Is Luigi Mangione a hero?

Analyzing YouTube Video Formats and Audience Comments on 'Luigi Mangione'

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Links

Luigi Mangione

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Summary of Key Findings

The focus of the research was on YouTube video trends and comments on the issue space of Luigi Mangione. News videos with their purpose of new information dissemination rose during the key dates of the event, while Non-News videos underwent relatively steady trends. Initially, anti-Luigi continents dominated the issue space but over time balanced stances were apparent among uploaded videos that represent the change in public sentiment. Overall comments were dominantly supportive towards Luigi regardless of video formats. There were diverse narratives discussed in the comment section from supporting of healthcare reform to framing of Luigi as an extremist.

1. Introduction

On December 4, 2024, Brian Thompson, the CEO of UnitedHealthcare, was fatally shot by a 26-year-old American man, Luigi Nicolas Mangione. UnitedHealthcare, an American insurance company, has been criticized on a number of occasions for the way it handles claims (Kliff & Abelson, 2024). This premeditated assassination was motivated by Mangione's desire to critique the U.S. healthcare system. In the wake of this shocking event, Mangione's actions sparked significant public discourse on social media platforms. Public reaction to the allegations has been polarised, with some expressing sympathy for Mangione and others unequivocally condemning his alleged actions (Chohan, 2025). Some individuals began to portray him as a folk hero, reflecting broader societal frustrations with the American insurance industry.

As discussions about Mangione's actions proliferated online, YouTube emerged as a central platform for shaping and negotiating public opinion on the issue. Videos on YouTube addressing the issue appeared across a range of formats, taking the form of TV formats like News or Non-News formats, such as podcasts, interviews, and talk shows. Various video formats, like journalistic objectivity, personal stories, and opinionated commentary, can cut through the issue from different angles. In addition to widening the scope of discussion, this diversity of formats also influenced how audiences engaged with these videos. YouTube comments serve as a participatory space where users engage in dialogue and contribute to community dynamics, reflecting trends in posting behavior and stance-taking over time (Boyd, 2014). Audiences post comments such as Mangione's theory of innocence and the flaws in the U.S. healthcare system. These comments often reflect deep ideological divisions regarding whether the audience is on the same stance as the video. Videos sympathetic to Mangione tend to attract comments from supporters, while audiences who take a different stance from the video question its narrative. The stance-taking of videos shifted over time as new information emerged, and audience reactions often mirrored these changes.

Therefore, the purpose of this research is to examine how Luigi Mangione's topic sphere is narrated and framed in the YouTube issue space. We aim to study the issue space by mapping and identifying the various sets of video formats on the controversial topic of the murder case by Luigi Mangione to identify what kinds of actors play significant roles in the discussion. To do this, we first classify YouTube videos into News and Non-News videos and observe their uploading trends. Furthermore, we analyze the stances of both video formats on the Luigi Mangione issue. Moreover, this paper pays attention to the differences in audience reactions

across different video forms about the issue in two ways. On the one hand, we inquire whether the comments align with or diverge from the videos' stances. On the other hand, we identify the main narratives/discourses in the comment section regarding the aforementioned issue.

2. Initial Data Sets

Luigi Mangione

- Initial DATASET by Rieder: 3 datasets extracted by Rieder ranked by date, relevance, and view count respectively.
- Processed Dataset: Dataset ranked by date, and filtered based on comment count, categorized by video formats, with transcripts of selected videos.
- Comment Stances of 6 videos: top 100 most liked comments from 6 chosen videos, with their general stance ranking, positions, and explanation offered by Prompt Compass.
- 4. Poster: a visual representation of findings that answer RQ1~RQ3.

3. Research Questions

- 1. What is the posting trend of News and Non-News YouTube videos about Luigi Mangione?
- 2. How does the stance-taking of these videos change over time?
- 3. Do comments align with or diverge from the video's stance-taking?
- 4. What are the main narratives in the comment section?

