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POSTER

How Algorithm Awareness Impacts Algospeak Use on TikTok

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ABSTRACT

Algospeak refers to social media users intentionally altering or substituting words when creating or sharing online content, for example, using 'le$bean' for 'lesbian'. This study discusses the characteristics of algospeak as a computer-mediated language phenomenon on TikTok with regards to users' algorithmic literacy and their awareness of how the platform's algorithms work. We then present results from an interview study with TikTok creators on their motivations to utilize algospeak. Our results indicate that algospeak is used to oppose TikTok's algorithmic moderation system in order to prevent unjust content violations and shadowbanning when posting about benign yet seemingly unwanted subjects on TikTok. In this, we find that although algospeak helps to prevent consequences, it often impedes the creation of quality content. We provide an adapted definition of algospeak and new insights into user-platform interactions in the context of algorithmic systems and algorithm awareness.

CCS CONCEPTS

• **Information systems** → **Social networks**; • **Human-centered computing** → **User studies**.

KEYWORDS

TikTok, content moderation, algorithmic literacy, communicative practice, qualitative interviews

1 INTRODUCTION

Algospeak generally refers to the practice of intentionally shortening, misspelling, or substituting specific words as part of creating and sharing content on social media platforms, for example, using the spelling 'seggs' for 'sex' [2]. Algospeak is primarily associated with the short-video platform TikTok, and is commonly used in text on screen, video captions, and hashtags. As a computer-mediated language phenomenon, algospeak differs from similar forms of written netspeak, such as chatspeak, leet speak, or LOLspeak [3, 14]. Social media users adopt algospeak in reaction to their experiences

with platform algorithms and as a form of algorithm awareness, meaning they are to some extent able to understand and asses what algorithms will do when they interact with them [19]. Such algorithmic literacy stems from being both content creators and consumers of social media content. Analyzing algospeak on TikTok helps to define forms and characteristics of this communicative phenomenon, and provides detailed insights into users' motivations and experiences in adapting and establishing forms of social media interaction. We take a qualitative social and behavioral approach to exploring questions of web and society by interviewing TikTok creators about their general motivations for using algospeak as a form of computer-mediated communication in video creation and sharing. Our study addresses communicative and linguistic aspects of usability on social media platforms in relation to online expression, self-presentation, and algorithm awareness by asking: *What motivates TikTok users to utilize algospeak in video creation?* and *How can we define algospeak as a form of audiovisual communication on social media?*

