Investigating Gender Euphoria and Dysphoria on TikTok: Characterization and Comparison

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Abstract. With the emergence of short video-sharing platforms, engagement with social media sites devoted to opinion and knowledge dissemination has rapidly increased. Among these platforms, TikTok is one of the most popular globally and has become the platform of choice for transgender and nonbinary individuals, who have formed a large community to mobilize personal experience and exchange information. The knowledge produced in online spaces can influence the ways in which people understand and experience their own gender and transitions, as they hear about others and weigh experiential and medical knowledge against their own. This paper extends current research and past interview methods on gender euphoria and gender dysphoria to analyze what and how online communities on TikTok discuss these two types of gender experiences. Our findings indicate that gender euphoria and gender dysphoria are differently described in online TikTok spaces. These findings indicate similarities in the words used to describe gender dysphoria as well as gender euphoria in both the comments of videos and content creators' hashtags. Finally, our results show that gender euphoria is described in more similar terms between transfeminine and transmasculine experiences than gender dysphoria, which appears to be more differentiated by gendering experience and transition goals. We hope this paper can provide insights for future research on understanding transgender and nonbinary individuals in online communities.

Keywords: Transgender \cdot Gender euphoria \cdot Gender dysphoria \cdot TikTok \cdot Social media.

1 Introduction

With the emergence of short video-sharing platforms, engagement with social media sites devoted to opinion and knowledge dissemination has rapidly increased [28]. These videos are easy to access and understand, and can be quickly disseminated, driving community formation in online spaces. TikTok is one of

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the most popular of these platforms globally, with nearly 45.1 million daily active users 2 , and has become the platform of choice for transgender and nonbinary individuals (TNB), who have formed a large community exchanging information and sharing knowledge [28]. Extensive online ethnography indicates that this knowledge comes from diverse sources, including medical experts, activists, and influencers, as well as from community members who share information about accessing medical services, personal experiences, what members of the community call "trans joy," traumatic encounters, and intimate changes in their bodies. The knowledge produced in online spaces can influence the ways in which people understand and experience their own gender and transitions, as they hear about others and weigh that personal knowledge against their own. Therefore, in this paper, we extend the current research on gender euphoria and gender dysphoria to reveal the ways in which online communities on TikTok discuss these two differing but related types of gender experience.

Dysphoria is in many ways considered foundational to the recognition of transgender people today, although this is a problematic definition [15]. Dysphoria is often defined as the distress that begets trans identity, more specifically as "clinically significant distress or impairment related to a strong desire to be of another gender, which may include the desire to change primary and/or secondary sex characteristics" [39]. Gender euphoria, on the other hand, is often considered gender dysphoria's inverse or corollary, and is defined as the heightened joy transgender people experience when their gender is recognized and affirmed [1,2,16,31]. Gender dysphoria is largely a medical term that grew from the efforts of trans activists to increase access to medical treatment in conversations with medical practitioners grappling with trans identity in the 1990s. In contrast, gender euphoria rose in use primarily in the past decade or so due to the efforts by community members to have the positive aspects of their gender transition and attendant experiences recognized. Gender dysphoria still largely serves as the label that can officially produce trans identity in medical spaces. because gender-affirming care (i.e., medical transition) is not available unless gender dysphoria has been diagnosed [33], although this does not capture the nuance of many trans and gender nonbinary people's experiences.

TikTok is a video-sharing platform with three main components: the video itself, the comments, and the hashtags that content creators apply to their videos. The video includes a combination of sounds (the auditory backdrop of the video) and the visual field in which the content creator appears. Videos are organized and searchable by the hashtags that content creators apply directly to their videos and are visible to viewers of the video within the TikTok application. The comments section is the space in which TikTok users can interact with the creators of the videos and with each other, to give feedback, have conversations, make jokes, and be in community. Figure 1 illustrates a typical TikTok discussing gender euphoria. This is an actual video that has been deidentified and displays an individual using an anime filter, which obscures their face. Figure 1a illustrates

 $^{^{2}\} https://www.demandsage.com/tiktok-user-statistics$

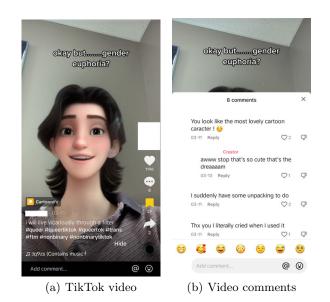


Fig. 1. An example of a TikTok video.

what a video looks like when accessing TikTok, as well as the video description of a TikTok with its hashtags. Figure 1b illustrates the comments under this particular TikTok, and illustrates how users and content creators interact with another in conversation. We focus our analysis on the comments sections and the hashtags applied to TikToks such as this to investigate our central questions [28]. This research will analyze how transgender communities on TikTok define, use, and experience gender euphoria and gender dysphoria to support data-driven and nuanced consideration of these terms across a wide bandwidth of people. This research ultimately works to respect that transgender people are the experts of their own diverse experiences [37].

