

#BlackLivesMatter: A content analysis of top engineering institutions' responses to social-political activism

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Abstract

As members of both an educational institution and the society at large, it's safe to assume that what happens to Black people in society directly impacts what happens to Black engineering students. Due to a turn of events surrounding Black Americans encounters with law enforcement, Black Lives Matter (BLM) --a movement of social-political activism that emerged in 2013-- has seen a burst of activity. Following George Floyd, Ahmaud Arbery, and Breonna Taylor's death, this movement has prompted a drastic increase in statements released by corporations and educational institutions-- some of which include Colleges of Engineering. There is very little insight into how engineering colleges communicate their influence in social and political movements. Utilizing "movement framing" as a lens, this study conducts a content analysis to explore educational institutions' and leaders' responses to race-based events that have gotten national attention from the end of May through July 2020. Specifically, we will take a closer look at messages published and retweeted on engineering departments' Twitter accounts. This paper addresses the following research question, '*What messages do top institutions awarding bachelor's degrees to African Americans provide to the public in response to the Black Lives Matter movement on Twitter between May 31 and June 17?*' The findings will provide insight into engineering departments' utilization of messaging in social-political matters that impact the students they serve.

Keywords

Black Lives Matter, Movement Framing, Sociopolitical Issues

Introduction

There is a historical tradition of Black students expressing their concerns for sociopolitical issues in higher education within the US. For instance, in the 1950s, the Civil Rights Movement called for mass mobilizations and non-violent direct action. In response, federal legislation was designed to address a significant number of disadvantages in Black communities. This legislation included, but is not limited to, the Civil Rights Acts of 1964, the Economic Opportunity Act of 1964, and the Higher Education Act of 1965 (Loss, 2011). Due to this legislation, colleges and universities that were exclusive of Black students in the US, began to enroll Black students for the very first time. Furthermore, higher education implemented affirmative action plans to expand recruitment efforts of racially minoritized groups, especially Black students, to address demographic shifts and resulting changes to campus climates. However, implementing these initiatives may not have been enough given that few institutions have taken decisive action toward eliminating academic violence in higher education (Ballard, 2004; Bishop, 2017). Bishop (2017) defined academic violence as "ways marginalized people both in and outside of formal systems of schooling have had their lives limited and ended due to white supremacy" (p. 711). Radical movements influenced students in U.S. institutions in the mid-1960s, such as the Black Power Movement, the Chicana/o Movement, and the Puerto Rican Nationalist Movement (Morgan, 2019). According to Rogers (2012), campus activism intensified to address concerns that mattered to Black students and U.S. education institutions were radically reconstituted to address these concerns.

Contemporary, there is a more significant push for U.S. institutions and their administrators to establish inclusive campuses while also addressing an oppressive environment (Lockard, Baker and Blisset, 2019). Morgan (2019) has highlighted how administrators' responsibility includes creating public spheres that provide opportunities for students to become active and engaged participants in their communities. Social media has been proven a helpful mechanism to disseminate plans and establish a sense of community on college campuses. There is much research on student activism, but there is not much insight into the role of institutions in the U.S. in social-political movements of today, such as Black Lives Matter. First, we will provide an overview of the Black Lives Matter Movement (BLM) and discuss higher education's utilization of social media. Following, we will discuss the utilization of a "movement framing" theory and the methodology for which tweets were collected for this study. Then, we will provide insight into each institution's findings and compare across institution to discuss implications for administrators in higher education.

Overview of Black Lives Matter movement

The BLM movement first appeared on Facebook in response to Trayvon Martin's death and the acquittal of his murderer. Since then, BLM has made a widely known presence in platforms centered around American culture. According to Hailu and Sarubbi (2019), "the BLM Global Network is a chapter-based, member-led organization whose mission is to build local power and to intervene in violence inflicted on Black communities by the state and vigilantes." The movement's message framing to the public is multifunctional: advocating for different genders and sexual orientations but it always centers Black liberation. Leaders of BLM emphasize, "The call for Black lives to matter is a rallying cry for ALL Black lives striving for liberation" (Garza, Cullors & Tometi, 2019). Their framing of the movement is an open call and invites the public to consider Black bodies' challenges. The rallying call of BLM has challenged a wide range of public infrastructure (e.g., police violence, workforce racial inequality, healthcare and education).