4. Methodology

The research questions are inspired by Rogers's (2018) discussion of the concept of issue space, where he mentions five factors that comprise issue space: concern, dominant voice, commitment, positioning, and alignment. Firstly, concern refers to the most impactful sources within the issue space (Rogers, 2018, p. 456), which can be sorted out by frequency hierarchy (Rogers, 2024, p. 163). In this context, the main focus is the audience's engagement with the issue, so we measure concern in the dataset by filtering videos with the most comment count. Hence, we selected the 300 most commented English videos from 6,363 YouTube videos extracted through the Video List Module on YouTube Data Tools (YTDT) (Rieder, 2015) on 6 January 2025. These videos were ranked by date and retrieved by querying the term "Luigi Mangione."

Secondly, as YouTube videos are created in different formats, we manually classified the selected videos into different formats. García-Avilés and de Lara (2018, p.20) state that "Online video is characterised by its diversity of formats and also by a growing hybridisation of genres. For this reason, it is difficult to establish a typology that systematises the wide diversity that exists." Indeed some of the YouTube videos we manually inspected, could not be classified on a concrete basis as they were either combinations of transformations of different forms. Therefore, we divided "Luigi Mangione" videos into two audiovisual formats: News (a traditional TV-based News form) and Non-News (all other forms). To analyze YouTube-native content further, we divided the Non-News category into six subtypes based on their content and format: interview, podcast, narrative, commentary, talk show, and

comedy. To compare the upload frequency of each video format, we can identify the dominant voice shaping the issue (Rogers, 2018, p. 456) over time. As Rogers (2018, p. 456) states, commitment analysis examines the persistence of different actors' engagement, exploring whether they address an issue merely to follow trends or out of genuine and consistent concern. We can gain insights into how these formats as actors, demonstrate their concern for the issue by comparing their upload frequency across time. Two line graphs will be presented to address RQ1.

Thirdly, a beeswarm plot visualized the positions and alignment of News and Non-News videos throughout the timeline, aiming to answer RQ2. According to Rogers (2018, p. 456), positioning is evaluated by using terms to express an actor's concern, which can either push the agenda forward or exclude them from the discussion. Alignment analyzes who uses the same issue language to share similar positions (Rogers, 2018, p. 456). Ziems et al. (2024, p. 246) introduce stance detection as a task design for the utilization of large language models (LLMs). From their evaluation metric results, it is evident that ChatGPT is reasonably accurate with a score of 76.0% in detecting stances of a given text (Ziems et al., 2024, p. 258). Accordingly, in our case, we attempt to evaluate each video's stance toward Luigi by using ChatGPT from Prompt Compass (Borra & Plique, 2024). First, we used the YTDT Transcript Scraper (Rieder, 2015) to extract transcripts from the 300 most-commented videos. We then filtered out videos with empty transcripts, leaving us with 259 valid videos. After, we employed Prompt Compass (Borra & Plique, 2024) to analyze and identify the stance expressed in each video. Here is the prompt used to generate videos' stances:

System prompt: You are an advanced interpreting AI helping researchers study social media data. You know a lot about Luigi Mangione News. You are tasked by the researchers with extracting narratives from the comments of YouTube videos on Luigi Mangione News.

Prompt: On a scale from -5 to 5, -5=Anti-Luigi, 0=Neutral, 5=Pro-Luigi, how positive is the whole comment section on the role of Luigi, and briefly explain why

Your answer must be lowercase. Provide it in [stance score, narrative stance, "your explanation"] format

Eventually, we generated a beeswarm plot to illustrate the trends of stance-taking in News and Non-News videos over time, with the size of each dot indicating the comment count, thereby addressing RQ2.

Fourthly, we chose the three most-commented videos with stance scores of -5, 0, and 5 from each of the two video formats, yielding six videos that take extreme stances with the highest levels of commentator engagement. Applying YTDT, we extracted the top 20 comments from each video and filtered 100 comments for each video by like count. We copied comment texts and asked ChatGPT (OpenAI, 2023) to generate an overall stance and narratives of 6 comment sections respectively. Here is the prompt used to generate commentators' stances:

You are an advanced interpreting AI helping researchers study social media data. You are tasked to analyze the comment section of videos discussing the killing of United Healthcare CEO Brian Thompson by Luigi Mangione. Users in the comment section are discussing whether this killing was justified or not. You are tasked by the researchers with extracting narratives from the comments of YouTube videos to better understand whether the users sympathize with Luigi.