Here we investigate: (1) how communities of transgender people organize their experiences of gender dysphoria and gender euphoria using those algorithmic structures, and what kinds of emotional weight those terms carry for both content creators and commentors; and (2) how the organization of transmasculine and transfeminine³ communities on TikTok intersect or do not around the topics

³ Transfeminine and transmasculine are terms used to describe transgender experiences. Transmasculine refers to people who are transitioning to a more masculine gender and/or presentation, including trans men, FTM (female-to-male) transsexuals, transmasculine nonbinary people, and so on. Transfeminine refers to people who are transitioning to a more feminine gender and/or presentation, including trans women, MTF (male-to-female) transsexuals, transfeminine nonbinary people, and the like. Our data do not currently get at the experiences of transgender nonbinary people who do not identify as transmasculine or transfeminine.

		$\#Video \\ description$	#Cmts.
# Gender euphoria	116	116	12,647
# Genderdy sphoria	110	110	12,033

 Table 1. Statistics of the collected data.

of gender dysphoria and gender euphoria. According to the above, we could ask the following research questions (RQs):

- RQ1: What types of words are used and how are those words correlated for TikTok comment sections relating to the gender dysphoria and gender euphoria hashtags?
- RQ2: What types of words are used and how are those words correlated for TikTok descriptions relating to the gender dysphoria and gender euphoria hashtags?
- **RQ3**: What sentiments are associated with gender euphoria and gender dysphoria hashtags?
- RQ4: What types of topics are discussed in the gender dysphoria and gender euphoria TikTok online space?

2 Dataset

To explore how people express their gender euphoria and dysphoria in TikTok videos, we scraped data from TikTok⁴ using the TikTok API tool⁵. We extracted videos marked with the hashtag #gendereuphoria or #genderdysphoria, and then collected the video descriptions and comments for each video. Our dataset comprises 116 and 110 videos for each of the two main hashtags and includes 1 description and 100 comments for each video. The statistics of the dataset are in Table 1.

3 Analysis

We group the data into: (1) video descriptions for #gendereuphoria; (2) comments for #gendereuphoria; (3) video descriptions for #genderdysphoria; and (4) comments for #genderdysphoria and analyze the data with WORD CLOUDS, SE-MANTIC NETWORK ANALYSIS, SPEARMAN'S RANK-ORDER CORRELATION, SEN-TIMENT ANALYSIS, and LATENT DIRICHLET ALLOCATION (LDA) ANALYSIS.

RQ1: What types of words are used and how are those words correlated with each other for TikTok comments about gender dysphoria and gender euphoria hashtags?

⁴ https://www.tiktok.com/

⁵ https://davidteather.github.io/TikTok-Api/



Fig. 2. Word cloud of comments for different hashtags.

To answer **RQ1**, we first use WORD CLOUDS to visualize which words people usually use to describe these two hashtags. A word cloud is a visualization of word frequency in a set of texts. Figure 2 shows the words TikTokers typically use in describing gender euphoria or gender dysphoria.

There are wide similarities in the words used to describe gender dysphoria and gender euphoria in the comments on videos. The comments often focus on visual aspects of the videos, with common terms such as "love", "look", and "hair" appearing in both word clouds. In the gender euphoria word cloud, positive terms like "good", "amazing", "happy", "pretty", "handsome", and "beautiful" are prominent. In contrast, the gender dysphoria word cloud features more ambiguous terms like "one", "want", "girl", and "boy", with "look" and "feel" being the largest, highlighting the importance of visual and affective responses in the comments.

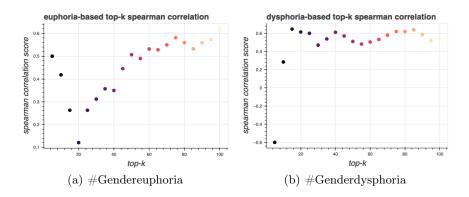


Fig. 3. Spearman's correlation between the top words of comments for different hashtags, by changing the k.

