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College Students and Yik Yak: An Exploratory Mixed-Methods Study

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Abstract

This study, employing an exploratory mixed-methods approach, explores college students' use of Yik Yak, a pseudo-anonymous social media platform that allows users to post short messages and engage primarily with other nearby users. Study 1 qualitatively examined student uses and perceptions of the app through 12 in-depth interviews with Yik Yak users. Study 2 conducted a content analysis of yaks ($N = 3,905$) from 24 colleges and universities to gain a better understanding of the content that students post and engage with inside the app. The combination of qualitative and quantitative findings offers insight into the complex phenomena of Yik Yak in a university setting. Limitations and future directions of research are discussed.

Keywords

Yik Yak, social media, anonymity, mixed methods, phenomenology

"Fave game to play while driving around Emory: not hit an Asian with a truck," was just one of many controversial statements posted on the anonymous social media app Yik Yak since its 2013 debut (Mahler, 2015). But is this sort of inflammatory statement truly reflective of the typical student experience using Yik Yak? This study explores both student's self-reported experiences with the smartphone application Yik Yak and content posted by student users in the app to develop a better understanding of how and why the platform is employed. Findings from this study will be essential to university administrators in understanding Yik Yak culture and community building on campuses across the United States.

Yik Yak differs from other social media platforms in how it combines anonymity with a location-based user experience. Yik Yak enables users to post short messages, or "yaks," anonymously to a twitter-like feed that can be viewed by other online users within a close geographic proximity while affording users the opportunity to "peek" at other campuses' feeds. Users also have the ability to determine a yak's success by upvoting or downvoting content. A yak that receives more upvotes results in a higher position on the feed, and a yak that receives more down-votes results in a lower position or removal from the feed. In 2016, Yik Yak has added new features in an attempt to keep its user base engaged and garner more profits (Perez,

2016). Such new features include the option to include a handle, or username, with posts and the ability to send private messages to other users.

Since its creation, media attention surrounding Yik Yak has focused on negative examples of students using the app (Bailey, 2014). Media coverage has focused on the app being used for bomb and shooting threats on high school and college campuses (Glum, 2014) to the sexual harassment of students and teachers (Mahler, 2015). The creators of Yik Yak have responded to concerns about abuse and misuse by allowing school administrators to request a geofence that will disable the application around a campus and by releasing user identification information to law enforcement authorities for investigation purposes. Despite these corrective steps, however, the app remains controversial with the public (Magid, 2015).

Although the app has received an abundance of media attention, little scholarly research has yet been conducted examining the platform. The app's popularity continues to

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grow on school campuses, and as it becomes a part of students' daily lives, further research could offer a more comprehensive understanding of the role of anonymous communication technologies that are embedded within campus communities. To more fully understand the role of Yik Yak on campuses and in students' lives, we must first understand the ways in which the app is used. This study triangulates qualitative and quantitative methods to explore the question, "How do students use Yik Yak?"

Anonymity

Within the communication discipline, research on anonymity has varied from its role in whistle blowing (Near & Miceli, 1985) and its contribution to identity management (Erickson & Fleuriet, 1991) to its effect on group polarization online (Sia, Tan, & Wei, 2002). Overall though, research on anonymity has been carried out in very specific settings (Rains & Scott, 2007) and has been criticized for the lack of available theoretical models (Williams, 1988). Scott (1998) defined anonymity as "the degree to which a communicator perceives the message source as unknown or unspecified" (p. 387). In other words, anonymity is not considered a binary, but rather it can operate as a construct on a continuum.

Studies demonstrate that anonymous communication platforms result in an increase in disinhibited behavior (Joinson, 2001; Pinsonneault & Heppel, 1997; Suler, 2004). Social networking sites like *Whisper* and *Secret* afford user anonymity because users are more likely to disclose personal information when they can do it anonymously (Joinson, 2001). Anonymous communication allows users to stray from social and cultural norms (Schoenebeck, 2013) which can, therefore, affect the content that is produced. Correa et al. (2015) further examined the complex relationship of anonymity and content in a comparative quantitative content analysis of *Whisper* and Twitter. The study found that individuals on *Whisper* did not only exhibit disinhibiting behavior because of his or her anonymity but also used anonymity to express wants, needs, and wishes. Correa et al.'s (2015) study demonstrates the complexities of anonymous communication specific to two social mediums. Birnholtz, Merola, and Paul (2015) examined the role of anonymity on yet another social media platform, Facebook confession boards (like Yik Yak, a tool popular on some college campuses). These researchers found users willing to ask about taboo or stigmatized topics and, despite characterizations to the contrary, little evidence of cyberbullying or negativity. Omernick and Sood's (2013) case study of a social news site which moved from allowing anonymous comments to disallowing them, however, found more swearing, anger, negative affect, and negative emotion words with anonymous comments than with real identity comments.

