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2019 Online Conversation Benchmarks for Higher Education

A Campus Sonar Social Listening Study

By Amber Sandall
with contributions from the Campus Sonar Team

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Executive Summary

This study benchmarks online conversation metrics for a representative sample of higher education institutions, and examines how online conversation changes for institutional characteristics, such as size and program type. Higher education professionals will be able to use the data in this report to analyze their institution's online conversation behavior against comparable institutions.

Our analysts discovered a number of strategic insights that you can use to create actionable outcomes that align with your institution's goals.

GENERAL CONVERSATION

- Large doctoral institutions have the most online mentions and unique authors compared to other institution types.
- There is a clear seasonal trend in conversation about higher education institutions.
- Generating quality engaging content is an opportunity for higher education institutions to influence how their audience talks about them online. Institutions can shape their online presence so it is representative of their brand, culture, and priorities.

ADMISSIONS AND ALUMNI CONVERSATION

- More retweets of owned content correlated with more retweets of audience-generated content results in a snowball effect that enhances a higher education institution's online visibility.
- Students are online, engaging in conversations that influence their enrollment decision. Each conversation is an opportunity to provide an admitted student with the information they need to make their decision. Listening for and responding to these online conversations can have a very clear ROI in the form of tuition revenue or fundraising.

ATHLETICS CONVERSATION

- For Division III or other affiliated institutions, performance and national recognition is not as important to the audience as their personal connection to an athlete.
- With Instagram becoming increasingly impactful for athletics and non-athletics topics, it's a competitive platform to complement campus Twitter outreach.
- An increase in positive online sentiment toward an institution with the addition of athletics mentions is likely tied to a personal investment in an athletics program due to geographic proximity or a personal connection. Small institutions should recognize this and align their athletic content with the messaging developed to support the larger institutional brand, rather than supporting traditional athletics fan messaging.
- When not faced with limitations from the NCAA, smaller institutions receive significant online recognition from admitted student athletes—leverage this online topic of conversation.
- Athletics conversation levels the playing field. Private institutions should leverage their owned athletic content as much as possible for brand alignment.

Introduction

The internet is real life, where humans express sorrow, joy, frustration, and accomplishment. To meet the needs of the humans they serve, whether prospective or current students, alumni, parents, taxpayers, or decision-makers, higher education institutions are gradually expanding their online presence. But the reality is that their online presence is a combination of what they say about themselves and what others say about them.

Over the last two years we've observed that most institutions don't have the resources to measure and assess their online conversation. This benchmark study provides a better understanding of the general online presence of higher education institutions with the goal of helping your institution determine where it might fit within the industry and your peer group. Understanding the basic benchmarks for online conversation also offers a starting point for institutions to analyze their own online presence.

For higher education institutions, the objectives of this study are as follows.

- Describe the publicly available online conversation of a sample of higher education institutions.
- Segment the sample by characteristics such as enrollment, program type, and control (i.e., public vs. private).
- Provide a benchmark of online conversation metrics.

For higher education professionals the outcome of this study includes the following.

- Analyze their institution's online conversation behavior against comparable institutions.

We hope this study is a starting point for higher education leaders to understand how much conversation may be occurring about their institution. The conversation about an institution has implications on key campus outcomes, such as:

- Marketing strategy
- Recruitment
- Enrollment and retention
- Alumni engagement
- Crisis management

As we analyzed the data, we have many additional questions that are outside the scope of this study. We'll continue to dive deeper into the data and share the results in our Brain Waves newsletter and blog.

CONTRIBUTORS

As with everything we do at Campus Sonar, this research was truly a group effort and many talented individuals contributed to the research and content. Social listening data analysis was performed by Lindsey Hinkel, Rochelle Kulas, Emily Prell, and Traci Sesko. Stephen App and Liz Gross served as reviewers, and Michelle Mulder edited and coordinated the production of this study. We're incredibly thankful to Kate Orenberg and Ter Vue for partnering with us to design the report.

AUTHOR

Amber Sandall, Campus Sonar's Research Manager, brings expertise in marketing, communications, and data analysis and reporting to her role of managing Campus Sonar's social listening research program and operations. With both agency and higher education experience, she enjoys unearthing actionable insights to help colleges and universities drive growth. When she's not thinking about research projects, Amber enjoys a good taco and a new book.

Amber Sandall,
Research Manager

ABOUT CAMPUS SONAR

Campus Sonar is a specialized social listening agency that empowers colleges and universities to find and analyze conversations that matter, seize engagement opportunities, and develop data-informed strategies. We identify your high-priority needs, and our skilled analysts build custom queries and analyze online conversation data to deliver actionable insights and automated alerts.

We offer solutions from flexible, project-based services that fulfill short-term needs to ongoing partnership services that provide lasting value. Whether you need a few tools to supplement your own social efforts, or a full-blown program and analysis, our analysts provide expert strategy and guidance to fit your needs.

Learn more about our services, or sign up for our newsletter, Brain Waves, at www.campussonar.com

Dr. Liz Gross
CEO, Campus Sonar

We've seen a lot of companies publish "research reports" without a robust methodology section (if there even is a methodology section). We are not one of those companies. We're putting the methodology front and center so you can better understand how social listening data is collected, and specifically how it was gathered for the research in this study. There are many ways we could have approached this research, but our choices reflect a desired balance of rigor, efficiency, and industry accessibility. This is the first multi-institutional social listening study in higher education and we wanted to get it into your hands as soon as possible. We chose a manageable and reasonably representative sample and reported on a fairly conservative number of metrics. Hopefully, this is a starting point for others interested in conducting similar research at their own institutions or for the industry at large. One thing is certain—we know we're not finished answering the questions prompted by this study.

Methodology

Campus Sonar is dedicated to helping higher education institutions reestablish the public trust by supporting on-campus strategies for success through the delivery of strategic insights derived from social listening data. We're an invested participant in the outcomes of this study and we deliver action research.

Action Research: A process of concurrently inquiring about problems and recommending or taking action to solve them.

Social listening is a research tool used to collect publicly available online information and is considered the best data collection tool for this study. Our enterprise-level social listening software (Brandwatch Analytics) queried more than 95 million public webpages to collect and assess relevant online data.

Campus Sonar Social Media Data Analysts used social listening to collect data for higher education institutions with a non-experimental quantitative research design for the purposes of descriptive and correlational analysis. These findings are not generalizable to the entire population; they serve as benchmarks for higher education institutions by reporting the median value or the average as appropriate.

Quantitative Research: Research that relies on the collection and analysis of numerical data to describe, explain, predict, or control variables and phenomena of interest.

Non-experimental Research Design: A group of techniques used to conduct quantitative research where there is no manipulation to any variable in the study.

TERM	DEFINITION
QUANTITATIVE	
Descriptive	The study of the phenomenon of interest as it exists naturally; with no manipulation of the individuals, conditions, or events.
Correlational	The examination of whether—and to what degree—a statistical relationship exists between two or more variables. A statistical relationship exists if a change in one variable results in a systematic increase in another.

Additional details about sampling, data collection, analysis, and limitations can be found on page 28 in the Appendix.

Online Conversation Trends In Higher Education

Our sample selection strives to represent four main characteristics of higher education institutions: program type, size by enrollment, geographic region, and control of institution (i.e., public or private).