Subsequently, BLM's presence has raised essential considerations for higher education and how they interact with the communities they serve at large. The movement's framing provides a message pushes the wider public to decide how they will interact with BLM. The public's interaction with a campaign via social media is of broader importance because it is one process, among many, that shapes a movement's development and outcomes. This work-in-progress paper explores higher education's interaction with an emergent social movement by studying how institutions use phrases associated with BLM on Twitter. Specifically, taking a critical look at the #BlackLivesMatter, related hashtags, and resources that appear in messages when institutions refer to BLM. This exploratory study will help understand how institutions associated the words that describe this social movement with other activities, thus adding and extending the movement's original meaning.

The Presence of Black Lives Matter on Social Media

Following Trayvon Martin's death, countless more Black lives were taken at the hands of police officers. Maqbool (2020) stated that "if calls for justice for Trayvon Martin lit the spark for Black Lives Matter, it was the death of Michael Brown a year later that brought the movement to national attention." BLM became a slogan chanted by thousands around the world. As people gathered physically for protest, there was also a massive virtual movement on social media platforms. BLM became a network of grassroots organizations and a moral collective of

activists who could no longer stand for this injustice. The names associated with BLM are the victims of police brutality that draw attention to the massive racism issues in America. George Floyd, Breonna Taylor, Ahmaud Arbery, Tony McDade, Rayshard Brooks, Dion Johnson, Eric Garner, Michael Brown, Sandra Bland, and the list continues as #BlackLivesMatter pushes us all to say their names.

The decentralized approach of this movement and organization is intentional (Maqbool, 2020). In new reports, Professor Abdulla stated that “group-centered leadership is in [their] guiding principles.” Further saying, “leadership is not just about oratory; it is also about facilitation, planning, bringing arts to the movement, things that don’t get as much recognition.” They study and utilize practices of great organizers that believed these movements should be more significant than individuals. As unlawful deaths continue to happen, more names are added, allowing room for tremendous momentum.

On May 25th, 2020, George Floyd’s death took the movement to areas it had not reached before. George was arrested for attempting to use a counterfeit twenty-dollar bill to purchase cigarettes. During the arrest, Derek Chauvin restrained George by placing his knee on his neck. Despite George yelling that he was unable to breathe, Derek continued to restrain George in that uncomfortable position for 8 minutes and 46 seconds, during which he became unresponsive and stopped breathing (Hill et al. 2020; Furber et al. 2020; State of Minnesota 2020). Despite being in a global pandemic, news of the killing sparked an immediate protest of policing behavior, with the first protest taking place in Minneapolis and sparked protest throughout the world. Gaining national attention, large corporations and institutions globally began to release statements and allocate resources to make stances that Black Lives should and will matter worldwide. They back up these calls to action by stating how their organization will push BLM forward.

The internet and social media became the key mechanism for communicating stances on BLM and supporting Black students on campus. Individuals and institutions in various social sectors participated in activist-oriented discourse online by emailing, posting, tweeting, retweeting, favoriting, bookmarking, and liking BLM statements. This discourse centered on Black bodies while encouraging individuals to evaluate their racist resistance to acknowledging the lives of Black individuals (Beckman 2021). Following the murder of George Floyd, the #BlackLivesMatter hashtag reached its highest peak of over 8 million on Twitter (Figure 1). This study explores how educational institutions situated themselves on Twitter amidst this large social movement.