Yik Yak has received limited scholarly attention. Northcut (2015) conducted a quantitative study on Yik Yak that explored the percentage of Yaks that are location dependent (i.e., carry meaning that is location specific) and the rhetorical purpose of yaks at a Midwest university, defining four categories for yaks, including shock, joke, inquire, and emote. Northcut (2015) found 20% of the yaks were coded as shock, while 25%-33% were coded as a joke. An additional study of Yik Yak across different college campuses over a 3-day period of time found that nearly half of content featured revolved around campus life and announcements or proclamations (Black, Mezzina, & Thompson, 2016). Quantitative analysis by McKenzie, Adams, and Janowicz (2015) supported these findings and, further, compared how Yik Yak is used relative to Twitter. This research found that the topics addressed on these two platforms differ greatly. Yik Yak was shown to have a greater range of topics, and these topics tended to be more localized and geographically dependent than those found on Twitter. Unsurprisingly for the researchers, Yik Yak was also dominated by themes that matter to young adults.

This research employed exploratory mixed-methods approach that utilizes phenomenology and quantitative techniques in order to explore the question, "How do students use Yik Yak?" Results will offer insight into the experience students have engaging with the platform and the nature of the content generated. This knowledge will allow us to better understand how anonymity and a location-specific user experience, features fundamental to Yik Yak, shape how a platform is employed.

Research Design

An exploratory mixed-methods approach was chosen for this project in order to capture a well-rounded understanding of the phenomenon. According to Creswell (2013), "a mixed methods design is useful to capture the best of both quantitative and qualitative approaches" (p. 22). This analysis of Yik Yak employed two sequential studies. Study 1 sought to qualitatively understand students' experiences with Yik Yak, while Study 2 quantitatively examined Yik Yak content. Creswell (2013) defines this method as a sequential exploratory approach; quantitative data are intended to explain and develop a deeper understanding of the qualitative findings. Together, these studies can more fully explore how and why the Yik Yak social media platform is employed by users.

Study 1

Study 1 asks the question, "How does the student user experience Yik Yak?" To examine ways in which students use Yik Yak, we interviewed students to ask them to self-report their experiences.

Participants for Study 1

Twelve individuals who had experienced using the smartphone application Yik Yak were asked to self-report their

experiences in an interview. Polkinghorne (1989) suggests that phenomenological studies should be conducted using interviews, with anywhere from 5 to 25 separate individuals. Criterion sampling was employed to recruit 12 individuals with experience using Yik Yak. Participants for this study were recruited from general education communication courses at a large Southeastern university. This sample was purposefully chosen so that students from a diverse array of majors and backgrounds were involved in the study.

The ages of the participants varied from 18 to 21 years. There were seven female and five male participants. Students' years in college varied from freshman to senior. Ethnicities of the participants were predominantly Caucasian, but included African American and Hispanic students as well. Students had a wide variety of areas of study, ranging from Biology to Industrial Engineering to Computer Information Sciences. Overall, the interviews lasted 30-40 min per participant, and the researcher did not utilize any follow-up sessions.

Methods of Analysis for Study 1

This transcendental phenomenological study was conducted following Moustakas' (1994) modifications of the Stevick–Colaizzi–Keen method. Open-ended, one-on-one, semi-structured interviews were conducted with the participants. The interviews were audio and video recorded and then transcribed. After the interviews were transcribed, all participants were given pseudonyms. Each participant was asked 10 primary interview questions. Students were asked to describe how they used Yik Yak, describe the experience of reading others' Yaks, describe how they felt when they read yaks that they did or did not agree with, and what the use of Yik Yak meant to each student.

As outlined by Creswell (2013), this process began with the researcher listing all experiences with the phenomenon. Then, those experiences were set aside throughout the data analysis phase to successfully bracket the information so that the focus was on the participants of the study. Next, a list of significant statements was developed, horizonalizing the data, treating each statement as equal. Once the list of significant statements emerged, the final list of "non-repetitive, non-overlapping" statements was created (Creswell, 2013). The statements were then turned into units of meaning or themes, and from these themes, a textural description of what the participants of the study had experienced with the phenomenon using verbatim examples was developed. Next, the researcher wrote a structural description of how the experience happened. The researcher reflected on the setting and context in which the phenomenon was experienced. The last stage of analysis was writing a combined description of both the textural and structural descriptions, therefore describing the overall essence of the phenomenon. According to Creswell (2013), the essence is typically a long paragraph that tells the reader "what" the participant's experiences with

the phenomenon were and "how" they experienced it (i.e., the context). Moustakas (1994) argues that the goal of this synthesis is to successfully illustrate the meanings and essences of the experience.

Results of Study 1

A concise list of all results from Study 1 can be found in Appendix Table 1.