Prompt: On a scale from -5 to 5, -5=Anti-Luigi, 0=Neutral, 5=Pro-Luigi, how positive is the whole comment section on the role of Luigi, and briefly explain why

Your answer must be lowercase. Provide it in [stance score, narrative stance, "your explanation"] format

We created a matrix plot to visualize the different stances taken by comment sections in News and Non-News videos. It highlights three distinct stances—positive, neutral, and negative—across these two categories of videos. This allows us to compare how each stance is distributed within the comment sections of News-related content versus Non-News content, which answers RQ4.

Finally, we generated word clouds using WordItOut (2025) for each comment section by selecting words with a minimum frequency of 3 and including the top 20 words for each

cloud. This approach allowed us to map the main narratives within the comment sections, addressing RQ4.

5. Findings

The Posting Trend of Various Video Formats

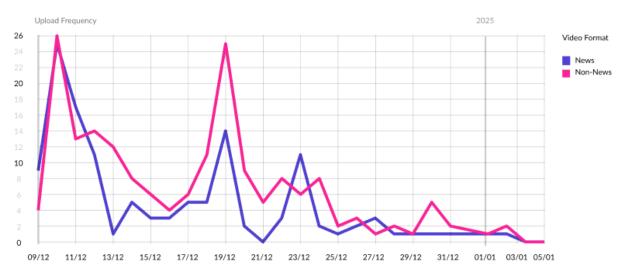


Figure 1

Line graph: The trend of News and Non-News video uploads.

Figure 1 depicts how the number of News videos and Non-News videos about 'Luigi Mangione' posted on YouTube changes over time. By distinguishing the upload frequency of each actor, it is possible to detect the presence of a dominant voice in the discussion of the incident and identify where the dominant voice comes from.

Initially, News videos dominated the issue space, and the 3 peaks of News video uploads closely align with the three key dates:

- 9 December Luigi got arrested (Sayer, 2024)
- 19 December Luigi's first appearance in the court (Katersky, Shapiro & Nalty, 2024)
- 23 December Luigi pleaded not guilty (Debusmann, 2024).

News videos dramatically decreased after the 23rd, probably because there was no new progress to be delivered to the masses. It illustrates that the News videos always work for reporting the murder itself, and seldom extend discussions, which shows the characteristics of timeliness and focus of the format.

Non-News videos caught up within three days and remained dominant from 12 to 22 December. Two prominent peaks were observed on 10 December and 19 December, corresponding to critical turning points in the incident that garnered increased public attention. An interesting observation is that the number of Non-News videos shows less fluctuation compared to the News videos. A notable gap is evident on December 19, when these videos jump into the extended discussions that usually revolve around Luigi personally and the health insurance system, probably people praising and supporting Luigi and his appearance through them. Furthermore, it is evident that after December 19, the number of Non-News videos declined gradually, indicating that the Non-News channels paying progressively less attention to this murder as they had to switch their focus to other trendy topics to attract audiences.

Overall, the number of Non-News videos is much greater than News videos, showing that people pay more attention to the extra information that surrounds the issue of murder, instead

of the murder itself. However, News videos are more persistent in discourse construction than their counterpart. Non-News videos are mostly created by independent commercial companies or individuals, and there is not as strong a sense of responsibility and motivation to keep track of events. However, the rapid rebound of Non-News videos in the early stage reflects to some extent that the monopoly of News media on information dissemination is nowadays threatened, and more and more actors representing the interests of different groups are involved in the discussion of events.

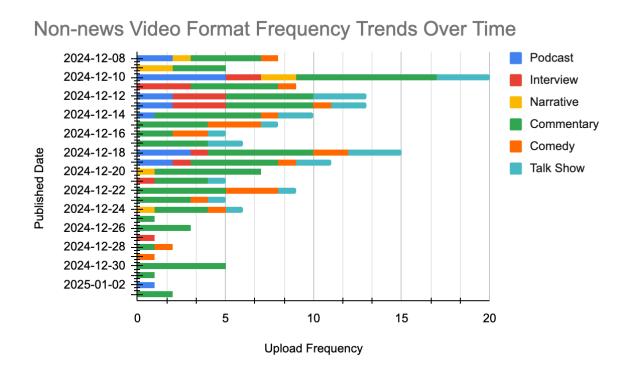


Figure 2

Bar graph: Non-News video format frequency trends over time.