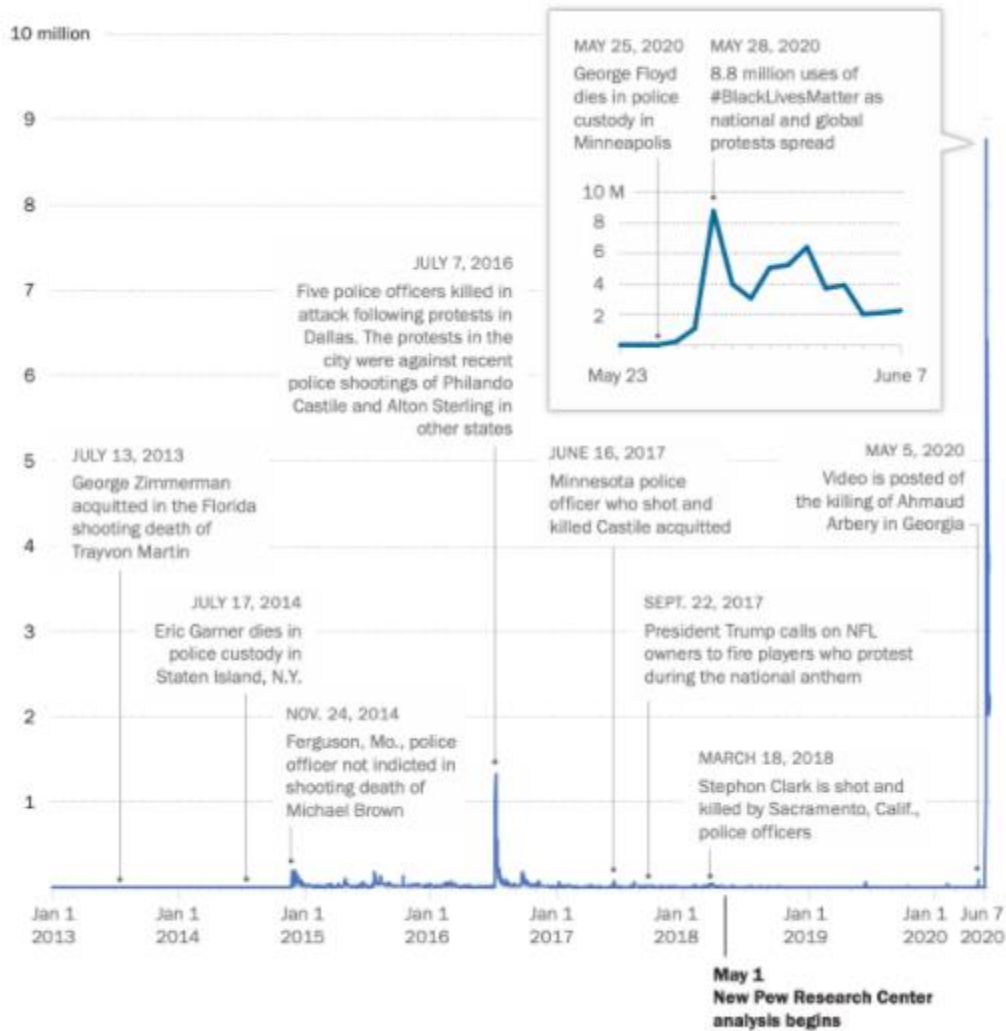


Figure 1. Trends of #BlackLivesMatter Tweets

Note. Number of public Twitter posts mentioning the #BlackLivesMatter hashtag January 1, 2013-June 2, 2020. From *#BlackLivesMatter surges on Twitter after George Floyd's death* by M. Anderson, M. Barthel, A. Perrin and E. A. Vogels, 2020. (<https://www.pewresearch.org/fact-tank/2020/06/10/blacklivesmatter-surges-on-twitter-after-george-floyds-death/>).

Higher Education uses of Twitter

Research on the use of social media in education over the last decade has flourished. It appears that institutions' uses of Twitter vary in scope and range. For instance, the functions of Twitter use for institutions include news platform, recruitment resource, and/or public relations device (Kimmons et al. 2017). Most institutional university communications on Twitter are one-way messages to disseminate information from the institution (Linvill et al. 2012). For example, one study analyzed the top 100 schools' tweeting habits sampled from the U.S. News & World Report rankings and found that Twitter's most widespread institutional use is a news, event, and announcement platform (Herrmann 2010).