Textural Description

The descriptions of what students experienced were deduced into six themes through the process of horizonalization: information seeking, entertainment, external dissemination of information, and moderating. The theme entertainment also takes into consideration the subtheme of time occupation or the phenomenon that the app is used to procrastinate or take up time by users. Under the theme of moderating, it was found that there was a subtheme of prevention of and reaction to cyberbullying.

Information Seeking. All participants spoke of Yik Yak to seek out information. Particularly during inclement weather, participants spoke of Yik Yak as a primary source for finding details on school delays and cancellations. Another area of information seeking stems from the college environment in which Yik Yak is used—looking for information on meeting times for classes and organizations, class cancellations, or warning incoming students of pop quizzes:

> I primarily use it [Yik Yak] to see what time things are on campus, like when there is a speaker or a concert or a related campus event. If you forget what time something is, everyone is really helpful when you ask.

Students also spoke of the spread of information that can unite the student body, such as wearing the school's color on a specific day when rallying together over a student who had passed away. One student said that they like to watch out for sales that are going on at local restaurants or stores, or "where the puppies are" when others are walking their dogs on campus or a student organization is having a stress-relief event that brings animals to campus for students to play with.

Entertainment. Another primary use of the app for students is to seek entertainment. Every one of my participants said that they "enjoy the humor," are "looking for a laugh," "upvote clever and witty comments," or "like the relatable, funny ones [yaks]." Topics considered humorous that get a fair amount of attention in the app, according to participants, were relationships, dining hall food, jokes about football games, relatable college experiences and throwback jokes, or jokes that bring out nostalgia from childhood relating to toys, food, popular television shows, and so on:

Most of the time you can see some amusing stuff, and sometimes I'll think of something funny that I want to share to a greater audience than my Twitter followers. I try to keep it clean and not offensive because I feel like some people hide behind the anonymity of the app and call out other groups or specific individuals.

A recurring topic was Yaks that were "relatable," generally meaning that users are making humorous statements about situations that everyone might go through or can relate to:

When I participate, I usually will try to answer someone's question, ask a question myself, or say something that I think is funny, specifically something that related to my own life. For example, my most upliked Yak was "Struggle as a class, fail as a class, get a large curve as a class." Obviously, people will enjoy things they relate to so that's what I'll yak.

Time Occupation. All participants said they used Yik Yak as a "time killer," as a means to "procrastinate," when they are "bored," to "occupy time," or "when class is boring." Many mentioned scrolling through Yik Yak during times such as waiting for a teacher to start class, at dining halls, or when procrastinating from doing homework. Several also mentioned that they scroll through Yik Yak right before bed to fall asleep.

External Dissemination of Information. Many participants spoke about taking a picture of the screen with their phone, or taking a screenshot, of Yaks that they thought were particularly relatable. A screenshot is generally taken on a smartphone by holding down two buttons in unison, such as the home button and the lock button on the iPhone. They do this so that they can either show it to friends or send it to them in a text message. This phenomenon gains complexities when the message in a Yak is directed at a specific person and a group of friends come together to try to figure out who the subject of the Yak is:

I like to screenshot the funny ones. When I find ones that are relevant to friends or people I know, I will screenshot them and send them to them in a text or in a GroupMe chat. It is especially funny when you think one [a Yak] was about a person so you send it to them to see.

Some participants reported that when they thought they were the subject of a Yak that they liked the attention, depending on the context, while others reported that it was embarrassing to be on Yik Yak at all.

Moderation. All 12 participants described the urge to serve as a moderator of the content that appears on Yik Yak. When a yak is posted, it can get upvotes to gain popularity or downvotes to lose it. Once a yak receives five downvotes, it is removed from the app and the list of recent yaks. Participants spoke about feeling the need to downvote content they find "annoying," "insensitive," "ignorant," "crude," and "downright mean":

It really brings up red flags as to the people who surround you everyday. When a yak makes me angry, I will often downvote it and comment on it, but I try not to get involved in any arguments or attacks. I usually just post "be careful of what you say" or something like that.

Other students mentioned that racial and religious debates on Yik Yak are often unproductive, and if there is a dissenting opinion, it often gets downvoted "into oblivion," making it hard for everybody's voice to be heard. Certain participants specifically spoke of the frustration when that happens and feelings of helplessness:

When I see something that makes me really mad, particularly, like, ignorant jokes about race or the gay community, or people trying to shove religion down your throat, it has gotten to the point where I don't bother trying because I know what I say will be downvoted, so I just exit out of the app instead and cool off.

Another aspect of moderating stems from an issue of originality—many participants stated that there are repetitive posts on Yik Yak, or content that is stolen from another source, such as Reddit. Many reported that when they have seen something before on Yik Yak, if they see it again they downvote it because they know the person is copying from an original poster or an "OP," a term which is used frequently in comments on Yik Yak to refer back to the individual who originally posted the yak. Another phenomenon that participants frequently spoke of was the "−4." Once a yak has five downvotes, it is removed from the app. Because of this, many participants felt that it was their personal responsibility to extinguish yaks forever by being the fifth person to downvote them or, in converse, save them by upvoting and changing the number of downvotes to "−3" and hoping that others will do the same.