The number of Non-News videos posted peaked on 10 December and has been on a fluctuating downward trend ever since. The number of different types of videos is not even, with Commentary videos always accounting for a large proportion of the total and covering

almost the whole period, which can be reckoned as the dominant type of Non-News videos. Interviews, Comedy, Talk Shows, and podcasts, on the other hand, are trending well in the early part of the period, but are unstable from the middle of the period onwards, and are largely absent in the later part of the period. This reflects the fact that Non-News videos pay attention to the event by commenting and discussing it, which is an individual opinion output. On the other hand, the types of videos that require complex post-production and higher production costs are relatively few, reflecting to some extent the limitations of Non-News videos.

The Changes in Stance-taking of Videos Over Time

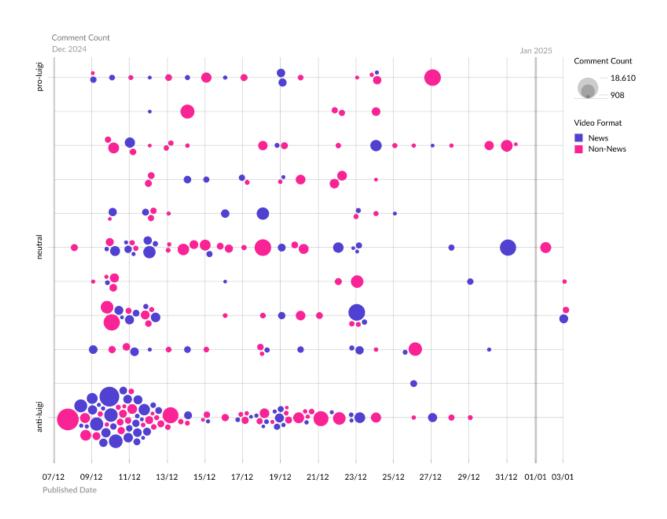


Figure 3

Beeswarm plot: Stance-taking of News and Non-News videos over time.

The beeswarm chart reveals differences in the distribution of YouTube video content on Luigi. First, it is clear that the number of videos against Luigi significantly exceeds the number of videos in support of Luigi, especially between December 7 and December 23, when anti-Luigi videos appear very densely and occupy the lower half of the chart. After December 23, the distribution of positions became more balanced, with an increasing number of neutral and pro-Luigi videos. Interestingly, News videos are more likely to take an anti-Luigi stance, while Non-News videos show a more evenly distributed range of positions. Despite this, anti-Luigi videos consistently attract more people to participate in the discussion, as shown by the size of the bubbles representing comments, highlighting the ability of this stance to spark significant controversy. Counterintuitively, pro-Luigi videos are not as numerous, which means that YouTube may have deleted reports of related support content, indicating that platform moderation or algorithmic factors may have an impact on this uneven distribution. At the same time, this deletion may distort people's expressed emotions, further amplifying the anti-Luigi narrative.

The clear initial dominance of anti-Luigi videos suggests a wave of concentrated negative sentiment early in the timeline, perhaps due to heightened attention or the emergence of opposing views. The shift to a more balanced stance after December 23 suggests that anti-Luigi content has become saturated or that new alternative views have not yet emerged. The differences between News and Non-News videos further highlight the role of video type in shaping public discourse—Non-News is more likely to drive polarized discussions due to

its highly subjective views, while News videos tend to take a more critical stance due to their more neutral views and tendency to narrate facts. In addition, the larger comment bubbles on anti-Luigi videos highlight the stronger public engagement with these narratives, raising questions about the interplay between content visibility and audience engagement. The removal of pro-Luigi videos complicates the narrative, suggesting that potential platform moderation may suppress supportive content, thereby distorting apparent public sentiment. The uneven distribution of stances, especially the dominance of anti-Luigi videos early in the timeline, highlights the influence of visibility, platform moderation, and audience engagement in shaping digital discourse.

