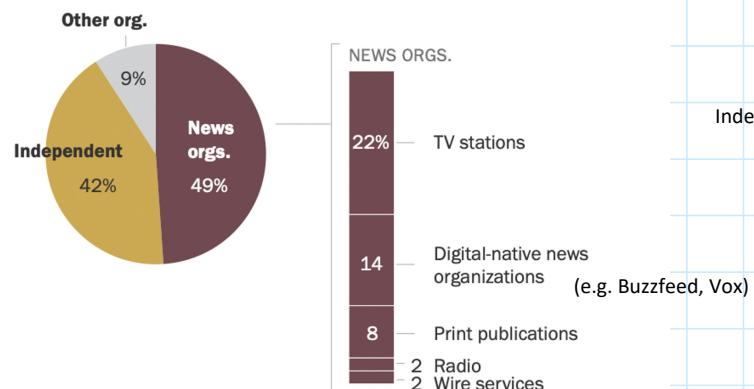


Fig. 2. Daily Views and Number of Channels

(from Algorithmic Extremism YouTube paper)

News on YouTube comes from a mix of established news organizations and independent channels

% of popular YouTube news channels that have each affiliation type



Independent = no affiliation with external entity

Note: Popular YouTube news channels are those news channels that had at least 100,000 subscribers in November 2019. "Other organization" channels are those affiliated with an external organization that was not a news organization, including government agencies, research organizations, and advocacy organizations. "Independent" channels do not have a clear external affiliation.

Source: Pew Research Center analysis of 377 YouTube news channels with at least 100,000 subscribers in November 2019.

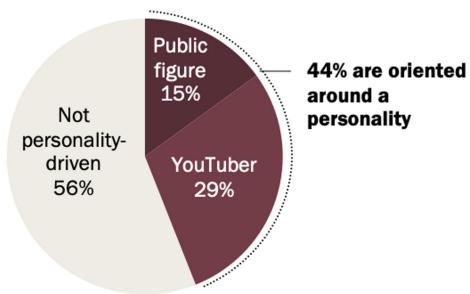
"Many Americans Get News on YouTube, Where News Organizations and Independent Producers Thrive Side by Side"

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These different types of channels seem to adopt different strategies in what kinds of videos they publish and how often they do so. The typical (median) news organization channel produced 33 videos in December 2019, with a median video length of about five minutes. These were often – especially for television outlets – short segments about a specific topic, repackaged from another source. In contrast, the typical independent channel produced far fewer (12) videos, but they were typically much longer, with a median video length of over 12 minutes.

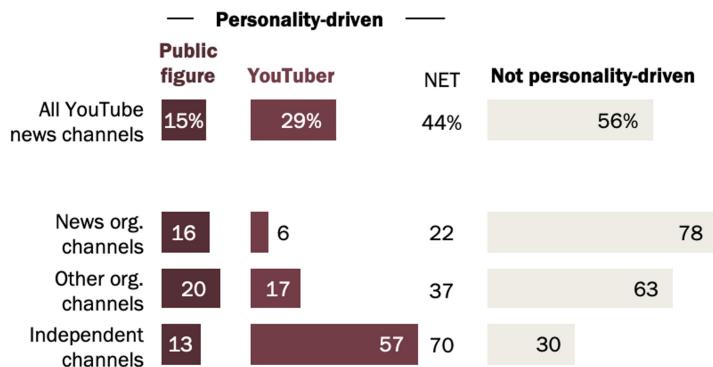
More than four-in-ten popular YouTube news channels are oriented around a specific personality ...

% of popular YouTube news channels that are oriented around a ...



... with independent channels especially likely to use this model

% of popular YouTube news channels in each affiliation type that are oriented around a ...



Note: Popular YouTube news channels are those news channels that had at least 100,000 subscribers in November 2019. "Other organization" channels are those affiliated with an external organization that is not a news organization, including government agencies, research organizations and advocacy organizations. "Independent" channels do not have a clear external affiliation.

Source: Pew Research Center analysis of 377 YouTube news channels with at least 100,000 subscribers in November 2019.

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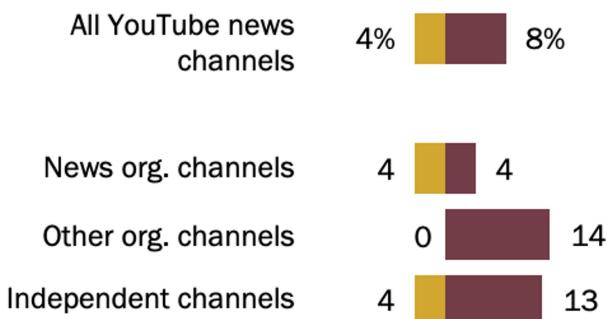
An overwhelming majority of YouTube news channels do not describe themselves in ideological terms

% of popular YouTube news channels that indicated they are ___ in their description or title



12% of YouTube news channels describe their ideology on their channel page

Left-leaning Right-leaning



Note: Ideological lean was determined by an examination of the channel's title, description and about page. Only channels that explicitly state they are left-leaning (liberal, progressive or Democratic) or right-leaning (conservative, Republican or pro-Trump) are included in each respective ideology. Popular YouTube news channels are those news channels that had at least 100,000 subscribers in November 2019. "Other organization" channels are those affiliated with an external organization that is not a news organization, including government agencies, research organizations, and advocacy organizations. "Independent" channels do not have a clear external affiliation.