Cyberbullying. A last major theme spoken about by participants is cyberbullying. While only about half of participants used that specific word, all the participants spoke of cruel comments made within the app and how certain individuals can be singled out. Participants stated that they thought people who posted on Yik Yak about others who had an accident like falling down the stairs or throwing up in public was demeaning and making the humiliation even more public, albeit anonymously:

Sometimes you'll see things that are offensive and you'll be surprised at how many people upvoted the Yak instead of downvoting them, and those are usually racially charged.

Participants also spoke about how, especially when "out" at a party or a bar, people will post particularly hurtful things on Yik Yak using the actual names of people and that certain individuals have unfortunately become "memes" in the campus community because everyone posts about them. While participants cited very specific examples, direct quotes were

not included here to protect the identities of participants and potentially those in the surrounding college community.

Structural Description

The structural description of the "how" or the context of students' experience with Yik Yak included three major context-specific locations: in the classroom, in the dorm room or apartment, or out on the town or at a party-type social situation. It is worth mentioning that a smartphone, Internet-enabled mp3 player or tablet running Apple's iOS, or a version of Android software was required to experience this phenomenon. Specifically, students have been using location-aware smartphones to post to the app, and the availability and access to a smartphone would play a major role in one's ability to participate in the online, in-app community of Yik Yak.

In the Classroom. All 12 participants noted that they ultimately use Yik Yak in the context of the university, specifically in the classroom. Many of the students spoke about utilizing the app when they arrive to class early or are waiting for a teacher to arrive. One student specifically mentioned which class they like to use it in, and another mentioned that you frequently see students utilizing the app at dining halls on campus.

In the Dorm Room. The dorm room or campus apartment was another common context in which to use Yik Yak among participants interviewed. Everyone cited roommates and friends as those they talk to about Yik Yak on campus and particularly like to share humorous ones with each other.

Out on the Town. Partying culture and students has always been a large topic at universities, and many students spoke on how Yik Yak perpetuates that. Because of its anonymous nature, participants stated that people were not afraid to post the location of parties. A common theme would be to exchange Snapchat or Kik usernames so that there could be a private conversation about where the location of the party or gathering was. Because the service is location-based, participants also stated that they liked to use Yik Yak to see what was going on at certain places, like if a "certain bar was dead" or if there were any specials at restaurants that weren't advertised elsewhere.

The Essence of Student Experience With Yik Yak

By combining both the textural and structural descriptions of users' experience of Yik Yak, it can be concluded that all Yik Yak users go through the themes of information seeking, entertainment, external dissemination of information, and moderating. Under the themes of entertainment and moderating, it was found that there were subthemes of time occupation and prevention of and reaction to cyberbullying, respectively. As far as how the student participants experience Yik Yak, location-aware smartphones or Internet-enabled tablets/mp3 players are a requirement for downloading and using the application, as well as three central themes of context: in the classroom, in the dorm room, or out on the town. These locations are primarily where students engage with the app, and the way in which they engage generally falls under one or more of the aforementioned themes. Generally students seek information or humor in using the app, particularly while trying to kill time, but the use of the app could result in the moderation of content or screen capturing and sending "relevant" posts to friends via text messages or email messages outside of the app.

Discussion of Study 1

The results of this study suggest that Yik Yak serves as an anonymous forum for public discussion on college campus. Study 1 findings initially support those of McKenzie et al. (2015) in that users reported engaging on topics that are predominantly specific to their campus location as opposed to, for instance, discussing national or international politics. It has been suggested that Yik Yak is a platform that is used for cyberbullying (Whittaker & Kowalski, 2015). Participants of this study acknowledged that while they primarily use Yik Yak to look for entertaining, witty, or relatable quotes and comments while killing time, there may be other users who engage in cyberbullying and other hateful speech, particularly in regard to religion and race. It is important to take the voices of users into consideration when considering such messages on Yik Yak. When reflecting on these qualitative results, it is also important to recall that these experiences are both self-reported and originate with students at a single university, hence the importance of gathering content-related data from many universities to explore what additional information quantitative data may indicate and whether this differs from the experiences expressed by users.

Study 2

While Study 1 focused on how students self-reported using Yik Yak, Study 2 employed content analysis of yaks from 24 different schools. The purpose of Study 2 was to further explore student experiences with Yik Yak by examining the nature of the content posted on the platform and triangulating these results with the results of Study 1. The combination of quantitative results with the qualitative findings of Study 1 offers more complete insight into this unique anonymous social media platform. It should be noted that before undertaking Study 2, the researchers attempted to set aside, or bracket, the results of Study 1. Data analysis for Study 2 was done with no a priori assumptions about how the data should be interpreted. As Jick (1979) contends, "triangulation may also help uncover the deviant or off-quadrant dimension of a phenomenon" (p. 609).