For more information, please find the Online Conversation Trends by Institution Type on page 21.

CONVERSATION SUMMARY

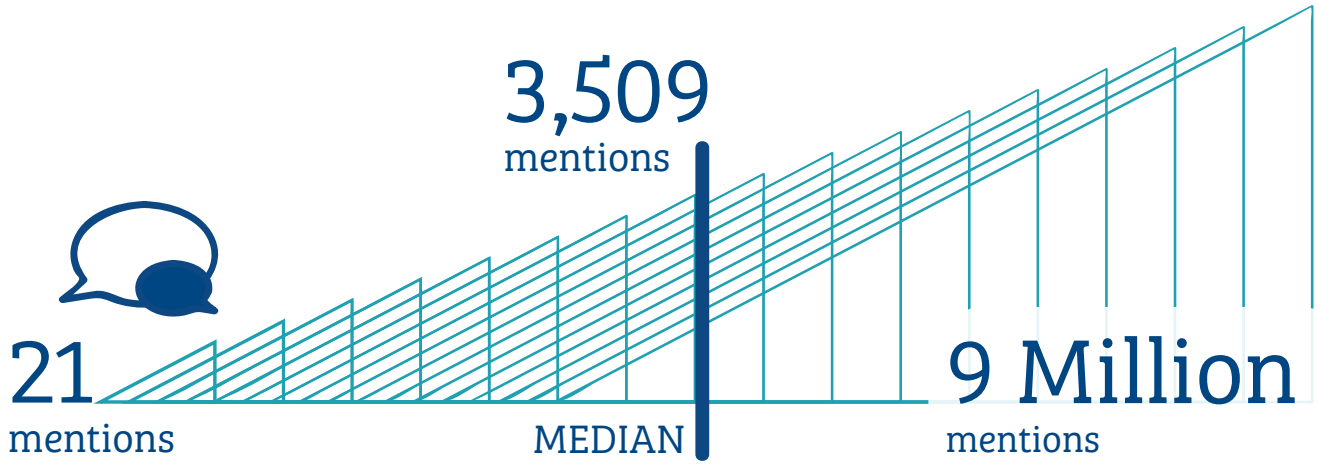
Our analysis identified a few trends across our sample of higher education institutions. In order to focus on institution-specific mentions (rather than athletic performance), this summary doesn't include athletics conversation, which accounted for 0–93 percent of online conversation about institutions in our sample (a summary of the athletics conversation can be found on page 14). Not all institutions in our sample had an athletic program and not all campus staff are interested in conversation about athletics. Removing athletics-related conversation from our initial benchmarks allows us to better represent conversation across all United States higher education institutions.

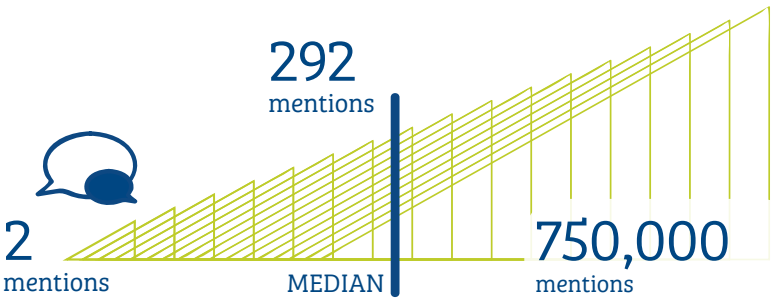
TRENDS ACROSS HIGHER EDUCATION INSTITUTIONS

Annual Conversation Volume

The annual online conversation volume for the sample ranges from 21 mentions (a very small, private, nonprofit faith-based institution in the Southeast) to about 9 million mentions (a large, private, nonprofit doctoral institution in New England) from August 2017 to July 2018, with a median value of 3,509 mentions.

ANNUAL MENTIONS



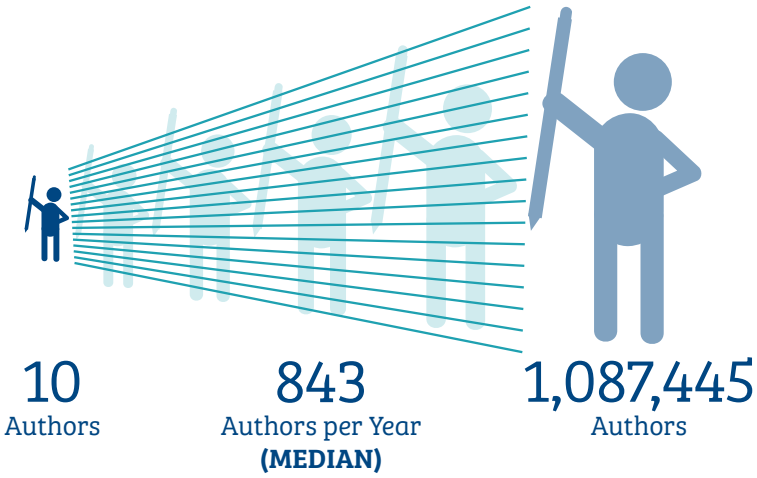


MONTHLY MENTIONS

Monthly, the conversation volume for the sample ranged from 2 to 750,000, with a median value of 292 mentions.

UNIQUE AUTHORS (MONTHLY)

The number of unique authors generating the online conversation annually ranged from approximately 10 to 1,087,445, with a median value of 843 authors per year. Monthly, the range was about one author to 90,600 with a median value of 31 authors per month.

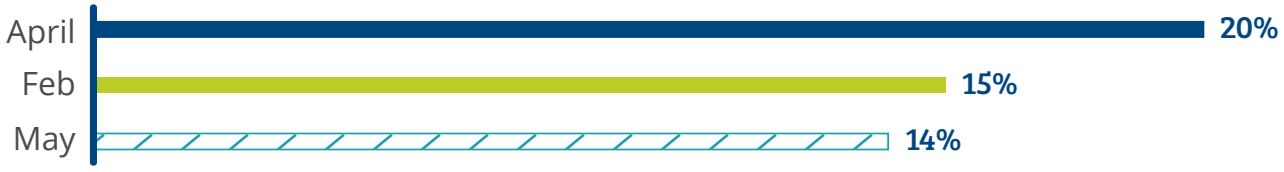


Large doctoral institutions (those that awarded at least 20 research/scholarship doctoral degrees or at least 30 professional practice doctoral degrees in at least two programs in the past year) have the most online mentions and unique authors compared to other institution types. In contrast, private institutions with enrollment under 1,000 typically collect less than 10,000 mentions annually from fewer than 500 unique online authors—regardless of the degree or educational focus of the institution. This is likely a combination of resourcing (larger institutions have more resources to create online content) and audience size (larger institutions and public institutions have larger student/alumni/community populations who are likely to talk about the institution).