Source: Pew Research Center analysis of 377 YouTube news channels with at least 100,000 subscribers in November 2019.

"Many Americans Get News on YouTube, Where News Organizations and Independent Producers Thrive Side by Side"

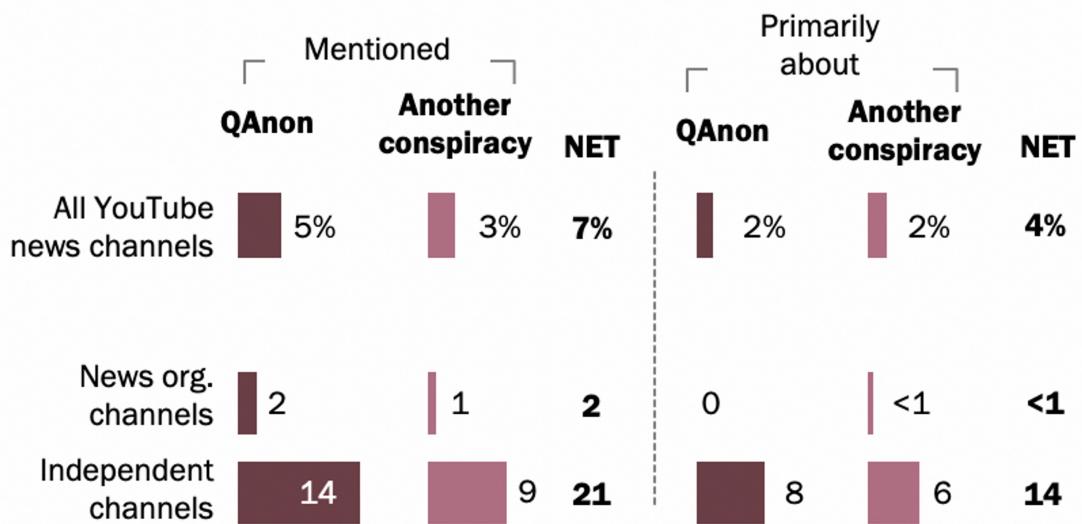
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Channels owned by news organizations are the least likely to express an ideological orientation – just 8% of these channels do so, split evenly between those that lean left and right. By contrast, nearly one-in-five independent channels (17%) express a clear partisan lean, with 13% indicating they lean right and 4% leaning left.

From <<https://www.pewresearch.org/journalism/2020/09/28/a-closer-look-at-the-channels-producing-news-on-youtube-and-the-videos-themselves/>>

Independent channels covered QAnon conspiracy theories much more frequently than news organizations did

% of videos from the 100 most viewed YouTube news channels from December 2019 that mentioned or primarily were about ...



Note: Most viewed YouTube news channels are those news channels with the highest number of median views on their videos from December 2019. Videos may mention more than one conspiracy, but can only be primarily about one topic. Channels affiliated with other organizations (aside from news organizations) produced just 2% of videos, which was not enough to analyze separately.

Source: Pew Research Center analysis of 2,967 videos published in December 2019 by the 100 most viewed YouTube news channels.

"Many Americans Get News on YouTube, Where News Organizations and Independent Producers Thrive Side by Side"

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<https://towardsdatascience.com/agent-based-model-visualization-cb5648db51f4>

```
activity.py
Activities a user can take on a video
click()
thumbs_up()
thumbs_down()
watch()
```

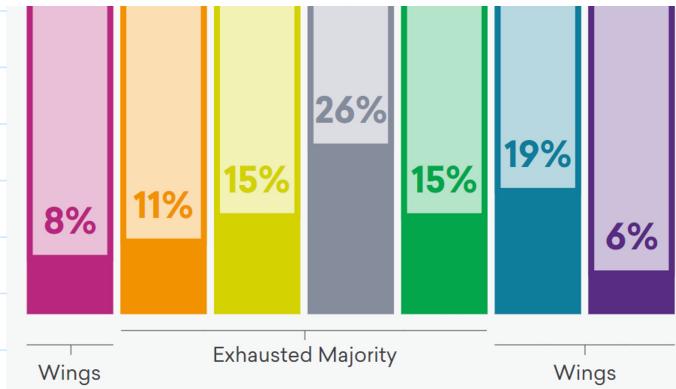
```
agent.py
Attributes describing an agent
```



agent.py
<i>Attributes describing an agent</i>
agent_id: int
current_state: string?
log: array?
random_seed: int

video.py
<i>Attributes describing a video</i>
views: int (<i>minutes</i>)
vid_id: int
length: int (<i>minutes</i>)
category: string
thumbs_up: int
suggestion_relation(vid_id): boolean

behavior_reference.py
<i>Parameters describing behavior of agent archetypes</i>
longest_vid_threshold: int (<i>minutes</i>)
yt_time_threshold: int (<i>minutes</i>)
political_affiliation: string
video_extremity: double (<i>0 to 1</i>)
popularity_threshold: int (<i>views</i>)
prefers_algorithm: boolean



<https://hiddentrebes.us/>