While word clouds provide an overall view of word frequency differences, they lack quantitative detail. Therefore, we use SPEARMAN'S RANK-ORDER COEF-FICIENT to numerically distinguish word frequencies. We calculated Spearman's

coefficient by varying k from 5 to 100 to observe changes in correlation between the top-k words in comments for each hashtag. Figure 3(a) and Figure 3(b) show that the top-k words for gender euphoria and gender dysphoria comments generally have similar ranks. However, Figure 3(a) demonstrates that rank similarity varies with k, decreasing until k=20, then stabilizing. This suggests a latent discrepancy in how TikTok commenters view gender euphoria and dysphoria, particularly in the top 20 words. In contrast, the trend in Figure 3(b) is more stable. This difference likely arises because commenters exhibit more excitement about gender euphoria but avoid disparaging experiences of gender dysphoria. Sentiment analysis (Table 2) supports this interpretation, showing positive attitudes towards gender euphoria and neutral sentiments towards gender dysphoria.

We also conducted SEMANTIC NETWORK ANALYSIS to examine word co-occurrence patterns. Analyzing the top-15 words for both hashtags, the heat maps in Figure 4 reveal relationalities among words. In #gendereuphoria comments, words

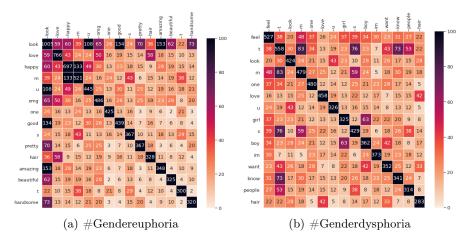


Fig. 4. Semantic Network Analysis for word-pairs in comments of different hashtags.

like "look" and "love" co-occur in 59 comments, while "look" and "good" co-occur in 134 comments, indicating a strong correlation between "look" and "good". People often use phrases like "look good" or "look amazing" to describe gender euphoria. "Hair" is also a significant term in these comments. For #genderdys-phoria comments, the focus is more on feelings, with words like "feel" being prominent. The term "t" (testosterone) suggests a dominance of transmasculine conversations. Words like "m" (masculine) and "know" also show high correlation frequencies.

RQ2: What types of words are used, and how are those words correlated with each other for TikTok descriptions under the gender dysphoria and gender euphoria hashtags?

To explore the words that video creators use to title their videos $(\mathbf{RQ2})$, we apply the same methods as in RQ1 to TikTok video descriptions under the gender dysphoria and gender euphoria hashtags.



Fig. 5. Word cloud of video descriptions for the gender euphoria and gender dysphoria hashtags.

Figure 5(a) and Figure 5(b) show that words used under both hashtags show broad similarity. Common terms include "trans", "LGBTQ", "nonbinary", "for you page", "fem", "genderenvy", "they/them", "enby", and "transmac". Transmasculine terms, such as "masc", "trans boy", "transmasc", "transman", "transguy", and "top surgery", are more common than transfeminine terms like "fem". This could be due to our sample or a higher number of TikTok videos focusing on transmasculine experiences. As expected, "gender dysphoria" and "dysphoria" are more common in the dysphoria sample, and "gender euphoria" and "euphoria" in the euphoria sample. Interestingly, "gender euphoria" appears in the dysphoria cloud, but "gender dysphoria" does not appear in the euphoria cloud. This suggests a recognition of euphoria during dysphoria but not vice versa.

Spearman's coefficient for video descriptions shows a positive correlation with k (see Figure 6). When k is small, the top-k words in one dataset have very different ranks in the other dataset. As k increases, Spearman's correlation score also increases, indicating that on a larger scale, the difference diminishes. This shows broad similarities in how creators title TikToks about gender dysphoria and gender euphoria.

Figure 6(a) and 6(b) demonstrate that while the top-k words for gender euphoria and gender dysphoria are different at smaller k values, the correlation increases with larger k values. This indicates that although specific terms differ initially, broader similarities emerge as more terms are considered, reflecting common themes in how creators title their TikToks about gender experiences. The data suggest that the frequency range in video descriptions for both hashtags tends to converge, highlighting the interconnected nature of gender-related content on TikTok.



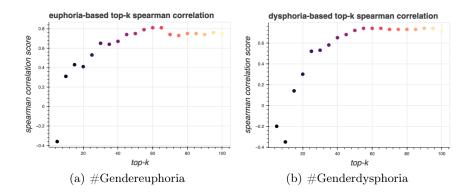


Fig. 6. Spearman's correlation between the top words of video descriptions for different hashtags, by changing the k.

RQ3: What sentiments are associated with gender euphoria and gender dysphoria hashtags?