Researchers have also reported on how institutions use Twitter as a public relations tool. Twitter's widespread use and conversational nature allow institutions to utilize Twitter as an ideal public relations tool to engage with their communities (Waters et al. 2011). Szymańska (2003) asserted that the primary goal of public relations in higher education institutions is to create a positive image of them in the social and economic environment. Twitter is one of the most popular social media tools used to accomplish this goal. The internet and social media have made it easier to investigate how institutions and engineering departments respond to social-political activism. This paper will utilize a social framing theory to focus on institutions' efforts to position themselves during the BLM movement.

Purpose and Research Question

The purpose of this paper is to explore top institutional responses to BLM, in the US, that award bachelor's degrees to African Americans. By utilizing a movement framing lens and content analysis method we collected and analyzed tweets during May 31 through June 17. These dates are representative of responses to BLM following the death of George Floyd, and inclusive of celebrating Juneteenth and responses related to racial disparities and injustices. The central research question is, '*What messages do top institutions awarding bachelor's degrees to African Americans provide to the public in response to the BLM movement on Twitter between May 31 and June 17?*'

Theoretical Framework

A fundamental concept within social movements is that they frame social issues (McAdam 1996; Miller 2000; Sewell 2001), which means that they engage in the process of meaning construction that allows audiences within the movement to understand a social situation in a specific way (Ince et al. 2017). The term "movement frame" was introduced into the literature on social movements by Snow et al. (1986), who wished to provide a language to discuss how activists interpret problems and are motivated to act. Movement framing typically involves a solution that activists think will address the situation and a call to action. The interaction of the wider public and the movement via its frame is critical for social change studies since the success of campaigns often hinges on how the broader public perceives the movement, its demands, and its proposed policy solutions. The "movement framing" theory aids in analyzing the tweets produced and reshared by public educational institutions.

Method

A content analysis of university tweets was conducted. Content analysis is a research method used to make replicable and valid inferences by interpreting and coding textual, visual and audio data (Stemler, 2015). The sample institutions were chosen from the top six institutions awarding bachelor's degrees to African Americans (ASEE, 2019). Engineering fields typically have challenges in recruiting and retaining African Americans. We found it helpful to research institutions that produce the most significant number of Black engineers in 2019. The data found in this study can be compared to the institutions that have these challenges in recruitment and retention for future work. University's messaging on social media are not the primary median for statements surrounding Black Lives Matter, but it will provide insight into support for Black communities who are minoritized in higher education settings.

Also due to limitations of time, we collected tweets from the top five institutions with a Twitter account presence during the time of data collection (excluding one of the top six institutions). Initially, the results for University of Maryland, Baltimore County (UMBC) and University of Maryland, College Park (UMCP) were considered the same university because it was not evident that Baltimore Country had its own Twitter account. However, after incorporating meaningful feedback we were made aware that these institutions were vastly distinct and unique in their own ways. The insights from this study would not do each institution justice if the results were merged. Due to time constrains, we were not able to collect data for UMBC alone, so the 3rd ranked institution was removed from the sample of institutions.

The data collection period for the tweets was December 2020-January 2021. Prior to this period, tweets may have been deleted, removed by Twitter or hidden from view. This data collection period makes it difficult to say these were all statements expressed by the universities and colleges of engineering during the period of interest. We went to the Twitter account for each institution to see any statements made about the BLM movement from time period of May 30 through July 17.

Criteria for this dataset were tweets that mentioned BLM and racial injustice. We took note of the context and messaging in each tweet. We utilize a content analysis methodology to count and categorize these tweets quantitatively. Empirically, these tweets will describe the range of ideas that occurred as BLM emerged as a national movement following George Floyd's death.