Study 2 explored the following research questions:

RQ1. What types of messages (yaks) appear most often in both the "hot" and the "new" bulletins on the social media platform Yik Yak?

RQ2. What differences, if any, exist between the "hot" and the "new" bulletins on the social media platform Yik Yak?

Sample of Study 2

The sample institutions were chosen from US News & World Report's 2014 rankings of best colleges and universities (Best College Rankings and Lists, 2014). Every ninth school was chosen from the top 50 national universities and the top 50 liberal arts colleges to produce a sample that had 12 colleges from each list. Every ninth school was chosen as opposed to every tenth because it resulted in a more diverse sample, as when every tenth school was chosen, our sample was limited because 9 of the 12 national universities were in California. An additional requirement for inclusion in the sample was an active Yik Yak feed that could be read and collected via the "peek" feature of the app.

Procedure of Study 2

Content analysis is used for classifying large amounts of data in order to find meaning (Krippendorf, 2013). In all, 10 yaks from the "new" bulletin and 10 yaks from the "hot" bulletin were collected using the "peek" feature in the app. Researchers collected screen captures from the feeds of the 24 different schools using smartphones on Monday, Wednesday, and Friday every other week for a 6-week period. Yaks were collected at 10 a.m., 3 p.m., or 9 p.m. each week and rotated to ensure that at the end of the data collection period, yaks were collected once at each time on each day. This sampling method allowed for a maximum sample size of 4,320. It should be noted, however, that in the process of taking screenshots some yaks were only partially recorded. In cases where a yak could not be seen in its entirety, it was removed from the data set (often first or last yak in the sampling attempt would be cut off by the screenshot). This resulted in a total final sample of 3,903, of which 1,985 yaks were from the "new" bulletin and 1918 yaks from the "hot" bulletin.

Due to the nature of this study as an exploratory mixed-methods study, with the goal of triangulation, once the yaks were collected the researchers created a codebook through open coding (Flick, 2008). Per Flick, open coding enables a researcher not only to break down and understand a text but also to develop categories to which those texts can be assigned. Open coding is the process by which "similar events and incidents are labeled and grouped to form categories" (Strauss & Corbin, 1990, p. 74). This process is not meant to be used for large narratives and blocks of text, but rather it is meant to be used for smaller units such as

sentences and should result in codes and categories (Flick, 2008). Open coding was an appropriate choice for this study because our unit of measurement, the yak, is limited to 200 characters. Due to this limit, yaks are often only one or two sentences, like that of a "tweet" on Twitter. Previous coding schemes for anonymous social media content analyses were deemed unfit for various reasons. Correa et al.'s (2015) coding scheme was based on condensed categories available for users to post under in anonymous app *Whisper*, and because Yik Yak has no preset categories, such codes would not have been fitting or useful for this study. In Northcut's (2015) content analysis, coders had difficulty reaching consensus on categorizing yaks, so it was decided among researchers that it would be best for a new coding scheme to be developed.

To perform open coding, we began with the categories that emerged from Study 1. However, many yaks could not accurately be placed into the initial categories. Due to this, we began emergent coding, separating the yaks into exhaustive, clearly defined groups, based on the perceived intent of the yak author. As researchers methodically categorized yaks, different categories and meanings began to emerge. Researchers then discussed differences and definitions of each category until we had a comprehensive codebook and reached saturation, a point where all yaks could clearly fit into a single category. The codebook included clear definitions as well as multiple examples of yaks from each of the seven different categories. The descriptions of the categories and a few examples from this study can be found in Appendix Table 2.

After the codebook was completed, two researchers coded a random subsample of 200 yaks to test for intercoder reliability. Yaks were only coded into one category, as the codebook was exhaustive. These codes, totaling 400, where then brought into SPSS software and compared for reliability, finding a Cohen's κ value of .90, which has been previously reported as above acceptable values (Lombard, Snyder-Duch, & Bracken, 2002). The remaining sample of yaks on both bulletins was divided evenly between two researchers for coding. The yaks on the "new" ($n=2,160$) bulletin and the yaks on the "hot" bulletin ($n=2,160$) were coded on separate spreadsheets, and the yaks from the national universities ($n=1080$) and the yaks from liberal arts colleges ($n=1080$) were kept separate within each spreadsheet.

Results of Study 2

The total number of yaks for each category recorded for both the "new" and "hot" bulletins can be seen in Appendix Figure 1. We observed significant differences between categories employed in the new bulletin relative to the hot bulletin, $\chi^2(14) = 4,125.74$, $p < .01$. Information sharing was the most commonly employed category of yak comprising nearly 39% of all new yaks. This category was less popular on the hot bulletin but still comprised nearly 24% of these yaks. The second most common category of yak was the lament category which comprised just over 18% of all new yaks. This

category was also less common in the hot bulletin, making up about 13% of these yaks. Humor yaks comprised roughly 15% of all new yaks but were relatively more common on the hot list, comprising over 28% of these yaks. The relatable category also had a disproportionate representation on the hot list, making up 11% of all new yaks but more than 18% of the hot bulletin. The context-specific, grievance, and trending topics categories each represented at or below 10% of both the new and hot yaks.