To investigate **RQ3**, we conducted SENTIMENT ANALYSIS with the Vader⁶ sentiment analysis tool, which is specifically designed for online social networks, to estimate whether the opinions expressed in a given text are positive, negative. or neutral. We ran a sentiment analysis for each comment/video description and report the mean and standard deviation of sentiment scores for each dataset. Scores < -0.05 imply negative sentiment; scores between -0.05 and 0.05 imply a neutral sentiment; and scores > 0.05 imply a positive sentiment. The results are shown in Table 2. From the mean of each dataset, we observe the overall sentiment of users about gender euphoria and gender dysphoria, as expressed in their comments and video descriptions. In contrast to the diversity in the comments, the descriptions for the two hashtags were quite similar. Creators of videos experiencing euphoria and dysphoria themselves expressed little difference when describing the two experiences, at least in the descriptions for the videos. This contrasts with our findings in Spearman's k correlation analysis of comments for those same videos. We conclude that creators and viewers use different expressions of language when focusing on gender euphoria and gender dysphoria. However, this difference could be because video descriptions serve as branding or searchable signposts by which users can find content. In contrast, comment sections can allow for more conversation about a topic.

In our sentiment analysis, the positive associations with gender euphoria and the more neutral emotional weight of gender dysphoria, more negative than that of gender euphoria, are clear in both the comment sections and content creator descriptions for TikToks tagged with #genderdysphoria and #gendereuphoria. The sentiment means of the comment section for both gender dysphoria and gender euphoria are much more positive than those for the hashtags of the content

⁶ https://github.com/cjhutto/vaderSentiment

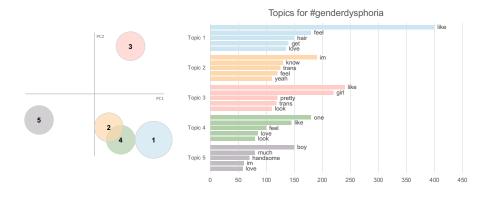


Fig. 7. LDA analysis for #Genderdysphoria comments. For each topic, we show the top 5 words.

creators. This indicates that the emotional weight of TikToks relating to gender dysphoria was much more negative and the positive implications of gender euphoria were significantly less positive for content creators than for commenters. Though comment sections for TikToks related to gender euphoria were statistically much more positive than for those related to gender dysphoria, comment sections related to gender dysphoria remained positive in sentiment and were significantly more positive than were the sentiment analysis for the content creators' descriptions for those videos. This may indicate commenters' attempt to allay the severely negative sentiment of content creators through uplifting comments and positive feedback on their videos relating to their gender dysphoria. Likewise, commenters displayed statistically more positive sentiment toward gender euphoria than did content creators, perhaps again seeking to support and affirm the gender euphoria of content creators.

Table 2. Sentiment analysis of comments and descriptions for the gender euphoria and gender dysphoria hashtags. Mean < 0.05: neutral, mean > 0.05: positive.

	Hashtag	Mean	Std
Comments	# Genderdy sphoria	0.171	0.421
	# Gender euphoria	0.333	0.422
Descriptions	# Genderdy sphoria	0.040	0.387
	# Gender euphoria	0.266	0.413

RQ4: What types of topics are mainly being discussed in the gender dysphoria and gender euphoria TikTok online space?

To answer **RQ4**, we used LATENT DIRICHLET ALLOCATION (LDA), an unsupervised topic modeling method to obtain the most representative words in the

comments we collected [3]. We focus on 5 topics for each hashtag, visualizing the inter-topic distance in two dimensions, and illustrating the top-5 most relevant terms for each topic within the LDA graphs. Based on these rankings, we can compare how people express their views of gender euphoria and gender dysphoria and the terms they used in comment sections to describe those experiences.

Figures 7 illustrates our LDA analysis clusters of the comments with the hashtag of gender dysphoria. Clusters 1, 3, and 5 contained the most salient information. Cluster 3 is best represented by the term "girl' referencing the more transfeminine experience of gender dysphoria (i.e. contains most references to and is, therefore, most different in its focus on that topic). This is also evidenced by the presence of the feminine gendered term "pretty", alongside "girl" among the top 5 terms used. Just as in our word clouds relating to both gender dysphoria and gender euphoria (Figures 2, 5), terms referencing the visual field were quite prominent. Further, the words "look" and "want", relating to desire, are common in the comment section of Cluster 3.