2 BACKGROUND AND RELATED WORK

Teenagers and young adults primarily use TikTok to create content-based communities of interest, negotiate and promote their online personae, and consume, share, and create videos [6]. Based on their experiences with platform mechanisms and algorithmic systems [20], TikTok users largely develop algorithmic literacy [13] and folk theories about how and why the platform's algorithm selects, pushes, and also restricts videos from appearing on 'for you' pages [9]. Because only little is known about how TikTok algorithms work, experienced virality or shadowbanning of content are often met with perplexity. For example, while TikTok's algorithms and human moderators review uploaded content for possible breaches of the community standards [21], the platform has also shadowbanned LGBTQ+ creators [15] and restricted content visibility for disabled and obese creators without present guideline violations [22]. To investigate unwarranted consequences in relation to language use, previous research on sociolinguistics and computer-mediated communication on social media largely applies quantitative approaches. For example, studies analyze the language selection of bilingual Twitter users regarding social capital [8], examine the rhetoric of comments on political Facebook posts [16], or interpret lexical markers of minority stress experience in Lesbian, Gay, Bisexual, Transgender, Queer + (LGBTQ+) communities on Reddit [18]. Moreover, research on the relationship between algorithmic systems and communicative practices also focuses on language use to avoid justified consequences. Relevant studies look at, for example, how users substitute emojis for toxic language to evade algorithmic detection of problematic content [7], how orthographic variations such as leetspeak are used to avoid censorship [1], or how *not* using hashtags on pro-eating disorder content evades content moderation [4].
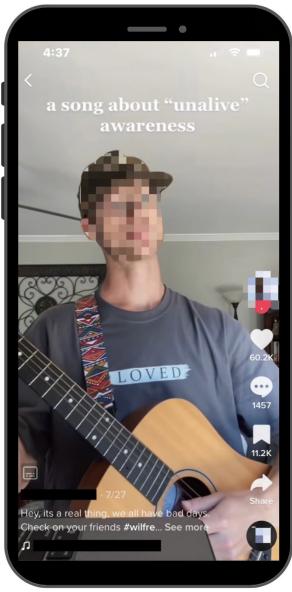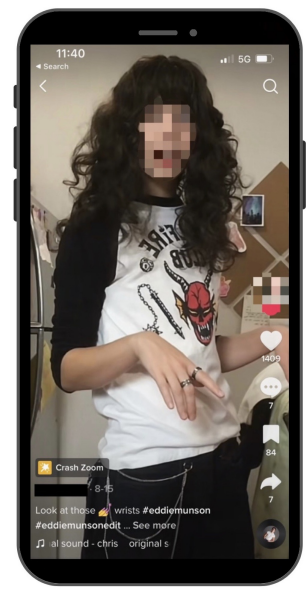
(a) This video example uses the algospeak "unalive" to reference suicide awareness.
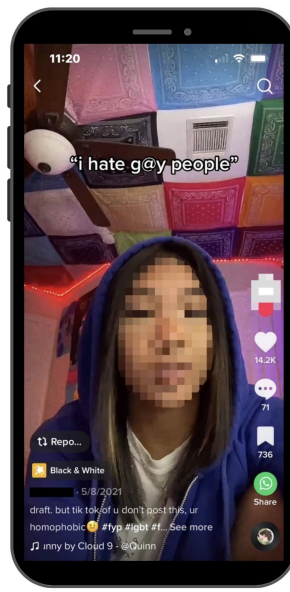
(b) This video example adapts the lexical variation ("g@y") as algospeak for 'gay'.

(c) This video example uses emojis (🎇) and gestures (bent wrist) to replace the written word 'gay'.

Figure 1: These three figures show examples of various algospeak terms that we searched for on TikTok.

3 METHOD

3.1 Sampling of Algospeak Examples and Participant Recruitment

We followed a qualitative research process to examine algospeak as a specific computer-mediated language phenomenon of considering a platform's algorithm when creating and sharing audiovisual content on social media. In June 2022, we initially created a list of 70 well-known algospeak examples by looking at relevant social media news stories (e.g., [5, 11]) and posts on Twitter, Reddit, and TikTok that used algospeak (see Table 1). We then searched these 70 algospeak terms on TikTok to find creators who were using algospeak as potential participants for our interview study. We excluded videos in which a term was actually used in its literal meaning and not as algospeak (e.g., 'swimmers' to mean people swimming, instead of vaccinated people), and videos that showed graphic nudity, violence, or extremism. Since TikTok does not allow direct messaging unless accounts are following each other, we contacted creators through their linked Instagram accounts.

3.2 Data Collection and Analysis

In June and July 2022, we conducted 19 qualitative semi-structured interviews [10] with TikTok creators in the U.S. (15), U.K. (2), and Canada (2) who were aged 19 to 32 and self-reported as White (16), Black (1), Asian (1), and biracial (White and Black) (1); 73% identified as female. As of July 2022, participants had between 14k and 554.1k followers on TikTok, and had posted between 44 and 1.9k videos, for which they in total received between 67.4k and 35.7m likes (see Table 2). We acknowledge that our participant data presents bias regarding country, gender, age, and ethnicity. In the interviews, we asked participants questions to learn more about their general motivations for using algospeak in their videos, for example, "What influences your decision to use algospeak?" or "How much does your experience with the TikTok algorithm play a role in your decision to use algospeak?" The interviews lasted on average 30 minutes and were conducted and recorded after obtaining the participant's consent. All interviews were anonymized, transcribed using an online transcription service, and then analyzed by three trained researchers following a qualitative open coding process [17]. After the first interview was coded by each researcher, all researchers met to discuss and compare each other's application of codes to create a code book for further reference. In this process, we found a high level of agreement, which ensured the validity and reliability of the qualitative coding results [12]. The remaining interviews were then equally split between all researchers. Following this process, we generated 197 codes across ten categories. We will discuss the two most relevant categories for our research interest: (1) *definition of algospeak* and (2) *motivations for using algospeak*.