Monthly Conversation Volume

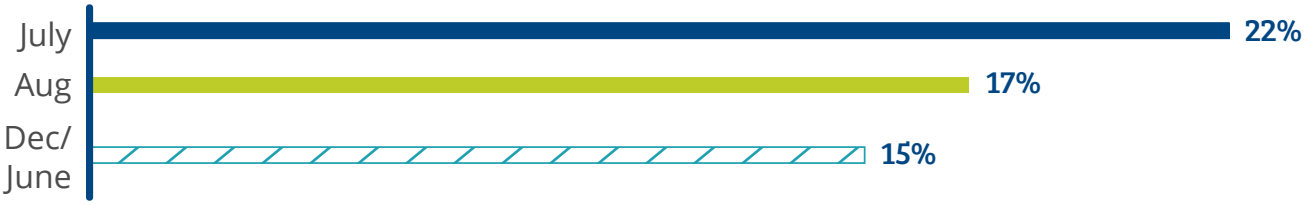
Institutions typically saw more online conversation during spring.

MOST CONVERSATION MONTHS



Periods of lower online conversation throughout the year coincide with on-campus breaks for institutions that follow a traditional semester schedule, including the summer months and the end of the calendar year.

LEAST CONVERSATION MONTHS



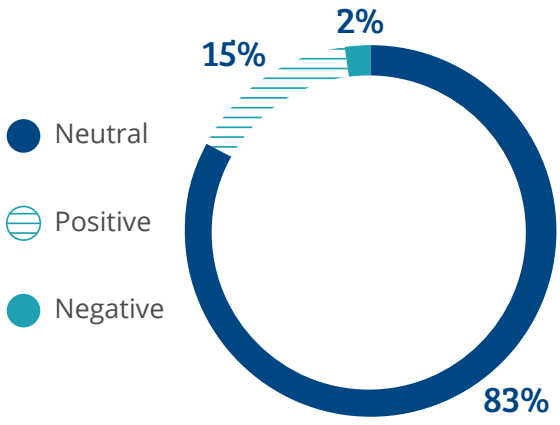
There is a clear seasonal trend in conversation about higher education institutions, with dips in the summer and December and peaks in the spring. Is this what institutions expect or want? Are there opportunities to increase authentic conversation about institutions during months when conversation is historically lower?

Five institutions in our sample bucked this trend. We plan to talk with them to learn more about their approach to online conversations—stay tuned to the Brain Waves Blog for future insights.

What's the Overall Sentiment?

Each institution's online conversation was automatically categorized for sentiment (i.e., positive, neutral, or negative) by the social listening analytics software. For a variety of reasons, no sentiment algorithm is perfect; even humans interpret sentiment differently. At this level, sentiment is an at-a-glance metric that can quickly gauge changes in the positive or negative nature of conversation. Sentiment for an individual institution is best measured by a combination of algorithm, rules-based sentiment categorization that aligns with the institution's sentiment expectations, and spot-checking by a human analyst.

AVERAGE SENTIMENT VALUES FOR THE SAMPLE



It's important to note that sentiment does fluctuate across our sample.

SENTIMENT	RANGE
Positive	0-29%
Neutral	63-97%
Negative	0-32%

Removing two outliers with exceptionally high negative sentiment (14 percent and 32 percent), the negative sentiment range for the sample settles into a more expected range: 0 to 6 percent. The institution with 32 percent negative sentiment saw a significant number of mentions about scientific testing on animals.

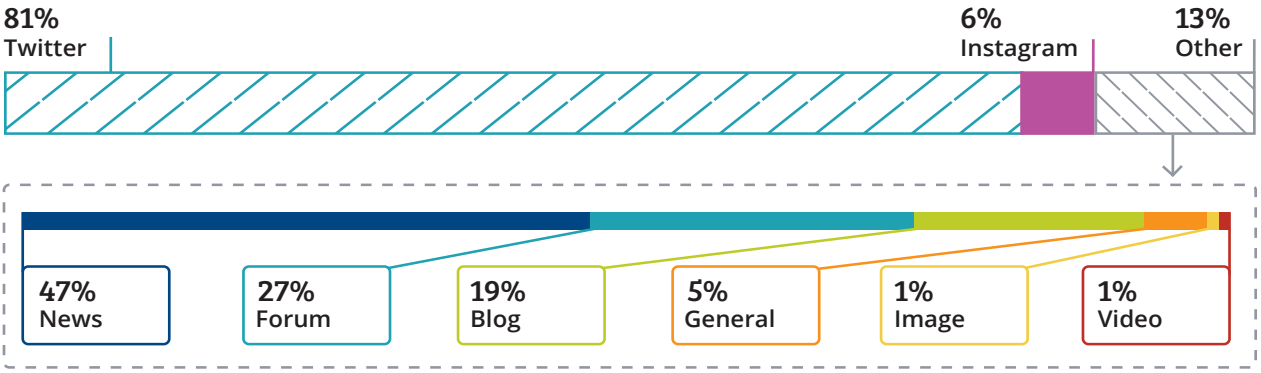
Upon investigating which institutions have more positive sentiment (greater than 20 percent), it tended to be very small, private nonprofit institutions. This may be due to a smaller, more manageable online conversation volume, as well as more individuals who are personally invested in the institution.

Where Are People Talking?

For the study period, institutions were primarily mentioned on Twitter and Instagram. Twitter is the largest and most easily searchable publicly-available data source for social listening and represents the largest percentage of mentions in almost any social listening data set. The limitations on collecting data from certain sites (including Facebook, LinkedIn, and college review sites) impact the analysis of where higher education institutions are mentioned online. For example, Twitter is the largest data source and conversation volume may be slightly over-represented as a result.

The grouped data from all sample institutions indicates that 13 percent of online conversation comes from non-Twitter and Instagram sources, primarily news, forums, and blogs.

CONVERSATION BY PAGE TYPE



In comparing the volume of online conversation sources for our entire sample to the year prior to our analysis, Instagram mentions increased by 608 percent for non-athletics conversation. Total mentions from news sites as well as forums increased compared to the year prior.

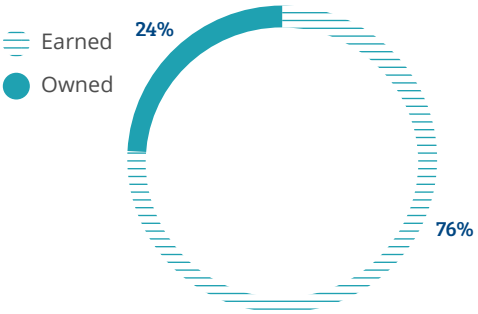
Understanding where online conversation about higher education institutions occurs is helpful for multiple reasons. First, it helps you understand where people talk about your institution so you can prepare to respond to opportunities, either on- or offline; but don't discount the value of conversation from sites that have a small volume of mentions. Particularly when social listening supports recruitment, retention, or alumni development goals, a single mention can represent an opportunity to meaningfully interact with a student or better inform alumni outreach. Second, understanding where conversation occurs is key to understanding how the public shapes their view of your institution. The 90-9-1 rule for participation inequality for social media and online communities reminds us that most online contributions come from just one percent of the online population, while nine percent of online community members create content from time to time and 90 percent tend to read and observe rather than contribute. Similar to an iceberg, for the conversation you do see there's a lot more under the surface. For every one person creating content about your institution, another 90+ are likely reading, watching, or listening to it.

Who Generates the Online Conversation?

Total online conversation, similar to traditional media models, is generated through both owned and earned conversation.