The Relationship Between Stances of Video Formats and Comments

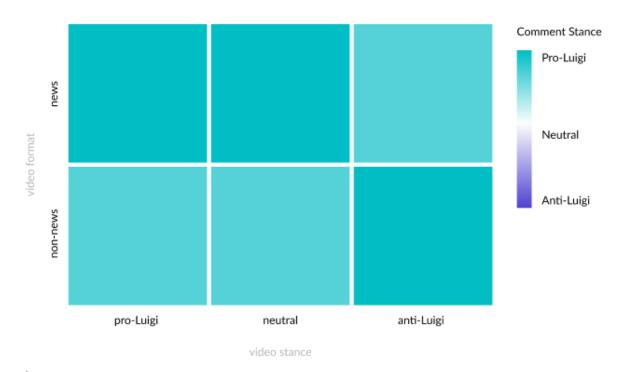


Figure 4

Matrix plot: Stance-taking in comments of News and Non-News videos.

The matrix plot shows the comparison between the stance of the videos and the stance of their comments. Obviously, the predominance of blue across the grid suggests that the comments skew pro-Luigi, regardless of the stance or format of the videos. This indicates a broader trend of audience support for Luigi in the YouTube discourse, which could stem from public sentiment.

The evaluation of the relationship between stances of video formats and their comments reveals a contrasting pattern. When we inspect pro-Luigi videos, comments on News videos tend to be more supportive of Luigi compared to those on Non-News videos. In the same way, when analyzing anti-Luigi videos, comments on News videos exhibit less support for Luigi than those on Non-News videos. This suggests that the alignment between the stance of comments and News videos is stronger than that observed with Non-News videos. It highlights the greater opinion-leading influence of News videos compared to Non-News content.

Compared to the stance of comments on Non-News videos, the comments on News videos are relatively more supportive of Luigi. In the context of the known generally favorable attitude of society at large towards Luigi, this partly reflects a relatively higher willingness to post comments reflecting personal opinions underneath the News video than Non-News video. It is worth noting that the comments on the anti-Luigi Non-News videos exhibit a stance that diverges significantly from the video's position. Most comments complain about the insurance system, criticizing it as unequal and unfair to individuals. Moreover, this negative reaction extends to deeper class issues, with commentators utilizing the situation to express their exasperation and disgust at capitalist exploitation.

The Main Narratives in the Comment Section



Figure 5

Word cloud for comments of News with pro-Luigi stance.

Supportive News content about Luigi Mangione is replete with confirmatory words like "Luigi," "healthcare," "insurance," and "people," among other confirmatory words, suggesting his active positioning in the healthcare field. The presence of words such as "love," "free," and "care" in the text suggests a plea for available medical action and for people to show compassion. The positive naming of things such as "profit" and the simultaneous presentation of words such as "murder" as positive terms suggest a positive contribution by Luigi and the use of critical language about negative practices in the industry. The public response is likely to be mostly filled with gratitude and honor, pointing to the need for broader reforms driven by Luigi's great accomplishments. All of these points can be amplified through journalistic content in the affirmation of public opinion, which sees Luigi as the creator of subsequent healthcare reforms.



Figure 6

Word cloud for comments of News with neutral stance.

The word cloud stands for remarks that are neutral in respect to News and are addressed to Luigi Mangione. Words and phrases such as "people", "prison", "healthcare", and "system" bear out focus on a broader range of social issues rather than intense criticism or backing of the enterprise. The words "insurance", "jury", and "justiceiscoming" show the same situation of both healthcare and legal services without siding with one view more than the other. "CEO" and "MONSTAMILKCEO" are the terms that indicate the factual affordance to mention the role of Luigi by the audience without giving away any judgment. In general, the whole point of view is rather impartial, concentrating on the social-political aspects of the topic without pointing the finger at Luigi directly. This format likely presents Luigi within a broader societal or political context without expressing clear bias, offering viewers a balanced perspective. The audience response to this type of content is often analytical,

engaging with the presented facts rather than reacting emotionally. Neutral videos serve as a foundation for viewers to form their own opinions, fostering discussions grounded in evidence rather than sentiment.



Figure 7

Word cloud for comments of News with anti-Luigi stance.