Cluster 5, in contrast, illustrates comments largely represented by the term "boy" along with the masculine gendered term "handsome", in the top five terms. Cluster 5, then, likely depicts the more transmasculine experience on TikTok. The term "want" is the sixth most commonly used term in these comments, but unlike Cluster 3, "look" is not among the most common words. Clusters 3 and 5 appear to be maximally distant in Figure 5, indicating that the topics centered in the comment sections of TikToks relating to gender dysphoria are very different for the transmasculine and transfeminine experiences.

Cluster 1 is equidistant from both Cluster 3 and Cluster 5 and focuses predominantly on the visual field in these transgender dysphoric experiences. Cluster 1 is most represented by the term "hair" in the comments, reinforcing the data in the word clouds shown in Figure 2(b) and 5(b) about the importance of hair appearance for those experiencing gender dysphoria. Terms such as "like", "feel", "get", and "love" all hint at a kind of personal emotive experience and desire in videos relating to gender dysphoria. Overall, these results support our findings about gender dysphoria (see Table 2) from the sentiment analysis of comments: The terms used do not connote strong negativity, though the topic of TikTok is not a positive one.

Figure 8 illustrates the clusters found by the LDA analysis of TikTok comments tagged gender euphoria. The 5 clusters focus on different positive terms, bolstering the results of our sentiment analysis, indicating an overall positive weight for comments pertaining to gender euphoria.

Cluster 1 is most illustrated by the terms "like", "good", and "look", as well as "happy", indicating the importance of visuality and the joy visible to commenters or experienced by commenters watching these TikToks. Cluster 2's most significant term is "beautiful", and overlaps significantly with Cluster 1, which also centers words such as "like", "look", and "happy". Both these two clusters demonstrate a strongly positive sentiment overall.

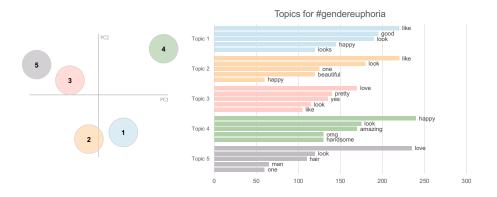


Fig. 8. LDA analysis for #Gender euphoria comments. For each topic, we show the top 5 words.

Clusters 3 and 5 sit in a different quadrant from Cluster 1 and 2, and likewise overlap significantly. Both Clusters 3 and 5 indicate that terms such as "love", "look", and "like" appear as the top five most used words in the comment sections analyzed. Cluster 3 also includes the term "pretty", whereas Cluster 5 includes terms such as "man" and "hair", indicating that Cluster 3 likely represents comments more focused on transfeminine experiences of gender euphoria, in contrast to Cluster 5, which likely represents a more transmasculine experience. In addition to Cluster 5, Cluster 4 also seems to represent a transmasculine experience, with the term "handsome" being most used in its clustering of commented words. This could indicate, just as in our word clouds (Figures 2, 5), a greater transmasculine presence in TikTok spaces relating to gender euphoria. Further, if Cluster 5 largely relates to comments focusing on transmasculine gender euphoria, it raises the question of whether the word "hair" is a less gender neutral term in practice within TikTok comments, and whether it tends to be associated, as our results indicate, with conversations about transmasculinity.

Cluster 4 dovetails with other clusters in terms of its overall positive word associations, and includes words such as "look", "happy", and "amazing". There were far fewer overarching differences in the clusters associated with gender euphoria than with those associated with gender dysphoria. Gender dysphoria LDA analysis delineated clear transmasculine and transfeminine clusters of comments, whereas the differences in comment sections relating to gender euphoria were much less salient. Though gender dysphoria significantly differentiates between transmasculine and transfeminine experiences, the terms used to describe gender euphoria appear to have wide resonance across transgender lives.

4 Discussion

In answering **RQ1** - **RQ4**, the synthesis of our results across methodologies was quite telling. As expected, the two gender experiences, gender dysphoria

and gender euphoria, are characterized by different terms in the description section of TikTok videos. Our Spearman's k Correlation (Figure 6) analyzed the description section of TikToks under the hashtags for #genderdysphoria and #gendereuphoria and indicated that when people describe their own experiences of gender dysphoria and gender euphoria, they use different terms to do so. This analysis found that these two experiences are differentiated by TikTok users and was expected based on clinical research into gender dysphoria and gender euphoria [8,15,16,18,22,28,30].