On average, 24 percent of the online conversation about our sample institutions was owned and 76 percent was earned.

Note that for each institution in the sample, we gathered the names of the main campus, alumni, and admissions accounts, as well as the names of academic departments, centers, and athletics accounts as applicable; student associations, clubs, or groups were not considered owned. All content in our sample published by the above accounts is considered owned.



The percentage of owned conversation within the sample ranged from 0–76 percent, while the earned conversation ranged from 24–100 percent. Three institutions in our sample (small or very small private institutions) did not publish any owned content during our data collection period.

Two of the three institutions that appeared to not post any content during the sample period were active on Facebook (we were unable to gather Facebook data for this study due to privacy limitations), and the third isn't active on any social media channels.

Owned and Earned Conversation Breakdown

Our analysis identified four sub-categories of mentions to calculate owned conversation.

Owned Tweets:
Tweets from accounts identified as owned social media; does not include any retweets.

45%
Average % of Owned Content

Owned Retweets:
Retweets of owned account tweets.

34%
Average % of Owned Content

Owned Non-Twitter Content:
All web content except Twitter and owned websites, i.e., Instagram, YouTube, forums, etc.

11%
Average % of Owned Content

Owned Websites:
Websites identified as produced by and within the institution's control, i.e., main campus, athletics, alumni.

6%
Average % of Owned Content

The audience-driven conversation generated the following content types.

Earned Tweets:
Twitter content except those from identified owned social media accounts; not including retweets.

36%
Average % of Owned Content

Earned Retweets:
Retweets of the content identified within the Earned Tweets category; can include content from owned social media accounts that retweet audience tweets.

30%
Average % of Owned Content

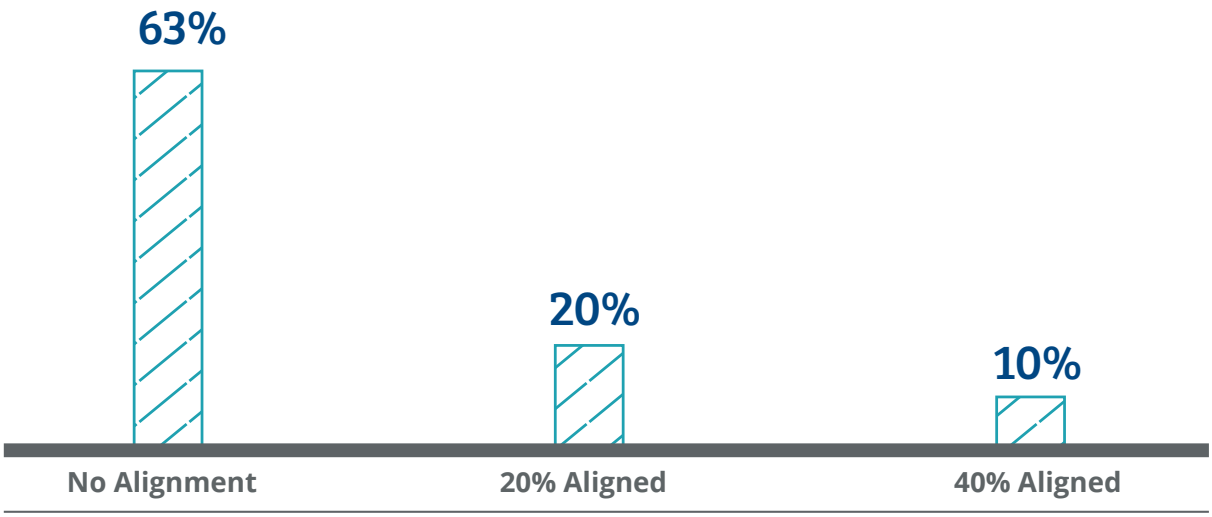
Earned Non-Twitter Content:
All web content except Twitter, owned websites, or content from owned social media accounts.

34%
Average % of Owned Content

Engaging Twitter Content Shapes Earned Conversation

We assessed the top five themes of owned and earned conversation, finding that more retweets of owned content resulted in a measure of institutional online influence: alignment of owned and earned conversation themes. When owned content is retweeted more, independently generated audience content (i.e., earned conversation) is more aligned with the topics and themes of owned conversation.

However, only 10 percent of institutions in our sample saw 40 percent alignment between owned online content and audience-generated content.



We were unable to determine owned/earned content alignment for five schools due to a lack of online conversation for those institutions.

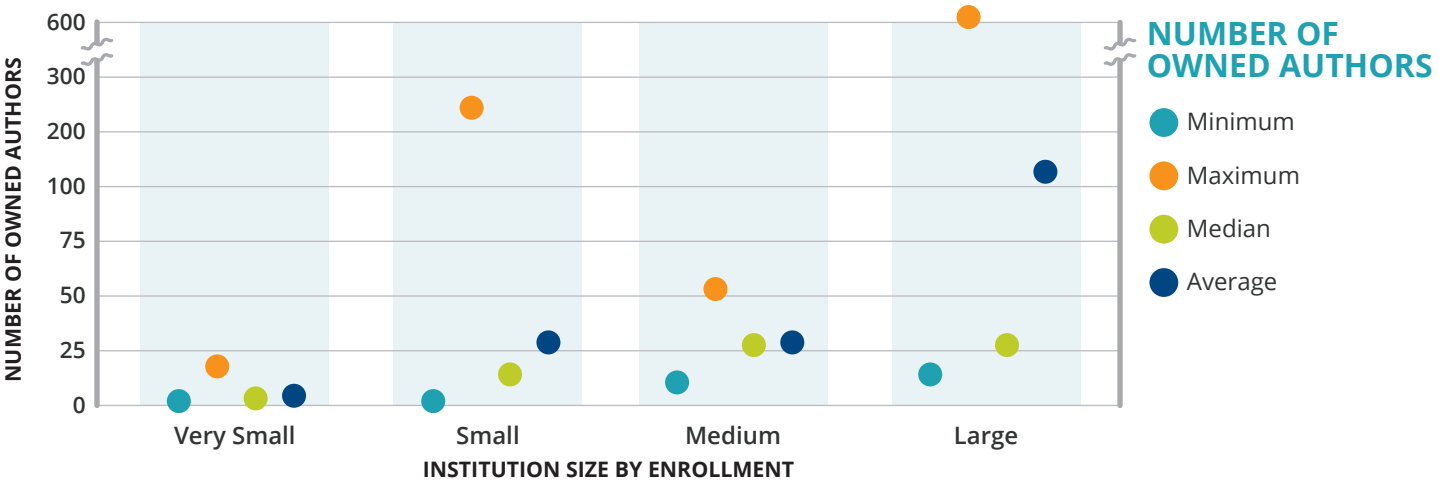
Generating quality engaging content is an opportunity for higher education institutions to influence how their audience talks about them online. Institutions can shape their online presence so it is representative of their brand, culture, and priorities.

In looking closely at the share of owned conversation that's owned retweets, we noticed a higher percentage of owned retweets correlates with a higher share of retweets in earned conversation.

An audience that's likely to retweet owned tweets appears just as likely to retweet audience-generated content about a higher education institution. More retweets of owned content correlated with more retweets of audience-generated content results in a snowball effect that enhances a higher education institution's online visibility.