Table 1. Sample of institutions

INSTITUTION	LOCATION	SIZE	AFRICAN AMERICAN DEGREES AWARDED (ASEE, 2019)	PERCENTAGE OF BLACK STUDENTS
GEORGIA INSTITUTE OF TECHNOLOGY	Atlanta, Georgia	Large	153	7%
NORTH CAROLINA A&T STATE UNIVERSITY	Greensboro, North Carolina	Mid-size	150	84%
PRAIRIE VIEW A & M UNIVERSITY	Prairie View, Texas	Mid-size	116	86%
UNIVERSITY OF MARYLAND, COLLEGE PARK	College Park, Maryland	Large	109	13%
FLORIDA INTERNATIONAL UNIVERSITY	Miami, Florida	Large	97	12%

**University of Maryland, Baltimore County was the 3rd ranked institution it is removed from the data analysis due to lack of Twitter presence*

Findings

Table 2. Summary of Content Results for Each institution

INSTITUTION	# OF TWEETS RELATED TO BLM	TIMING	CONTENT OF MESSAGE
GEORGIA INSTITUTE OF TECHNOLOGY	4	June 1-17	Acknowledges pain and frustration in the student population. They expressed the need to stand in solidarity with African American students and commitment diversity. They also supported #ShutDownSTEM and #ShutDownAcademia. Furthermore, they expressed the need to examine the history and building of the university.
NORTH CAROLINA A&T STATE UNIVERSITY	4	June 9- July 14th	Highlighted students at protest, summer series on social justice and healing, Juneteenth and resources for community building.
UNIVERSITY OF MARYLAND (COLLEGE PARK)	15	May 31 st - July 21 st	Made calls to end racism, address unchecked bias and support #ShutDownStem, and hosted events that promote healing and support.
PRAIRIE VIEW A & M UNIVERSITY	17	June 13 th - July 13th	Dedicated activism and BLM posts to Sandra Bland and #SayHerName. They highlighted student activism and the creation of a BLM mural and documentary.
FLORIDA INTERNATIONAL UNIVERSITY	12	May 30- July 24th	They call out silence on BLM issues and state that they are on the side of justice. In addition, they highlight efforts of an Equity Action Initiative and provide space for healing.

The Georgia Institute of Technology, also known as Georgia Tech, is a top-ranked public college and one of the USA's leading research universities. During the period following George Floyd's death, Georgia Tech released two messages concerning BLM. The first tweet on June 1st acknowledges pain and frustration in the community and expresses solidarity with African American students. This tweet was retweeted by the Georgia Tech College of Engineering's account. The Georgia Tech College of Engineering Dean also released their thoughts on their Facebook, which the College of Engineering platform on Twitter highlighted. They shared the link for the Dean's message and summarized his sentiments to call for allies and gain the courage to do so. The account also retweeted a letter to the Black Georgia Tech community writing by the Georgia Tech Society of Black Engineers. On June 9th, the Woodruff School of Mechanical Engineering released a statement on racial and social injustice as shown in Figure 2. In this statement, they acknowledged the contributions of diversity and said they are committed to understanding, valuing, and celebrating all people.



Figure 2. Statement Retweeted by Georgia Tech College of Engineering

Movements such as #ShutDownSTEM and #ShutDownAcademia emerged in support of the Black Lives Matter movement. Several engineering departments, including Industrial and Systems and Aerospace Engineering, promoted participation and provided more information. The College of Engineering retweeted this act of solidarity. On June 17th, Georgia Tech followed up with actions they felt were appropriate in response to BLM. The move was to examine the history of buildings on campus and be committed to plans that consider changing the names of buildings with a history rooted in racism. Again, the College of Engineering retweeted these sentiments. Furthermore, the college retweeted emotions from an engineering student, motivating that a lot needs to change beyond just responding to the Black Lives Matter Movement.

North Carolina A&T State is one of the most prominent HBCUs in the country and the #1 producer of degrees awarded to African Americans in North Carolina. They are nationally recognized for their excellence in science, technology, mathematics, and engineering (STEM) education. During the period following George Floyd's death, North Carolina A&T released four messages regarding BLM. Their first Twitter post on June 9th expressed support to students that led a protest in their hometowns. It is not clear if they are alumni or current students, but from the tweet, one can infer that they consider these individuals' families because they were a part of the Aggie community. They were proud that one of their own rallied together individuals to make changes in society.