4 MOTIVATIONS FOR UTILIZING ALGOSPEAK

Overall, we find that all participants posted about their lived experiences and interests, and though their video content was sometimes "Not Safe For Work" (NSFW), they felt that it was at least valuable to a particular audience (e.g., LGBTQ+ viewers). Participants either adopted algospeak that they saw on TikTok, or created it on their own, in order to avoid incurring consequences for posting about subjects that they felt were secretly unwelcome on TikTok yet not explicitly prohibited by the app's community guidelines.

Algospeak example	Clear Word Referent
@b0rt!0n	abortion
accountant	sex worker
auti$m	autism
Backstreet Boys reunion tour	COVID-19 pandemic
blink in lio	link in bio
blk	Black
clock app	TikTok
corn	porn
cornucopia	homophobia
depressi0n	depression
ED	eating disorder
frog	fuck
kermit sewer slide	commit suicide
le$bean	lesbian
ouid	weed
panda express	COVID-19 pandemic
SA	sexual assault
seggs	sex
SH	self-harm
sh!t	shit
swimmers	vaccinated people
the vid	COVID-19
unalive	dead
yt	White

Table 1: This table shows some of the algospeak examples we collected and used to contact TikTok users for our interviews.

	Followers	Likes	Videos	Algospeak Recruitment Example
P01	68.2k	4.1m	2.0k	auti$m
P02	255.7k	7.4m	1.9k	shmex
P03	20.6k	1.7m	44	le$bean
P04	14k	67.4k	161	blink in lio
P05	175.1k	8.9m	498	blk
P06	73.9k	5.4m	620	le$bean
P07	86.3k	2.0m	204	clock app
P08	268.1k	17.7m	1.1k	link in bio
P09	55.6k	1.9m	425	SA
P10	289.4k	2.9m	274	seggs
P11	39.5k	2.9m	751	✋
P12	20.9k	389k	184	str8
P13	59.9k	4.9m	1.4k	blink in lio
P14	103.2k	6.9m	310	SA
P15	554.1k	35.7m	1.9k	h0rny
P16	264.1k	6.9m	163	corn
P17	316.2k	5.0m	1.1k	blink in lio
P18	80.3k	2.2m	586	h0rny
P19	22.0k	1.5m	303	clock app

Table 2: This table shows the TikTok account data for our participants (as of July 2022) and the algospeak term through which we recruited each particpant.

To Prevent Unjust Violations. TikTok states that it notifies users when any visual, textual, or auditive content of a video violates its community guidelines. Most participants mentioned that they had received one or more specific violations from TikTok prior to the interview, including violations for harassment and bullying (P09, P15, P17, P19), dangerous acts and challenges (P08, P11, P15), and adult nudity and sexual activities (P01, P02, P06, P10, P16). These violations resulted in removal of video content (P07, P09, P10, P11, P15, P16, P18, P19), a temporary inability to upload video content (P10, P11, P17–P19), or a temporary or permanent account ban (P11, P16, P17). However, all the violations that participants received were in response to benign content that involved community-relevant subjects, niche interests, or educational intent. As a result, the algospeak that participants adopted directly relates to the unjust violations they had received on TikTok. For example, P19, a queer creator, mentioned that when writing the anti-gay slur "faggot" in a reclaimed rather than hateful way, their content was *"always taken down for hate speech."* This motivated them to instead utilize the algospeak consisting of the letter "f" and 🥖 which reads as "f-baguette" (to mimic the sound of the word "faggot") to prevent harassment and bullying violations while still being able to create community-relevant and identity-based content. P07, who posted content about books and reading, used 🔪 to discuss fictional *"murder"* in an attempt to avoid a wrongful violation for dangerous acts and challenges. Additionally, P10, a sex educator, mentioned using a peach emoji (🍑) to refer to *"booty play"* with the goal of preventing an adult nudity and sexual activities violation for sharing sex education content. These examples indicate that participants reflected critically on their experiences with receiving violations. They used their understandings to anticipate violations that their video content might unjustifiably face, which motivated and informed their use of algospeak as an evasion tactic to ensure that they could post content that did not truly violate TikTok's guidelines.