Our data support gender diverse content creators' claims on TikTok that these spaces are very uplifting, and indicates the positive impacts of community building for gender diverse individuals online [36]. Because commenters are primarily able to comment on the visual field of a video, which is a limited foray into the personal world of another person, the comments tended to focus on optical materialities, evidenced by the results of our word clouds (Figure 2) and LDA analysis (Figure 7 and 8) evaluating comment sections which showed consistent centering of terms such as "look". Our semantic network analysis indicated that "look" was a term used most commonly in comment sections in regards to gender euphoria, whereas in comment sections in regards to gender dysphoria, terms such as "feel" tended to be used more often. Words such as "love" and "like" also appeared consistently in results focused on comment sections, including word clouds (Figure 2 and 5), semantic network analysis (Figure 4), and LDA analysis (Figure 7 and 8) of both gender dysphoria and gender euphoria. Our sentiment analysis of hashtags and comments may point to why: commenters were consistently more positive than content creators, and the presence of positive terms such as "love" and "like" in comments may indicate commenters' attempts to uplift or otherwise positively influence transgender content creators talking about their gender dysphoria or gender euphoria. Also, our Spearman's k correlation analysis of TikTok comments (Figure 3) found a wide difference between comment sections for videos about gender euphoria and gender dysphoria, such that commenters were significantly more positive about gender euphoria, but not significantly negative about gender dysphoria. This finding is supported by our sentiment analysis on comments regarding gender dysphoria, in which commenters were also significantly more positive than content creators.

Further, our findings reflect the experience of some transfeminine voices, which argue that transmasculine perspectives on TikTok tend to dominate online conversations. Our word clouds (Figure 2 and 5), semantic network analysis (Figure 4), and LDA analysis (Figure 7 and 8) all indicate that transmasculine voices may dominate TikTok spaces devoted to gender euphoria and gender dysphoria based on the increased presence of terms and the heightened influence of clusters relating to the transmasculine gender experience. However, these findings are not conclusive. Further research using these tools are needed to determine whether this is a fact of our sampling or a fact of the TikTok online space.

Finally, our research indicates that while gender dysphoria may be more delineated by transmasculine versus transfeminine gender trajectories and experiences, gender euphoria may be a far more broad-based experience across transgender lives. Our LDA analysis further indicates that in comment sections the terms transmasculine and transfeminine people use to describe their experiences of gender dysphoria are more divergent than the words used to describe experiences of gender euphoria. Clusters from the gender euphoria LDA analysis (Figure 8) showed more consistent overlap in the graphs as well as more similar word implications than that of the LDA analysis focused on gender dysphoria (Figure 7). Also, the LDA analyses focused on gender dysphoria clearly delineated transmasculine and transfeminine clusters and terms, which was a pattern absent in the LDA analysis focused on gender euphoria. This is a fascinating finding that deserves greater research.

5 Related Work

There has been significant research into how TikTok operates and how knowledge dissemination tends to operate on social media sites [6,9,13,21]. [38] have done model research on how user preferences function on TikTok, for example. [40] have measured the influence of user-generated content and its helpfulness for viewers, and [26] have researched how rumor functions across these online community spaces. The importance of knowledge dissemination is critical, as [23] have analyzed in the context of community health interventions and improving the lives of patients. Social media sites can be a powerful force in support of knowledge sharing [4,5,14,20], including for the sharing of scientific information and medical publications [17]. [28], in an important study, has analyzed how content about transgender communities can move across the app, but was limited to the analytics of MacKinnon's TikTok account itself, and not a wider net of analysis across TikTok using different approaches. Our research complements this approach by analyzing content about trans people broadly across TikTok.

Social media, particularly TikTok and YouTube, have become important sites of community building and interaction among LGBTQ individuals [7,27,29,32]. Social media sites are driven by algorithms that filter, manage, and direct content from creators in positive and negative ways, which users can resist or at other times cannot [10,11,12,19,34,35] (Gillespie 2015). This is especially the case on TikTok, where every user has access to a highly personalized For You Page on which in-app algorithms determine what content will appear. Thus, analyzing these connections using different methodologies is a critical next step in research about LGBT+ communities online, particularly transgender communities. There is a dearth of such approaches, although [25] study on the sentiment analysis of transgender people's social media posts about mental health conditions is extremely relevant to such a research agenda. Studies like [25] and this research demonstrates the potentially surprising associations of trans communities in virtual spaces and are critical to supporting this growing minority community.