While institutions with more owned social media accounts don't have a larger share of earned conversation compared to their peers with fewer owned social media accounts, those with more accounts tended to have more people talking about them online (with more unique earned authors and more retweets of earned content).

Our research found that medium and large institutions (those with more than 3,000 students enrolled) tended to have more owned social media accounts. The number of owned social media accounts for small institutions (1,000 to 2,999 students enrolled) varied—perhaps based on resources available to create, manage, and maintain multiple social media accounts.



Admissions & Alumni Conversation

We assessed the volume of online conversation from prospective students, admitted students, and alumni for institutions in our sample. In order to identify these conversations, we used rules-based categorization and segmentation. The rules are based on a proprietary taxonomy developed by our research team.

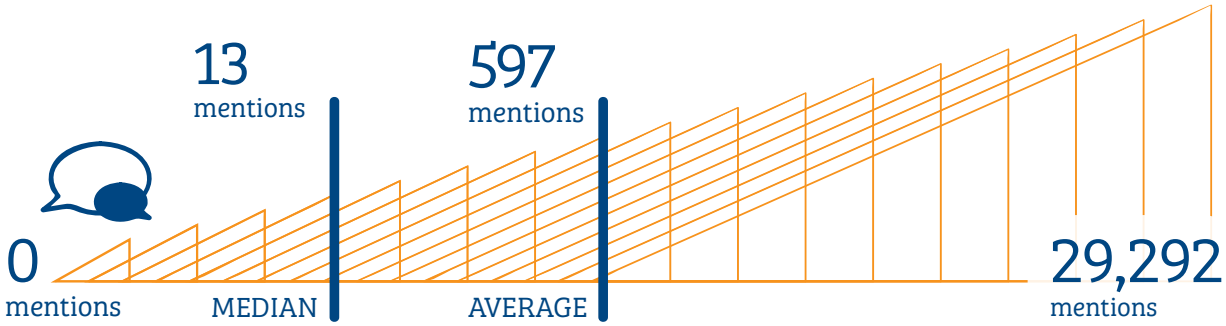
On Twitter, Instagram, and forums, institutions heard from—or about—prospective students from not at all to 6,483 times annually. One is the median of that range, with less than half of our sample only rarely hearing from prospective students online.

Excluding an outlier with 6,483 mentions from or about prospective students, the range becomes 0-221—however, the

median is still one. The majority of the sample (48 institutions) received less than 10 mentions from or about prospective students in the sample period.

Admitted students were a different story. While half of our sample heard from admitted students fewer than 13 times annually, other institutions heard from admitted students nearly 30,000 times in a year.

ANNUAL CONVERSATION FROM ADMITTED STUDENTS

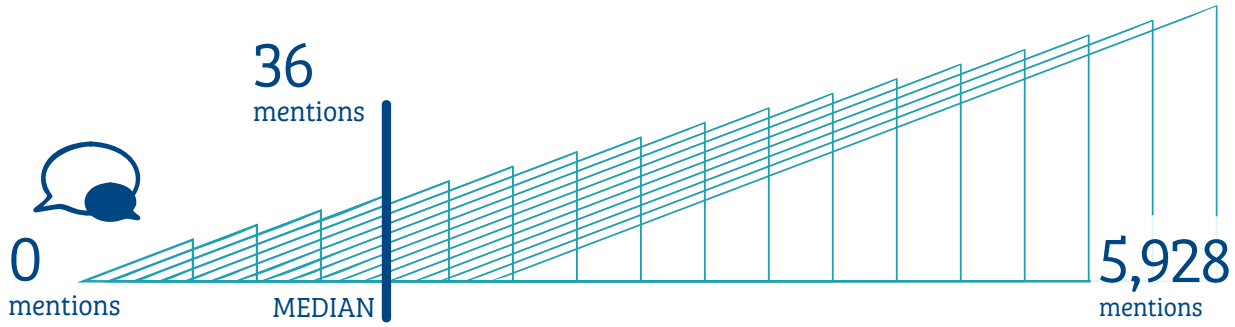


Prior research (*The 2017 Social Admissions Report*) found that 35 percent of students said social media was very or extremely useful in their college search, with another 45 percent saying it was somewhat useful. And nearly 40 percent of students say that their decision of where to enroll is influenced by conversations they have on social media. So often we hear campuses saying they want to "reach students on social media." Our research suggests that many of them are already there—after they've been admitted—engaging in conversations that influence their enrollment decision. Whether a dozen or hundreds (even thousands) of these conversations occur, each one is an opportunity to provide an admitted student with the information they need to make their decision. This might mean: demonstrating that your institution will engage with them one-on-one; introducing them to students, faculty, or alumni; or providing them with information they weren't able to find on your website. Listening for and responding to these online conversations can have a very clear ROI in the form of tuition revenue or fundraising.

Alumni, typically self-identifying, contributed nearly 26,500 times online to nearly nothing for institutions in our sample. The median of the range is 12, meaning that 50 percent of the sample earned mentions from alumni fewer than 12x/year, while 50 percent earned more than that annually. Excluding an outlier, the range shrinks to 0–1,015. Alumni self-identify by including phrases such as "graduated from, alumni of, etc." in their post.

However, on news sites, alumni tend to be mentioned more. While some institutions still have no alumni news mentions, others had as many as 102,000 per year. Excluding an outlier, the range shrinks to 0-5,928, with a median of 36.

ANNUAL CONVERSATION ABOUT ALUMNI



Due to the way data was collected for alumni mentions, these values include athletics mentions, accounting for approximately 25 percent of alumni mentions collected.

On news sites, alumni mentions often include professional accomplishments (i.e., new jobs or awards and recognition), community involvement, and key life events. An institution is much more likely to learn of these things through social listening than from self-reported alumni updates. Every mention represents an opportunity to either engage with an alumnus (e.g., to congratulate them or invite them to share experiences on campus) or to gather intelligence to better inform appeals and identify prospective major donors. This information should be added to alumni databases so it can be referenced in the future as relationships with young alumni develop.

ADDING ATHLETICS CHANGES THE CONVERSATION

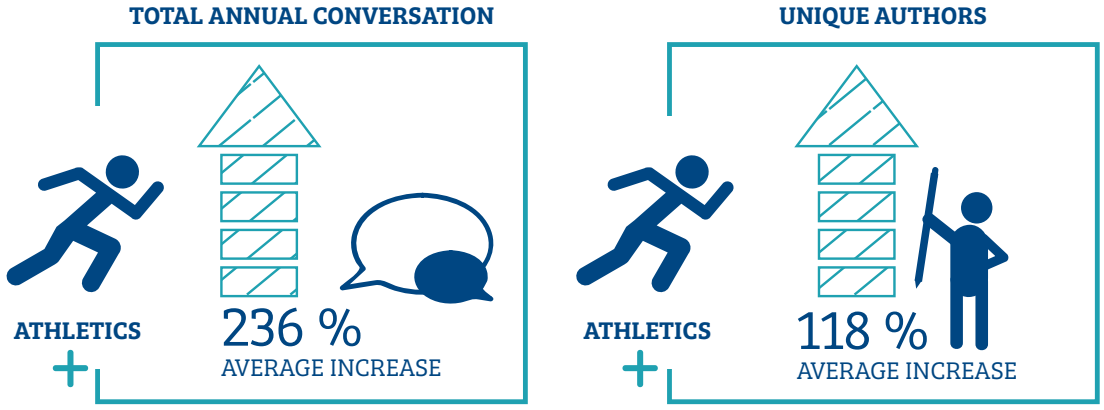
We assessed the impact of athletics conversation on total online conversation for institutions with an athletics program. These 36 institutions spanned the following athletic affiliations.