Criticism against Luigi Mangione was severe, with emotionally charged language like "disturbing," "painful," "enemy," and "killed ", among other emotionally charged terms used to criticize his actions and character. This inflammatory rhetoric highlights Mangione as the perpetrator of the extreme act of violence that killed the health insurance company's CEO. The story goes from telling a tale about the failing of the system to condemnation of Luigi's personal responsibility, an unsafe man compelled by his anger and resentment rather than a reformer with a will for justice. Recurrent references to "cancer" and "treatment" point toward resentment because of medical failures, but murderous acting belies legitimate

criticism. Frequent use of such terms as "media," "rules," and "CEO" suggests a broad critique of corporate greed and exploitation, but the behavior of Luigi places him, if anything, utterly outside this critique, making him an actor of violence rather than any form of real change. The general public generally thought of him as a criminal who could not justify his behavior whatsoever. This view was further engrained by the authoritative News reports portraying the criticism as fact-based and justified, fixing in the public's mind the image of Mangione as a dangerous man who needed to be held legally and morally accountable for his violent behavior.



Figure 8

Word cloud for comments of Non-News with pro-Luigi stance.

This word cloud shows News comments that support Luigi Mangione. The presence of middle words such as "people", "care", "health", and "better" indicates the supportive attitude that identifies Luigi with improvement in healthcare. Other words, like "right", "need", and

"free", indicate an endorsement by the people of accessible health care and changes in the system. Positive descriptors, such as "love" and "better", indicate adoration; "Billions" and "profit" might connote favor of wealth redistribution or business success. This story of Luigi pits him as an agent toward change in a positive direction and is very well-received by his followers.

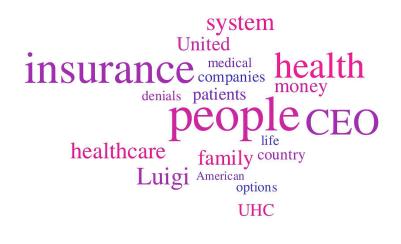


Figure 9

Word cloud for comments of Non-News with neutral stance.

Neutral commentary on healthcare systems and corporate dynamics focuses on providing clear, fact-based analysis without expressing positive or negative bias. Terms that are most commonly used in everyday conversations include "insurance," "CEO," "company," and "patient"; these all center on the way in which the business of healthcare operates and how companies impact the industry. Other discussions on healthcare issues use such terms as

"family," "medical," and "choice," reflecting the more practical aspects of considering healthcare delivery and patient choices. The material would interest a targeted audience seeking explanation and importantly, objectivity with no polarized argumentation. Consequences are that audience responses are reasoned and fact-based, therefore fostering informative discussions rather than emotive reactions, and placing understanding above emotional responses. Such an analytic approach helps the audiences inform themselves and have meaningful conversations with regard to complex issues of healthcare and business engagement.



Figure 10

Word cloud for comments of Non-News with anti-Luigi stance.

This would frame Luigi Mangione as an extremist actor if the video shows him directly killing the chief executive officer of the health insurance company. In this shift from systemic critique to questions of morality and legitimacy of his personal actions, in this context, words

such as "system," "responsibility," "guilt," and "whining" would sound more appropriately used in analyzing Luigi's motivations rather than the mere critique of the healthcare system. He is not portrayed as any kind of symbol of the system; he is shown to have revenge on an already corrupt system in a way that was fiercely personal. The reaction of the public to such content will most likely be complex and polarized. Others may perceive his behavior as "extreme justice," with him being a victim of a corrupt healthcare system that was forced into desperation. While a significant number of other people would squarely condemn his violence, want to see him arraigned in court, and protest that such acts are never justifiable. This might easily stir in every form an emotional debate of understanding his motive or condemning the method.

In short, YouTube comments about Luigi Mangione illustrate highly polarized public opinion, made in the wake of the media's tone. Those commentators who are sympathetic to Luigi put as their main theme his commitment to national health reform. The concepts of sympathy, availableness, and improvement of a system are central to this argument. Such terms as "compassion", "health", and "better" amongst others are strong markers of admiration of his quest to bring change to the health system. These neutral reviews put neighbors into analytical talks by focusing on positively driven facts about health care and corporate dynamics. These insights thereby compel viewers to be on the lookout for forming original judgments. The incomplete or insufficient healthcare service caused the patients to suffer and die for no reason. He further says that as health care progresses, the number of errors will decrease and the services will be more effective. On the other hand, discussing the topic, anti-Luigi material highlights negative views assuming a highly unrealistic stance pulling down the hero of the film and making his valid complaints go unnoticed. Consciously,

there is no way to describe the copiousness of disrespect and contempt in these texts that explicates the public as a critic of his methods, if not legally, then ethically. This inconsistency in the public reaction proves that the issue, whether one is against, for, or indifferent to the narrative, is the crucial means of controlling people's opinions. In any case, Luigi Mangione does shine as a complicated personality, the one that happens to be revered by those who see him as a reform activist and, at the same time, the one condemned by those who view him as the one who inflicts unwarranted lethal damage. It also becomes symbolic of a larger, very complex public discourse through which flows the dominant influence of the media on societal attitude and the very critical part the actors play in either advocating reform or being blamed.