To Prevent Shadowbanning. In addition, some participants (P03, P05, P06, P12, P14) felt that they experienced shadowbanning on TikTok, meaning the app seemingly prevented others from viewing their videos without notifying the participant of any guideline violation. The feeling of being *"silently restricted"* (P14) encouraged participants to adopt algospeak. For example, P05 thought that TikTok shadowbanned one of their videos involving a race-related word that *"TikTok must have understood as derogatory"*, which made them *"try the algospeak version of that word"*. In contrast, few participants (P07–P09) noted that algospeak use might sometimes result from creators' incorrect assumptions that if their content did not receive the number of views that they anticipated, it meant that their content was shadowbanned. They hinted that algospeak might be a *"hyper-paranoid kind of language"* (P07) rather than a necessary tool for preventing consequences, since they did not believe that TikTok doled out unofficial consequences like shadowbanning.

5 UTILIZING ALGOSPEAK ON TIKTOK BEYOND WRITTEN LANGUAGE

Beliefs regarding the futility of written algospeak prompted multiple participants (P02, P05, P08, P14, P15, P17, P19) to use and create algospeak that is *"unique and novel"* (P19), since they thought that it would be more difficult for TikTok to moderate. For example, P05 suggested that using emojis as algospeak is more effective than using words: *"TikTok can still figure out what I'm trying to say. So*

then I have to use emojis to signify what I was saying in a video". Additionally, P02 doubted that TikTok's content moderation system could identify gestures as easily as it identifies words: *"I think it'll be much less likely that they'll ever be like, 'Ah, he widened his eyes, and he nodded at the camera. That's implicating sexual contact. Block it'".* These user practices demonstrate that the existing definitions of algospeak as code words and phrases are insufficient, as creators are continuously evolving algospeak beyond simple word replacements. Their algorithmic literacy is key in feeling the need to extend and innovate algospeak, and assists them in deciding how best to prevent consequences.

For audiovisual communication on TikTok and similar platforms, such as Instagram Reels or YouTube Shorts, algospeak must be defined as communicative practice beyond written text. Algospeak means that social media users adapt any textual, visual, and auditive communication to experiences of algorithmic influencing or interfering on online platforms. Algospeak involves the adaptation of any textual, visual, or auditive communication to experiences of algorithmic interference on online platforms.

6 THE TWO SIDES OF ALGOSPEAK

Using algospeak as an evasion tactic sometimes brought added benefits to participants. For example, some (P06, P07, P12, P15, P16) noted that their audiences considered algospeak to be humorous like LOLspeak. According to P15, algospeak helped them *"give the people what they un-expected"*, or defy audience expectations through comedy. However, for multiple participants (P01, P05, P07, P08, P12, P15), the added benefits of using algospeak did not outweigh their frustrations at feeling compelled to use it. P12 said: *"I would like to be in a situation where I don't have to use algospeak to avoid suppression".* This suggests that algospeak can feel like the only tool participants have to prevent undeserved consequences. They feel forced to use it in order to continue sharing their content, even though it can interfere with the creation of their content itself (*"You spend more time trying to dodge this little community guidelines bot opposed to actually creating content that is genuine and helpful"* (P08)). The notion that preventing consequences and creating quality content are two conflicting goals indicates that algospeak is akin to a *"double-edged sword"* (P10). Algospeak might help the creators who use it evade consequences, but it simultaneously limits their ability to create content authentically on TikTok.

7 CONCLUSION

We find that the motivation to use algospeak on TikTok is closely tied to users' algorithmic literacy and their experiences with algorithmic content moderation. Ultimately, algospeak is utilized to circumvent algorithmic restrictions and the banning of benign content that does not violate TikTok's official guidelines. However, users feel compelled to use and continuously reinvent algospeak to secure communities of interest on TikTok without being hindered by algorithmic systems. Our results demonstrate that the adaptation of algospeak from written forms to visuals and gestures indicates high algorithmic literacy among TikTok users. This calls for a holistic and continuous understanding of this evolving online communication practice. Future research can address the practice

of algospeak in greater detail, for example, by looking at how content moderation understandings affect algospeak usage, and how algospeak impacts TikTok's content moderation.

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