AFFILIATION	NUMBER OF INSTITUTIONS
NCAA Division I	6
NCAA Division II	7

AFFILIATION	NUMBER OF INSTITUTIONS
NCAA Division III	12
Other Organizations	11

Institutions with an athletics program averaged 55 percent of their total online conversation from athletics-related topics. When athletics conversation and non-athletics conversation is measured, the total annual online conversation increases by 236 percent on average and the number of unique authors for each institution increases by 118 percent on average.

IMPACT OF ATHLETIC CONVERSATION



Institutions without an athletic affiliation have a median value of 1,380 for total online conversation. In comparison, institutions with an athletic affiliation have a median value of 22,325 for total online conversation—16 times larger than institutions without an athletic affiliation.

Athletics is not driving conversation at institutions with high-performing or well-known athletics programs. In fact, the opposite seems true. Of the 22 institutions in our sample with a higher-than-average percentage of athletics-related conversation, 73 percent play in NCAA Division III or other affiliated sports (e.g., NAIA, USCAA) and all but two are classified as small or very small.

For the Division III or other affiliated institutions, performance and national recognition is not as important to the audience as their personal connection to the athlete (e.g., a family member or the only person from a small town to play at the collegiate level). Rather than focusing on reporting scores or the play-by-play, these institutions should share more athlete profiles, stories celebrating their ability to play in college while also focusing on a well-rounded liberal arts education, or the bonds that athletics help a student form with their peers and the institution.

WHERE DOES ATHLETICS CONVERSATION COME FROM?

Owned conversation accounts for 24 percent, on average, of an institution's non-athletics mentions. When athletics mentions are included, it accounts for an average of 36 percent of the owned conversation. A corresponding decrease is found in earned conversation, which drops from 79 percent to 64 percent of the total conversation on average. These changes in owned and earned conversation mean that on average, owned conversations increase by 12 percent and earned conversations decrease by 15 percent for higher education institutions with the addition of athletics conversation.

In both cases, athletics-related content accounts for approximately half of content from owned accounts and audience-generated content.

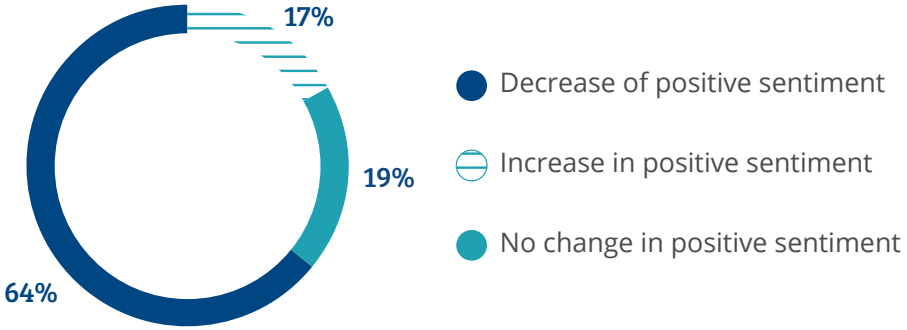
The addition of athletics conversation to non-athletics conversation doesn't change the sources of online conversation data very much, with the volume of Instagram mentions decreasing and Twitter mentions increasing for the entire sample by about one percent.

Compared to the year prior, athletics mentions increasingly came from Instagram, news, and blog sources, with fewer coming from Twitter and forums.

While we observe that more athletics conversation for an institution means more retweets of owned conversation, we have yet to see if next year there will continue to be a downward trend in athletics mentions on Twitter. With Instagram becoming increasingly impactful for both athletics and non-athletics topics, it's a competitive platform to complement campus Twitter outreach.

INSTITUTIONS EARN MORE NEUTRAL ONLINE SENTIMENT DUE TO ATHLETICS

Three institutions with just over a 100 percent increase in total online conversation, earn between 52 percent and 61 percent of their total conversation from athletics mentions, close to the 55 percent average of the sample. These three institutions were of six total in the sample that saw an increase of positive sentiment (largely from neutral sentiment) with the addition of athletics mentions. Sentiment, while imperfect, is an indicator worth investigating when it changes unexpectedly. In comparison, seven institutions saw no change in positive sentiment, while 23 (64 percent of institutions in the sample with athletic affiliation) saw a decrease in positive sentiment to more neutral mentions.



What differentiates the six institutions that saw an increase in positive sentiment in their online conversation with the addition of athletics mentions? It's possible these six institutions have a historically good athletics program, positive campus culture around athletics, or a good 2017–2018 season. Here's what they have in common from our dataset.

- Total annual conversation for each institution under 25,000 mentions
- Five of the six are private nonprofit institutions with enrollment under 3,000 students
- Four are NCAA Division III institutions, the other two participate in non-NCAA athletics

The audience interested in athletics at this type of institution is likely to be geographically proximate to campus or have a personal connection to the institution (student, faculty, family, or alumni) in comparison to the audience of a NCAA Division I institution which may have more national fans and recognition.

An increase in positive online sentiment toward an institution with the addition of athletics mentions is likely tied to a personal investment in an athletics program due to geographic proximity or a personal connection. It's more likely that a fan with such an investment in a smaller institution is of more interest to recruitment or development staff versus a fan of a Division I institution. Small institutions should recognize this and align their athletic content with the messaging developed to support the larger institutional brand, rather than supporting traditional athletics fan messaging.

The personal investment some fans have could be tied to the theory of Fan Identification. The theory states that the closer a fan identifies with a particular sports team, the angrier they get after a loss or poor performance. When angry, fans often turn to social media to share their thoughts and frustrations.

ATHLETICS DRIVING INSTITUTIONAL BRAND

What can higher education institutions of any size or athletic affiliation do to drive positive sentiment around both their athletics program and their brand? The Division III institutions examined earlier hold a clue, and two of them gave us permission to share their story.

Beloit College Highlights Student-Athlete Experience and Educational Opportunities

The women's lacrosse team at Beloit College conducted summer check-ins with student athletes and posted the athletes on their Instagram account. The posts provided personalized updates about student athletes and also aligned with Beloit College brand drivers.