Discussion of Study 2

The results of this content analysis allow us to better understand how Yik Yak is being used around a sample of college campuses. The categories identified in the quantitative results generally confirm the qualitative findings, with some possible discrepancies. Given the wide range of themes identified and the location-specific nature of many yaks, Study 2's findings reinforce those from Study 1 in supporting previous research by McKenzie et al. (2015). Users were not discussing cultural or political issues as they might on other social media platforms, but engaging on a wide range of topics specifically important to their campus community and to individuals of a similar age.

Students seem to be employing the platform for entertainment, as they reported, both through humorous and relatable posts as found in the content analysis. Other research has indicated other platforms, such as Twitter and Facebook, are commonly used for humor. Carr, Schrock, and Dauterman (2009) found in a content analysis of students' Facebook and Myspace posts that humor was used 20% of the time, similar to the results of this study. Other research has looked at humor in the context of breaking news on Twitter. Highfield (2015) found that individuals use tweets to modify and appropriate punchlines of jokes in attempts to receive increased attention and to create new jokes, raising questions of authorship and attribution, a phenomenon which may also carry over to Yik Yak.

The use of Yik Yak for information seeking and sharing was also supported through yaks found in the content analysis. Additionally, the interviewees from Study 1 reporting acting as moderators of posts containing objectionable content, including cyberbulling, were partially supported in Study 2. No content that could be construed as cyberbullying (i.e., directly targeting an individual by name, rude or hateful remarks directed an individual, etc.) was identified in any university's "hot" list explored. However, those yaks classified in the context-specific category could have been aggressive or akin to bullying in nature, but because they were outside of the researchers' frame of reference and realm of understanding, they were not coded as such. The quantitative findings also identified ways in which Yik Yak seems to be utilized which were not previously discussed by users. Yik Yak seems to be a tool for students to express grievances or to lament issues they have with both the personal life and the campus community. Together, these yaks accounted for 22% of all new posts, yet this type of use was not addressed by the participants in the interview data.

It is notable that information sharing was the most popular category on the new list and still prevalent on the hot list. This suggests that Yik Yak serves as a platform for community building because students upvoted Yaks seeking or giving information to move them higher up on the feed for others to see and engage with. This aligns with other research that claims Yik Yak is "benign" for college students, unlike media portrayals (Black et al., 2016). Another notable difference on the hot versus the new list is the prevalence of yaks that fall into the humor category. Humor only comprised 15% of new yaks but comprised 28% of hot yaks. This suggests that students are more likely to respond positively to a yak intended to entertain than they are to a yak in any other categories. These results, while similar to previous findings, provide a more in-depth look at why and how students engage with Yik Yak, in terms of their lived experiences and content found within the app. Similar to Northcut's (2015) reports of 25%-33% of yaks coded as a joke, this study reports up to 28% of yaks as humor. However, unlike previous studies, this content analysis offers greater depth and breadth in what content is posted in the app, as well as what has greater salience in measuring the differences between the "new" and the "hot" yak feeds.

Conclusion

The combined results from Studies 1 and 2 facilitate a better understanding of the role Yik Yak plays on college campuses. Although both media (Bailey, 2014; Glum, 2014; Mahler, 2015; Shontell, 2015) and student respondents in Study 1 reported the existence of cyberbullying on Yik Yak, no example was identified in the quantitative data examined in Study 2. Because cyberbullying and deviant behavior were mentioned among interview participants frequently in Study 1, it is most likely that some yaks were miscoded due to misinterpretation or coded into the "context-specific" category. Location is an inherent factor to understand the context of the posts made on Yik Yak (Northcut, 2015), making coding the intent of a user when posting challenging. Conversely, the lack of cyberbullying yaks in the data set of Study 2 suggests that many students are not endorsing the activity and utilizing the "downvote" feature of the app, just as they reported in Study 1. Furthermore, this disconnect could indicate larger social misconceptions of Yik Yak. It is possible that students who have not truly witnessed much cyberbullying on Yik Yak, if any at all, assume that greater amounts of cyberbullying exists because of portrayals in the popular media. Yik Yak is the first anonymous social media platform that allows users to regulate the content feed as opposed to just interact with it or view it. Even though users had the ability to endorse acts of cyberbullying without consequence, it seems they may still be reframing from doing so and may, in fact, be actively downvoting such content.