On June 16th, they tweeted about kicking off a summer series on social justice and personal healing. We included a Juneteenth tweet, on June 19th, for this institution because it

used this holiday to make a statement about the “fight, determination and resiliency” of Black Americans and a call of action for freedom. This is another form of protest for this institution. If not having these innuendos for BLM, the tweet would not be included in this analysis. There were several tweets and retweets since July 8th about a conversation centered on organizing for social justice and channeling emotions into actions that would take place on July 14th. The retweets and reminders were not counted as additional tweets in this analysis. The College of Engineering at North Carolina A&T didn’t make any statements on their own. However, there were tweets retweeted by the university and chancellor. An example of a tweet retweeted by the college of engineering is shown in Figure 3. These tweets reiterate that the campus is rooted in activism and condemn individuals/systems that allow oppression to persist. They promote systemic change amid unrest, unity towards change, and the ability to have difficult discussions in this pain.



Figure 3. Statement Retweeted by North Carolina A&T College of Engineering

The University of Maryland, College Park is the state’s flagship university and one of the nation’s preeminent public research universities. During the period following George Floyd’s death, the University of Maryland released 15 messages about BLM. The University of Maryland first tweeted on May 31st, expressing the need for accountability. They took the responsibility to inform students, staff, and faculty about opportunities that established a call to action and promote community. On the same day, a second tweet expressed concern about the lack of police accountability and expressed support towards the peaceful demonstrations for justice.

On June 1st, they promoted the President’s letter to campus with a quote saying the need to “rise up and stand together to show our humanity.” On June 2nd, they provided access to educational resources to help the community learn, support, listen, and act. On June 4th, they promoted a series of events to organize and reflect on recent events. On June 5th, they released a statement publicly reprimanding students engaging in indecent behavior concerning George Floyd’s death and offered administrative leave to the community members that needed it. On this

same day, they tweeted about an event where the community can receive tools for anti-racist action. This was coded as a solidarity statement, but they did more than sympathize with the community; they publicly took a stance for justice and relieved the pressures of grieving community members.

On June 8th, they retweeted another town hall meeting where community members can have dialogue. On June 9th, they promoted an article written by an undergrad and athlete discussing institutional racism. Another opinion piece was announced on June 22nd concerning the psychological burden of the need to explain racism. This same day they promoted an event that provides educational tools to recognize and respond to racial trauma and racial anxiety. On June 23rd, more events were announced that brought together religious and predominantly white groups. On June 24th, they explained their calls to action through a three-part anti-racism action plan and committed to creating a culture where Black people can feel safe and included. On July 28th, they hosted a panel on higher education's role in eradicating systemic racism. The final tweet was on July 31st, promoting a book on Black people's difficulties in the American legal system. This institution tackled the BLM movement for several society sectors to relieve Blacks' pressure to explain their grievances. There were more tweets about system racism beyond this timeline, but this is outside this paper's scope.

Within the University of Maryland, we also took a look at UMD Clark School, the engineering Twitter account. The majority of the tweets were retweeted from above, including acknowledging insufficient police accountability and the President's letter to campus. They released their personal department statement on June 2nd from the Dean of UMD Clark School that addresses racism, lack of respect, and unaddressed implicit bias shown in Figure 4. They also retweeted messages from the Office of Diversity and Inclusion and Black Student Organizations. On June 10th, they began to promote the #ShutDownAcademia and #ShutDownSTEM by deciding to pause to listen, reflect and make actionable plans to end anti-Black racism. Unfortunately, they did not provide any further insights into how this would be accomplished.