6. Discussion

The aim of the project was first to find out the dominant voices and actors in the discourse of Luigi Mangione's issue by studying the posting trend of News and Non-News YouTube videos. A dramatic increase in News video uploads during the key dates and decreases after 21 December suggested the formats' informative nature that only focuses on the issue when there is new information to be delivered to the masses. Non-News videos show a less fluctuating trend in uploads illustrating extended discussions regarding the background and contextual information on the issue. Among Non-News videos, Commentary videos were the dominant voices, while the upload frequency of other formats decreased over time. This reflects how commentary and discussion about the issue sustained itself throughout the timeline, while the other forms of videos that require high resources, such as Comedy had some limitations.

The second analysis was conducted to identify the stance-taking of these videos over time. The beeswarm plot showed that the Anti-Luigi videos were dominant in the earlier period and became more balanced as time passed. Proportionately, News videos with anti-Luigi stances were high while Non-News videos were relatively evenly distributed in terms of stances. The overall trend shift from anti-Luigi to more balanced stances shows the public sentiment towards the issue.

The third analysis was on whether comments aligned with the video's stances or not. The overall positions in comments show a pro-Luigi stance regardless of the stances and formats of the videos that explicitly represent public opinion. We found out that the alignment between the stances of comment and News videos is stronger than Non-News videos that highlight the significant influence of information from News format.

Lastly, we investigated the main narratives in the comment section. The findings showed that the comments of pro-Luigi News videos demonstrated that he is widely recognized for his influential contributions to healthcare, with public discussion emphasizing feelings of compassion, reform, and gratitude for his efforts. This shows how News content can amplify this perception by portraying Luigi as a prime mover in meaningful healthcare reform. The comments of neutrally stanced News videos as a whole focused on the socio-political aspects of the issue of Luigi and maintained a fairly unbiased view. Criticism of Luigi Mangione was intense and deeply personal, painting him as a violent and dangerous individual in the comment section of anti-Luigi News videos. His actions including the killing of a health insurance CEO, were driven by anger and resentment rather than a genuine desire for reform.

This narrative, reinforced by authoritative news reports, solidified the public perception of Mangione as a criminal whose behavior was indefensible and incompatible with any meaningful critique of systemic issues. The comments in Non-News pro-Luigi videos often indicated a supportive attitude with the hopes for changes in the healthcare system, while responses in neutral videos were fact-based and derived informative discussion rather than emotive reactions. Comparatively, audiences of anti-Luigi videos framed Luigi Mangione as an extremist actor and questioned the legitimacy of the action.

7. Conclusion

In conclusion, the research provided insight into how controversial topics like the murder case by Luigi Mangione are narrated and framed in the YouTube issue space. YouTube is a space for discussion where a range of styles and formats of videos arise. These various formats function differently depending on their aim and targeted audience. For instance, News videos may prioritize the effectiveness of their informative function over their aesthetic function (García-Avilés & de Lara, 2018, p. 17). Furthermore, YouTube is a participatory issue space where audiences engage in conversation in the comment section (Boyd, 2014). This research, therefore, sheds light on the stance-taking on the side of creators and channels with different video formats, and audience reactions. However, the causal relationship between the video formats and the audience comments was not clearly shown. Rather, it was apparent that audiences tend to take a supportive stance towards Luigi Mangione regardless of the videos they consume.