The most commonly endorsed yaks were humor and information sharing and seeking, suggesting that Yik Yak serves as a source of entertainment for college students as well as a platform for campus community building, which aligns with the self-reported use of Yik Yak in Study 1. The role of "moderation" as described by participants in Study 1 also explains the differences in the content of the "new" and "hot" feeds found in Study 2. Those yaks that are moderated and upvoted make it to the "hot" feed, while those that get downvoted or no attention cease to exist. The only theme found in Study 1 that cannot be explored in Study 2 is that of "external dissemination of information"—there is no way of considering how yaks are being shared outside of the app in a content analysis.

While not specifically mentioned by Study 1 participants, the use of a lament or grievance, as found in Study 2, provides social support for individuals, which strengthens the effect of campus community building. Chen (2004) indicates that for students to have a strong sense of community on a college campus, they need an open environment where free expressions are encouraged and individuality is accepted and respected. Yik Yak may serve as the platform to provide this environment to college students. Future research should look further at the concept of social support on Yik Yak and specifically how it aids in campus community building.

In addition to the need for social support, because Yik Yak users feel free to complain on the app it raises questions on the idea of perceived anonymity. Drawing from Scott's (1998) definition of anonymity, which considers perceived anonymity as a spectrum, Yik Yak users feel that there is enough anonymity afforded by the app to disclose complaints, grievances, and laments without fear of self-presentational concerns. Rains and Scott (2007) posit that anonymity allows individuals to focus more on the content of a discussion rather than the identities of individual contributors. This could be explained by Walther and Parks' (2002) idea of "cues filtered out" during computer-mediated communication, in conjunction with social identity/deindividuation (SIDE) (Spears & Lea, 1992), concepts that explain communication without nonverbal cues promotes greater group identification. Because student users of Yik Yak feel like they are a part of a community on the app, they follow the group's social and communicative norms—habits that were formed because of the pseudo-anonymity provided by the app.

Limitations and Future Research

While this study took a triangulated approach to minimize drawbacks, it recognizes limitations are associated with any study. For this research, specifically, Study 1 was conducted with participants at one Southeastern university, so the demographics represent the population of this university, and uses and perceptions of Yik Yak may vary from school to school. While Study 2 utilized a diverse sample of yaks, future quantitative research could focus on collecting a more diverse, far-reaching sample to understand Yik Yak culture at varying universities. Additionally, the data collection for both Studies 1 and 2 was cross-sectional in nature, and longitudinal data collection, outside the span of 6 weeks, could paint a fuller picture of what content can be found within the app. One other major limitation of our method of data collection was the timing of collecting screen captures of yaks for different schools' feeds. None of the times of data collected represented any "late night" talk that may happen within the app, potentially excluding provocative data.

This study also recommends several directions for future research. Yik Yak has recently added a function that allows users to upload photos to the app, which adds complexity to the app and could put it into a visual category with apps like Snapchat. Another feature recently added by the app is the ability to create a handle, or username, and either turn that function "on" or "off," affording users the ability to be anonymous or pseudo-anonymous at their discretion. These new features of the app provide areas for future research to consider. Another avenue for potential research is further exploring the role of the theme of "moderation" of other users on Yik Yak, found in Study 1. Participants in Study 1 reported that they would downvote undesirable content. Therefore, cyberbullies may avoid Yik Yak because of its self-regulating nature and understanding that their attempts may backfire. To further understand this phenomenon, future research could look at other anonymous platforms to explore the presence of cyberbullying, which would aid in understanding if the upvote/downvote system of Yik Yak plays a role in the decision to post certain types of content.

Yik Yak combines anonymity and a location-based user experience in a unique way relative to other major social media platforms. This study has attempted to explore and understand the Yik Yak user experience and user-generated content so that we can better understand how these features interact. After 3 years of consistent growth, Yik Yak has seen declines (Mannes, 2016). Only time will tell whether there is a permanent place in the online eco-system for this specific platform. Regardless of the Yik Yak's future, however, the affordances which have made it popular will continue to be important to understanding how we use and engage with social media.

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Appendix

Table 1. Phenomenological results from Study 1.