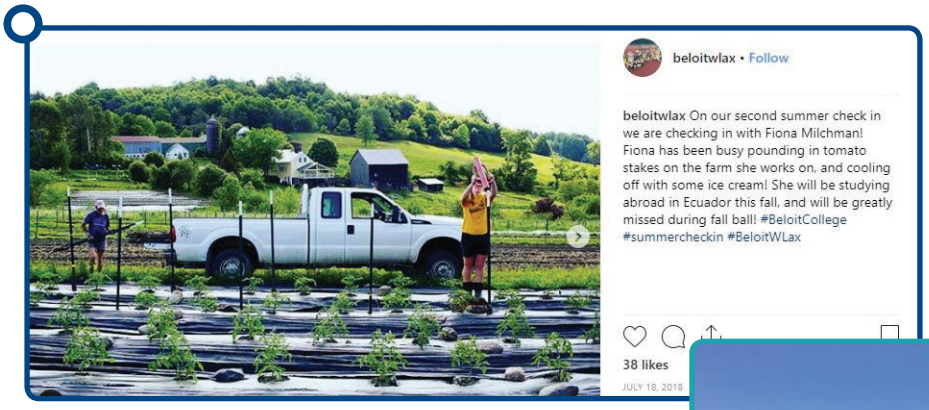


Figure 1: A Beloit College brand driver is a *one-of-a-kind tailored education*. Lacrosse player and student Fiona certainly demonstrates that with her choice to study abroad in the upcoming semester.

Figure 2: Sy took a gap year after graduating high school, teaching in India for eight months. Her path led her to Beloit College, where she'll start in the fall and play on the women's lacrosse team. Sy's story embodies *joyful, purposeful practice* in traveling to India, learning about a different culture, and staying curious about the world.

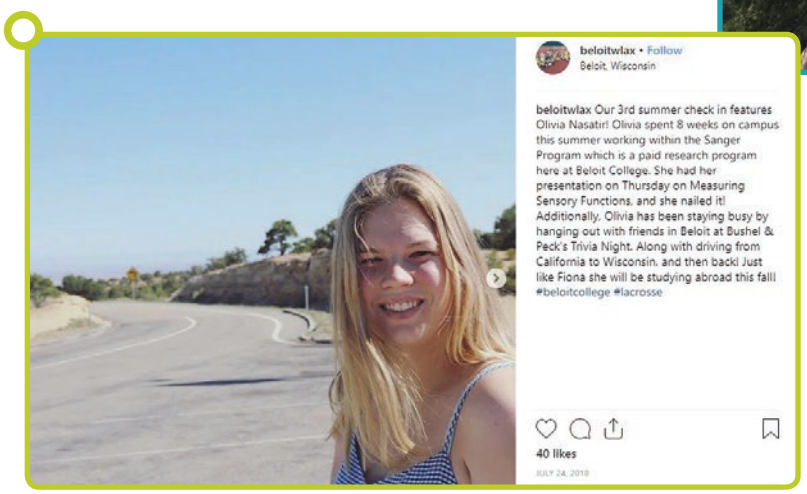


Figure 3: Olivia plays lacrosse and works at the Beloit College Sanger Program, highlighting another brand driver of the college, *exclusive opportunity* for students to partake in real-world research.

Hamline University Athletic Accounts Support University Brand Pillars

Athletic content doesn't just have to be about the competition, the next big game, or live-tweeting scores. Hamline University demonstrates how to integrate brand pillars seamlessly into athletic content to support a cohesive online presence, athletics and all.

Figure 4: The Hamline Pipers challenge competitor Carleton to help them "fill the truck" with donations at their next men's soccer game, embodying the *we are leaders* brand pillar.

Figure 5: A tweet from the Hamline Student Athlete Advisory Committee illustrates the *dedicated, accessible faculty* brand pillar of the university. Student-athletes celebrate and connect with the faculty and staff that support them.

ATHLETIC PROGRAMS IMPACT VOLUME OF ADMISSIONS CONVERSATIONS

Prospective and admitted students are prone to talk online about everything from touring a higher education institution to applying to acceptance.

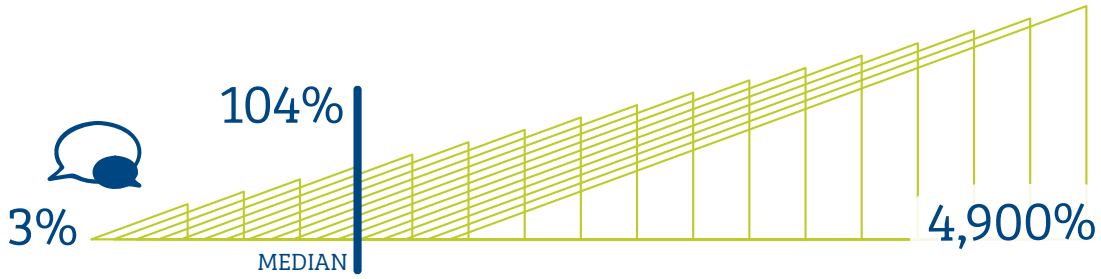
Prospective Students Talk More about Larger Institutions

When accounting for online conversation from prospective students related to athletics, total online conversation from prospective students increased by 71 percent on average—but only consistently for institutions with more than 3,000 students. These mentions were primarily from student-athletes meeting with coaches, touring facilities, or meeting potential teammates.

Students Talk about Admittance Regardless of Institution Size

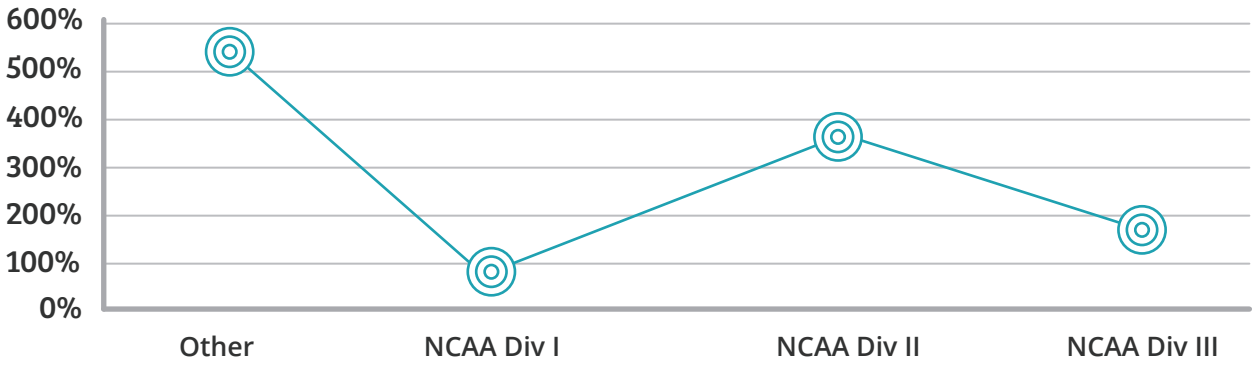
When we examined the impact of athletics-related online conversations from admitted students and families, we found that nearly all of the institutions in our sample (regardless of size) saw a 315 percent increase in online conversation from admitted students due to athletics-related content.

INCREASE IN ADMITTED STUDENTS CONVERSATION DUE TO ATHLETICS



However, institutions who participated in non-NCAA athletics (e.g., NAIA, NJCAA) had the greatest percentage increase in online conversation from admitted students due to athletics-related mentions.

AVERAGE INCREASE IN ADMITTED CONVERSATION BY ATHLETIC AFFILIATION



Smaller institutions receive significant online recognition from admitted student athletes. As student athletes post about admittance, their online network likes, retweets, and comments—a lot. Although there are restrictions about when an institution can connect with an admitted, but not yet enrolled, student athlete online, there are ways to leverage this online topic of conversation. Institutions might consider publishing narratives on their athletic accounts around first-year student athletes, why they chose the institution, and their first-year experience.