This research has inherent limitations and challenges. To begin with, we did not study the whole set of videos regarding the issue of Luigi Mangione but minimized and operationalized the dataset into analyzable size. The dataset sorted by comment count still has significance, but may fail to map the whole discursive practices. To address the gap in our research, we could analyze videos with fewer comments to explore why they have lower engagement. This might be due to YouTube's content moderation or the content being less appealing. Furthermore, there are some potential biases when using LLMs for large-scale qualitative analysis, including stance ranking and narrative conclusions across 259 videos. Additionally, the videos we extracted may have already been moderated by YouTube algorithms, which only present us with videos YouTube allows us to see. Furthermore, according to Ziems et al. (2024), "—LLMs can augment but not entirely replace the traditional CSS research pipeline" (p. 267). The authors note that it is inevitable for researchers to manually validate the generative results. Therefore, while the LLM was employed as a "truth generator," we also manually analyzed and mapped the main narratives of the six most representative videos. Notably, our manual findings aligned with the stances generated by the LLM, lending some validity to the model's conclusions. The content analysis of word cloud is similar to the stance-taking results generated by LLMs, that is they are all pro-Luigi but with slightly different narratives. This alignment highlights the potential for researchers to effectively collaborate with LLMs in future studies. It also underscores the importance of critically considering how LLMs are utilized for both quantitative and qualitative text analysis, as well as the need to establish robust methods for validating their outputs.

Therefore, future research should investigate the potential impact of YouTube's content moderation policies and algorithmic dynamics on the balance of discourse: whether such perspective, the platform's handling of polarizing content needs to be more transparent and represent different positions fairly to prevent distortions in public opinion. From a technical perspective, improving tools such as Prompt Compass to detect and account for bias could increase the accuracy and reliability of position analysis in social media research.

8. References

Retrieved from

Borra, E., & Plique, G. (2024). ErikBorra/PromptCompass: 2024 models (v0.5). *Zenodo*. https://doi.org/10.5281/zenodo.13175968

Boyd, M. S. (2014). (new) Participatory framework on YouTube? Commenter interaction in US political speeches. *Journal of Pragmatics*, 72, 46–58. https://doi.org/10.1016/j.pragma.2014.03.002

Chohan, U. W. (2025). Propaganda by the deed: Luigi Mangione and UnitedHealthcare. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5078729

García-Avilés, J. A., & de Lara, A. (2018). An overview of science online video. Communicating Science and Technology Through Online Video, 15–27. https://doi.org/10.4324/9781351054584-2

Jr, B. D. (2024, December 23). Luigi Mangione pleads not guilty to murdering Healthcare CEO. *BBC News*. Retrieved from https://www.bbc.com/News/articles/cwypvd9kdewo

Katersky, A., Shapiro, E., & Nalty, A. (2024, December 20). CEO murder suspect Luigi Mangione makes 1st court appearance in NYC on federal charges. ABC7 New York.

https://abc7ny.com/post/unitedhealthcare-ceo-killing-suspect-luigi-mangione-expected-appear-hearing-extradition-new-york/15675725/

Kliff, S., & Abelson, R. (2024, December 5). UnitedHealthcare has faced scrutiny, criticism and lawsuits over its denial of medical claims. *The New York Times*. Retrieved from https://www.nytimes.com/live/2024/12/05/nyregion/brian-thompson-unitedhealthcare-News# delay-deny-defend-united-health-care-insurance-claims

OpenAI. (2023). ChatGPT (Jan 12 version) [Large language model]. OpenAI. https://chat.openai.com/

Rieder, B. (2015). YouTube Data Tools (Version 1.42) [Software]. Available from https://ytdt.digitalmethods.net

Rogers, R. (2018). Otherwise engaged: Social media from vanity metrics to critical analytics. *International Journal of Communication, 12,* 450–472. https://doi.org/1932%E2%80%938036/20180005

Rogers, R. (2024). *Doing digital methods* (2nd ed.). Sage Publications Inc.

Sayer, R. (2024, December 10). Luigi Mangione's arrest in Altoona McDonald's baffles residents: "Here of all places." *CBS News*. Retrieved from https://www.cbsNews.com/pittsburgh/News/luigi-mangione-arrest-altoona-pennsylvania-mcd onalds-reaction/

WordItOut. (2025). WordItOut: Word cloud generator [Tool]. Retrieved January 12, 2025, from https://worditout.com/

Ziems, C., Held, W., Shaikh, O., Chen, J., Zhang, Z., & Yang, D. (2024). Can large language models transform computational social science? *Computational Linguistics*, *50*(1), 237–291. https://doi.org/10.1162/coli a 00502