Textural	
Information seeking	". . . to see what time things are on campus, like when there is a speaker or a concert or a related campus event. If you forget what time something is, everyone is really helpful when you ask."
Entertainment	"When I participate, I usually will try to answer someone's question, ask a question myself, or say something that I think is funny, specifically something that related to my own life. For example, my most upliked Yak was 'Struggle as a class, fail as a class, get a large curve as a class'. Obviously, people will enjoy things they relate to so that's what I'll Yak."
Time occupation	All participants said they used Yik Yak as a "time killer," as a means to "procrastinate," when they are "bored," to "occupy time," or "when class is boring"
External dissemination	"I like to screenshot the funny ones. When I find ones that are relevant to friends or people I know, I will screenshot them and send them to them in a text or in a GroupMe chat. It is especially funny when you think one [a Yak] was about a person so you send it to them to see."
Moderation	"It really brings up red flags as to the people who surround you everyday. When a Yak makes me angry, I will often downvote it and comment on it, but I try not to get involved in any arguments or attacks. I usually just post 'be careful of what you say' or something like that."
Cyberbullying	"Sometimes you'll see things that are offensive and you'll be surprised at how many people upvoted the Yak instead of downvoting them, and those are usually racially charged."
Structural	
In the classroom	"I have an Econ [economics] class that is really boring, so I like to scroll through it under my desk during that lecture. I will also scroll through it in other classes when I'm waiting for the teacher to get there, or just in between classes."
In the dorm room	"My roommates and I all look over it before bed. We just lay there and scroll, and when one of us finds one [a Yak] that is funny or relevant, we read it out loud and all laugh about it together."
Out on the town	"I like to look and see if anyone has mentioned any parties or specials that are happening at other bars. It's also funny to see who is Yaking downtown to see if my friends and I can find them or have seen them or the situation the Yak is describing."

Table 2. Open codes for Yik Yak content analysis.

| Primary code	Description and example
Context specific	*Context Specific* yaks focused on inside community jargon, comments about a specific situation that is not easily interpreted or understood by someone from outside the community, thus making it hard to determine the yak's intent. Examples from this category include "#nobluecrossblueshieldbabies" and "Follow the buzzards."
Information sharing	*Information sharing* yaks included the seeking and giving of information about anything, such as local events, current situations, and lost and found. Examples from this category are "Holy shit some guy went postal in southern MO . . . 9 people dead in 4 different houses and they are still finding bodies. . . bad day at blackrock," "Does anyone have a charger?," and "32 treebook lane, partys on."
Lament	*Lament* yaks are complaints and grievances about personal life and individual situations. Emojis, hashtags, and capitalization are taken into consideration when determining the tone of the yak. Examples in this category include "Losing the perfect girlfriend just because she is too busy to date is the worst feeling in the world and so hard to get over," and "No girls wanna cuddle?;("
Grievances	*Grievances* yaks included complaints that are administration or school community specific. Examples in this category are "Whenever Albion says they're fixing the internet, they make it worse . . .," and "I feel like prospective students were misled regarding the wifi."
Relatable	*Relatable* yaks are statements that aren't necessarily humor but made to relate to people going through certain or similar situations. Examples in this category are "Shoutout to everyone pulling all nighters," and "When you open yik yak but then close it because it was the last app you procrastinated on and there's nothing new."
Humorous	*Humorous* yaks are statements made in an attempt to be funny. The use of "haha" or "lol" and the like denotes use of attempted humor. Examples in this category are "To the window, to the wall. To my 8 am I crawl," and "You can call me Nemo because I'm never afraid to touch the butt."
Trending topics	*Trending topics* are yaks that refer to social media or news buzz surrounding current events. Examples in this category are "What color is the dress?" and "RIP to the three students at UNC. I'm sorry the media won't cover it because of your religion and that a white man pulled the trigger."
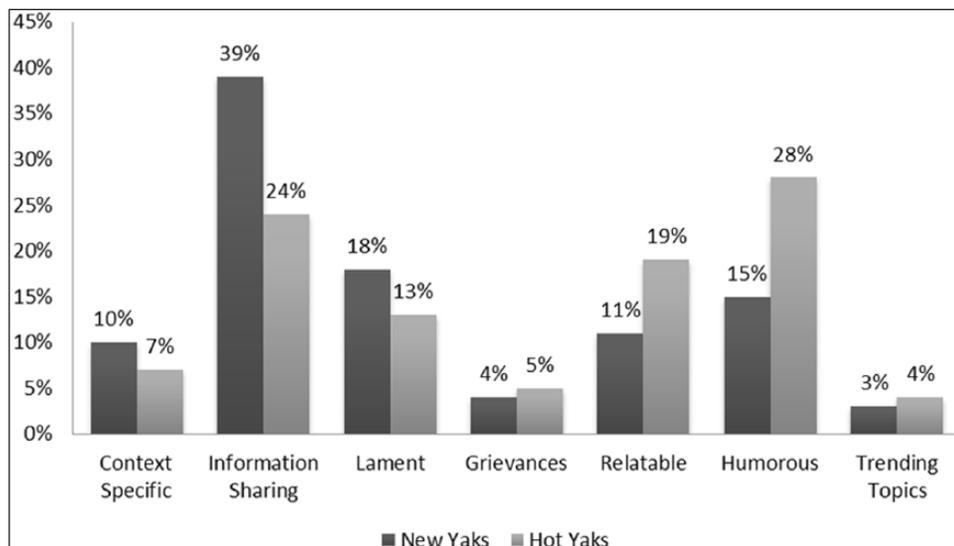
Figure 1. Results of Study 2: Distribution of "hot" and "new" yaks.
It illustrates the differences in percentages among the two different feeds studied and the categories of yaks.