Previous studies on gender dysphoria and gender euphoria specifically have tended to utilize social media as a method for recruitment [2,15,16,18,22,28,8,30],

but have relied on interview methods, which are limited in terms of the population of participants that can be included. Topical and sentiment methodological analysis allows for a wider engagement with different users about personal experiences, such as gender dysphoria, and allows the data on that topic to arise not from specific questions posed, which may affect the type of data collected, but rather from the discourse already occurring between trans people. Our research intervenes into the study of gender dysphoria using topic analysis and illustrate how trans communities discuss gender dysphoria, gender euphoria, and the expected and potentially surprising ways in which these conversations align.

6 Conclusion and Future Work

This study highlights the effectiveness of topical and sentiment analysis in understanding interactions among transgender communities on TikTok. Unlike previous research focusing on user-based analytics [28], our analysis of video content itself provides new insights into community formation and engagement.

Our methods reveal interaction patterns, content types, and terminology that are critical for researchers studying transgender and other marginalized communities on TikTok. These findings offer a framework for understanding how these communities discuss and interact with various topics.

Future research could investigate the extent to which gender-diverse communities on TikTok support and affirm creators. Key areas of interest include the support received by different creators, the expression of gender euphoria versus dysphoria, and the potential dominance of transmasculine voices. Longitudinal sentiment analysis, comparing comments with content hashtags and descriptions, could provide deeper insights into these dynamics and self-perception in virtual environments [24].

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References

- Austin, A., Papciak, R., Lovins, L.: Gender euphoria: A grounded theory exploration of experiencing gender affirmation. Psychology & Sexuality 13(5), 1406– 1426 (2022)
- Beischel, W.J., Gauvin, S.E., van Anders, S.M.: "a little shiny gender breakthrough": Community understandings of gender euphoria. International Journal of Transgender Health 23(3), 274–294 (2022)
- Blei, D., Ng, A.Y., Jordan, M.I.: Latent dirichlet allocation. Journal of Machine Learning 3, 993–1022 (2003)
- Castillo, L.I., Hadjistavropoulos, T., Brachaniec, M.: The effectiveness of social media in the dissemination of knowledge about pain in dementia. Pain Medicine 22(11), 2584–2596 (2021)

- Chan, A.K., Nickson, C.P., Rudolph, J.W., Lee, A., Joynt, G.M.: Social media for rapid knowledge dissemination: early experience from the covid-19 pandemic. Anaesthesia 75(12), 1579 (2020)
- Fiallos, A., Fiallos, C., Figueroa, S.: Tiktok and education: Discovering knowledge through learning videos. In: 2021 Eighth International Conference on EDemocracy & EGovernment (ICEDEG). pp. 172–176. IEEE (2021)
- 7. Fredenburg, J.: YouTube as an ally of convenience: The platform's building and breaking with the LGBTQ+ Community. Georgetown University (2020)
- Galupo, M.P., Pulice-Farrow, L., Lindley, L.: "every time i get gendered male, i feel a pain in my chest": Understanding the social context for gender dysphoria. Stigma and Health 5(2), 199 (2020)
- Garcia, M.B., Juanatas, I.C., Juanatas, R.A.: Tiktok as a knowledge source for programming learners: a new form of nanolearning? In: 2022 10th International Conference on Information and Education Technology (ICIET). pp. 219–223. IEEE (2022)
- 10. Gillespie, T.: Platforms intervene. Social Media & Society 1(1), 1–2 (2015)
- Grandinetti, J.: Examining embedded apparatuses of ai in facebook and tiktok. Ai & Society pp. 1–14 (2021)
- Grandinetti, J., Bruinsma, J.: The affective algorithms of conspiracy tiktok. Journal of Broadcasting & Electronic Media pp. 1–20 (2022)
- Hayes, C., Stott, K., Lamb, K.J., Hurst, G.A.: "making every second count": Utilizing tiktok and systems thinking to facilitate scientific public engagement and contextualization of chemistry at home (2020)
- Huang, L., Clarke, A., Heldsinger, N., Tian, W.: The communication role of social media in social marketing: a study of the community sustainability knowledge dissemination on linkedin and twitter. Journal of Marketing Analytics 7, 64–75 (2019)
- Jacobsen, K., Devor, A., Hodge, E.: Who counts as trans? a critical discourse analysis of trans tumblr posts. Journal of Communication Inquiry 46(1), 60–81 (2022)
- Jacobsen, K., Devor, A., et al.: Moving from gender dysphoria to gender euphoria: Trans experiences of positive gender-related emotions. Bulletin of Applied Transgender Studies 1(1-2), 119–143 (2022)
- 17. Johannsson, H., Selak, T.: Dissemination of medical publications on social media–is it the new standard? (2020)
- Johnson, A.H.: Rejecting, reframing, and reintroducing: Trans people's strategic engagement with the medicalisation of gender dysphoria. Sociology of Health & Illness 41(3), 517–532 (2019)
- Karizat, N., Delmonaco, D., Eslami, M., Andalibi, N.: Algorithmic folk theories and identity: How tiktok users co-produce knowledge of identity and engage in algorithmic resistance. Proceedings of the ACM on human-computer interaction 5(CSCW2), 1–44 (2021)
- Khan, M.N., Ashraf, M.A., Seinen, D., Khan, K.U., Laar, R.A.: Social media for knowledge acquisition and dissemination: The impact of the covid-19 pandemic on collaborative learning driven social media adoption. Frontiers in Psychology 12, 648253 (2021)
- Kong, W., Song, S., Zhao, Y.C., Zhu, Q., Sha, L.: Tiktok as a health information source: assessment of the quality of information in diabetes-related videos. Journal of Medical Internet Research 23(9), e30409 (2021)
- 22. Konnelly, L.: Transmedicalism and 'trans enough': linguistic strategies in talk about gender dysphoria. Gender & Language 16(1) (2022)