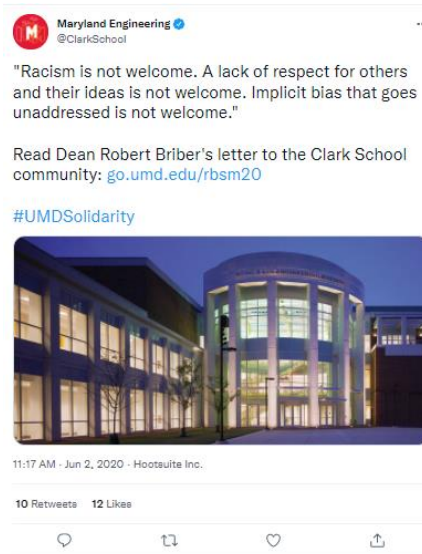


Figure 4. Statement Released by UMCP College of Engineering

Prairie View A&M University has been recognized in well-respected publications as a top-notch, leading institution of higher education. The university promotes academic scholarship, supports student success, and encourages well-rounded professional development. During the period following George Floyd's death, Prairie View A&M released 17 messages about BLM. Prairie View's protest focused on Sandra Bland, contrary to the other universities' protest centered on George Floyd. After seeing multiple tweets, it became clear that Sandra Bland was an alumnus of this university. This university expressed the utmost dedication to protesting BLM and #SayHerName. There were six tweets on June 13th displaying signs, chanting, and protest for Sandra Bland. On June 14th, they retweeted a tweet from their Political Science Department expressing gratitude for the march's support and urged the community to continue to fight. On June 18th, they announced that a BLM mural would be painted on the street of Sandra Bland's arrest. The university announced that they would be kicking off a lecture series on Race, Black Lives, and Protest on the same day.

On June 19th, they tweeted about the importance of recognizing Juneteenth as a federal holiday. The same day, the public relations highlighted the publicity they were getting for the BLM mural. On June 22nd, they announced that alumni Robbie Tolan, a victim of police brutality, would be on a show explaining their experience with the Supreme Court, BLM, and his baseball career. While highlighting BLM, they also expressed support to the universities' police department on June 23rd. On June 24th, they provided a resource on Black transgender women and their invisibility in BLM shown in Figure 5. It was unique for this university to promote and critique BLM simultaneously. On June 30th, they announced the launching of a lecture series on the attack on Black bodies. On July 13th, they honored Saundra Bland, marking that it was five years since her death. Unfortunately, there were no tweets past November 21st, 2019 for the PVAMU Engineering account therefore, that data will not be presented in these findings.



Figure 5. Statement Released by Prairie View A&M

Florida International University (FIU) is Miami's first and only public research university. Designated as a top-tier research institution, FIU emphasizes research as a significant component of the university's mission. During the period following George Floyd's death, FIU released 12 messages concerning BLM. On May 30th, FIU tweeted a statement from the university president standing on the side of justice and accountability. On June 1st, they retweeted a message released by the Black Student Union (BSU) expressing that they stand with them as they call out those silent on these injustices. On June 2nd, they participated in #Blackouttuesday to express their solidarity once again with BLM. The same day, they promoted an event that discussed racial unrest in America following George Floyd's death.



Figure 6. Statement Retweeted by Florida International University

On June 4th, they promoted a town hall discussion about diversity, unity, and action. Three days later, they highlighted people gathering on campus to protest police brutality shown in Figure 6. They encouraged a community gathering for a moment of silence for George Floyd's death on June 8th. On June 9th, they promoted a Black humanity matters teach-in. This was announced several times, and it was not recounted for the content analysis. On June 10th, they released an article discussing the tips for talking to children about racial inequality and social justice. On June 12th, the university expressed its comment to making change through the Equity Action Initiative. On June 16th, they promoted an event discussing racial inequality and police brutality. Lastly, on July 24th, they provide updates on their progression towards fighting systemic change. The College of Engineering retweeted the majority of these tweets. The Engineering and Computing Department made their statement on June 19th announcing their participation in a vigil to honor the victims and heal from collective trauma.

Cross-institution Insights

As we look across institutions, several themes surfaced through the content analysis. These themes highlight how the BLM movement was framed to meet the institution's uses of Twitter. From this content analysis preliminary themes rose to the surface: expression of solidarity, state commitment to change institutional culture to align with diversity aims, support of protest, celebration of Juneteenth, encourage community support, administrator statements to campus, educational resources that promote the opportunity to learn about racism, call to action for allies, snowball activism and re-examination of history.