- 16 SJ et al.
- Langley, J., Wolstenholme, D., Cooke, J.: 'collective making'as knowledge mobilisation: the contribution of participatory design in the co-creation of knowledge in healthcare. BMC health services research 18, 1–10 (2018)
- Lee, A.Y., Mieczkowski, H., Ellison, N.B., Hancock, J.T.: The algorithmic crystal: Conceptualizing the self through algorithmic personalization on tiktok. Proc. ACM Hum. Comput. Interact. 6(CSCW2), 1–22 (2022)
- Li, M., Wang, Y., Zhao, Y., Li, Z.: Transgender community sentiment analysis from social media data: A natural language processing approach. CoRR abs/2010.13062 (2020)
- Li, Z., Du, X., Zhao, Y., Tu, Y., Lev, B., Gan, L.: Lifecycle research of social media rumor refutation effectiveness based on machine learning and visualization technology. Information Processing & Management 59(6), 103077 (2022)
- Lovelock, M.: 'is every youtuber going to make a coming out video eventually?': Youtube celebrity video bloggers and lesbian and gay identity. Celebrity studies 8(1), 87–103 (2017)
- MacKinnon, K.R., Kia, H., Lacombe-Duncan, A.: Examining tiktok's potential for community-engaged digital knowledge mobilization with equity-seeking groups. Journal of medical Internet research 23(12), e30315 (2021)
- Miller, J.F.: Youtube as a site of counternarratives to transnormativity. Journal of homosexuality 66(6), 815–837 (2019)
- Pulice-Farrow, L., Cusack, C.E., Galupo, M.P.: "certain parts of my body don't belong to me": Trans individuals' descriptions of body-specific gender dysphoria. Sexuality Research and Social Policy 17, 654–667 (2020)
- Rachlin, K.: Medical transition without social transition: Expanding options for privately gendered bodies. Transgender Studies Quarterly 5(2), 228–244 (2018)
- Rodriguez, J.A.: Lgbtq incorporated: Youtube and the management of diversity. Journal of Homosexuality pp. 1–22 (2022)
- shuster, s.m.: Trans Medicine: The Emergence and Practice of Treating Gender. New York University Press (2021)
- Siles, I., Valerio-Alfaro, L., Meléndez-Moran, A.: Learning to like tiktok... and not: Algorithm awareness as process. New Media & Society p. 14614448221138973 (2022)
- 35. Simpson, E., Hamann, A., Semaan, B.: How to tame "your" algorithm: Lgbtq+ users' domestication of tiktok. Proceedings of the ACM on Human-Computer Interaction **6**(GROUP), 1–27 (2022)
- Singh, A.A.: Transgender youth of color and resilience: Negotiating oppression and finding support. Sex Roles 68, 690–702 (2013)
- 37. Solutions Not Punishments Collaborative: Deeper than visibility (2022)
- Tao, Z., Wei, Y., Wang, X., He, X., Huang, X., Chua, T.S.: Mgat: Multimodal graph attention network for recommendation. Information Processing & Management 57(5), 102277 (2020)
- 39. Turban, J.: What is gender dysphoria? (2020), https://www.psychiatry. org/patients-families/gender-dysphoria/what-is-gender-dysphoria, american Psychiatric Association
- Zhuang, W., Zeng, Q., Zhang, Y., Liu, C., Fan, W.: What makes user-generated content more helpful on social media platforms? insights from creator interactivity perspective. Information Processing & Management 60(2), 103201 (2023)