Table 3. Preliminary Results from Content Analysis Across institutions

institution	Georgia Institute of Technology	North Carolina A&T State	University of Maryland (College Park)	Prairie View A&M University	Florida International University
PWI or HBCU	PWI	HBCU	PWI	HBCU	PWI
Expression of solidarity	X		X		X
State commitment to change institutional culture and focus on diversity	X		X		X
Support of protest		X	X	X	X
Juneteenth		X		X	
Encourage community support	X	X	X		X
Administrator's statement to campus	X	X	X		X
Educational Resources		X	X	X	X
Call to action for allies	X	X	X		
Snowball activism (e.g. #ShutDownSTEM, #ShutDownAcademia & #BlackOutTuesday)	X		X		X
Examine history of institution rooted in racism	X	X			

In this study, tweets were used to show solidarity and support for Black students who may have felt distressed during this period. Several institutions expressed the need to commit to their diversity objectives and transforming institutional culture. Among these statements, administrators expressed their frustrations and encouraged this movement to promote healing and community gatherings. The majority of the PWI's in this sample also emphasized a call to action for allies to whom BLM may not have a personal impact. They promoted events that depict solidarity, such as vigils, seminars, and other movements (i.e. #ShutDownSTEM, #BlackOutTuesday). In conclusion, the institutions' movement framing around BLM emphasized how social movements can be a catalyst for change at large institutions that consistently contribute to the top number of African American engineering degrees.

Implications for Higher Education

After conducting this study on a small sample of universities that successfully serve African American communities, it is evident that silence is complacency. Speaking up in this context is essential to serving the African American community. Each institution, rather large or small, PWI or HBCU, released social media statements concerning BLM. This release of statements clarifies that Black lives matter in the institution. It is essential to note that the use of Twitter may also be a place where universities make non-performative speech acts. Non-performative speech acts are words that a university does not put into practice (Ahmed, 2020). For instance, administrators within institutions made statements and calls to with the intent to misalign themselves from racial injustice. However, from looking at tweets alone, one cannot infer if the institutions are just making statements or if they truly intend to make significant changes to the institution sooner than later. Non-performative speech acts highlight two key limitations in this study: (1) tweets were not collected longitudinally to see if more tweets were made following the direct responses to George Floyd and (2) we did not capture how students perceive the messages made on Twitter.

There were institutions more involved in creating activities than others, and each university expressed support in ways that met Blacks' needs on campus. There were a few messages that were consistent with the type of organization. Each PWI released a statement from the President of the University, acknowledging the weight of emotions present and standing in solidarity with the Black community on their campus. PWI's expressed their concerns to the African American students and focused on things they know they can change now. Both HBCU's in the sample expressed the importance of celebrating Juneteenth and highlighted those within their community who participated and led BLM protest. HBCUs expect their students to be angry, and a statement of solidarity was not necessary. Their messaging focused on highlighting students' work in the BLM movement and providing the best support for them to do this appropriately.

Within the engineering departments a trend was identified as the need to support movements to shut down academia and STEM. The movement specifically focused on white and non-Black people working on eradicating anti-Black racism. Furthermore, it highlights how academia and STEM create knowledge and technologies that impact society and are weaponized against Black people. Tweets within this space focus on creating space for Black populations to heal and non-Black populations to commit to continuously educate themselves.

This paper provides insight into the most prevalent ways that higher education can utilize social media platforms to express support for social movements that profoundly impact the students they serve. These educational institutions saw BLM as an opportunity to educate the greater community on racial injustice, prison pipeline, racial/trauma healing, anti-racism, diversity, inclusion, equity, and social justice organizing. They highlighted experts, resources, and organizations doing the work and took their critiques into consideration. It is massive movements such as BLM that encourage institutions to critically look at how their institutions uphold oppressive structures and shift the culture. This outcry in America pushed the community to come together and allowed higher education to be a leader of change as we move forward into the future.

In the future, we would like to take a closer look at the places engineering departments choose to make their statements (i.e. other social media platforms or school website). The current analysis is limited to Twitter statements. We expect to see more ways institutions provide support to Black students through engineering support centers and email listserv. We would also like to see how the messages of these top 5 African American engineering degree institutions compare to the overall top 5 engineering colleges. It would be insightful to understand how these messages differ across institutions. Furthermore, this data analysis could be extended by capturing longitudinal data following George Floyd's death (e.g. after 6 months or year) and taking a closer look into the ways Black students served by these institutions perceive Twitter messaging.

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