SEGMENTING ATHLETICS CONVERSATION PROVIDES VALUABLE INSIGHTS

We chose to separate athletics conversation from non-athletics conversation in this report because we've continually been surprised by the impact it has on conversations about higher education institutions. It's also generally difficult for an institution without sophisticated social listening software and analysts to segment conversation in this way.

For medium and large institutions, there is value in excluding athletics from analysis geared toward insights that impact recruitment, retention, or development; keepers of the brand may still be interested in its impact on reputation and sentiment. For small institutions, however, athletics conversation appears to have greater value to admissions and advancement teams, and the insights gleaned should inform more strategic content from digital properties representing athletics.

Conclusion

What does this insight mean for you? If you're a higher education professional, you should be able to review the benchmarks we've provided and compare your institution's online conversation to the segments we've identified.

The most impactful strategic insights we've identified from our analysis tell us a few things about higher education's online conversation behavior.

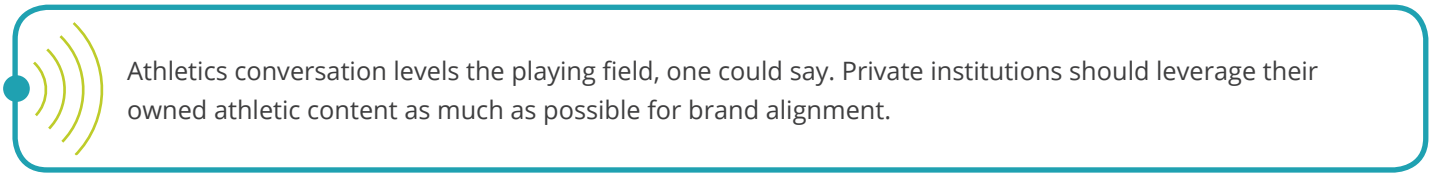
- Quality, engaging content influences how your audience talks about you online. You can shape your online presence so it's representative of your institution. This is especially important given the 90-9-1 rule—90 percent of the population observes the conversation, while only one percent creates the conversation.
- Every conversation that you find about your institution is an opportunity to learn from or engage with your audience and increase your ROI in the form of tuition revenue or fundraising.
- Athletics conversation is increasingly impactful—whether to complement your general conversation about your brand, gain positive sentiment, or create brand alignment—it levels the playing field for online conversation and supports your institutional brand.

ONLINE CONVERSATION TRENDS BY INSTITUTIONAL CHARACTERISTIC

As part of our analysis, we investigated each institutional characteristic within our sample in order to identify trends between public versus private institutions, differences in institutions by enrollment size, and institutions with a variety of program types.

PUBLIC VS. PRIVATE

While public institutions have higher metrics than private institutions by nearly every measure of online conversation, it's interesting to note again the impact of athletics. With the addition of athletics conversation, the share of owned conversation for each type of institution falls between three percentage points of each other (32 percent to 35 percent) from a difference of 15 percentage points (17 percent to 33 percent) without athletics.



Athletics conversation levels the playing field, one could say. Private institutions should leverage their owned athletic content as much as possible for brand alignment.

Private nonprofit institutions may not capture the same amount of non-athletic conversation as public institutions, but they almost always outperform public institutions in terms of non-athletic admissions conversations. With outliers removed, private nonprofits see up to 3,074 annual mentions from admitted students, while public institutions only see up to 1,525 for our sample.

Compared to public and private nonprofit institutions, private for-profit institutions in our sample don't have a strong online presence (with only 1–10 owned authors). Paired with the fact that not many people are talking about them online, with their earned conversation typically at 67 percent of their total online conversation, private for-profit institutions appear to struggle online with brand awareness.

Our sample included 12 public institutions, 38 private nonprofit institutions, and 15 private for-profit institutions.

METRIC	PUBLIC	PRIVATE NONPROFIT	PRIVATE FOR-PROFIT
Total Annual Conversation	Median: 20,260 Range: 2,061–959,320	Median: 4,164 Range: 21–8,967,233	Median: 670 Range: 51–5,655
Average Increase in Total Annual Conversation with Addition of Athletics Conversation	200% Range: 0%–488%	162% Range: 0%–1,329%	27% Range: 0%–223%
Number of Unique Authors	Median: 625 Range: 265–47,257	Median: 425 Range: 1–1,087,445	Median: 76 Range: 10–879
Month with Most Conversations	May, September (tie)	April	April
Month with Least Conversations	July	July	August

METRIC	PUBLIC	PRIVATE NONPROFIT	PRIVATE FOR-PROFIT
Average Positive Sentiment of Total Conversation	14% Range: 5%–20%	15% Range: 0%–27%	15% Range: 3%-29%
Average Neutral Sentiment of Total Conversation	82% Range: 63%–89%	84% Range: 72%–96%	83% Range: 69%-97%
Average Negative Sentiment of Total Conversation	4% Range: 0%–32%	1% Range: 0%–14%	2% Range: 0%-6%
Owned Conversation—Average Percent of Total	17%	23%	33%
Owned Conversation—Average Percent of Total, Plus Athletics Conversation	33%	32%	35%
Average Conversation Type, Owned Breakdown	35% Tweets 48% Retweets 5% Non-Twitter Content 12% Owned Websites	42% Tweets 40% Retweets 10% Non-Twitter Content 6% Owned Websites	62% Tweets 6% Retweets 19% Non-Twitter Content 0% Owned Websites
Number of Owned Authors	Median: 14 Range: 2–51	Median: 8 Range: 0–609	Median: 2 Range: 1–10
Earned Conversation—Average Percent of Total	83%	77%	67%
Earned Conversation—Average Percent of Total, Plus Athletics Conversation	67%	68%	65%
Average Conversation Type, Earned Breakdown	38% Tweets 39% Retweets 24% Non-Twitter Content	33% Tweets 34% Retweets 33% Non-Twitter Content	34% Tweets 13% Retweets 53% Non-Twitter Content
Number of Unique Earned Authors	Median: 603 Range: 260–18,648	Median: 414 Range: 11–1,057,994	Median: 69 Range: 6–871
Alignment of Top 5 Topics of Owned and Earned Conversation	3 institutions were 20% aligned 1 institution was 40% aligned	9 institutions were 20% aligned 4 institutions were 40% aligned	2 institutions were 20% aligned
Alumni Conversation	Median: 180 Range: 0–6,295	Median: 83 Range: 0–129,252	Median: 5 Range: 0–725
Admissions Conversation	Median: 15 Range: 0–1,525	Median: 27 Range: 0–35,775 Range: 0-3,074 without outlier	Median: 1 Range: 0–82

SIZE BY ENROLLMENT

As enrollment increases, so does: total annual conversation, share of earned conversation, number of unique authors, and alignment between owned and earned conversation.

Small- and medium-sized institutions seem to mostly be in competition for online awareness with each other (with similar online conversation trends, large and very small institutions serve as polar extremes for our sample).

Institutions that are exclusively graduate appear to have annual conversation volume similar to that of a very small institution, but the owned and earned ratio of a very large institution. Exclusively graduate institutions also have a curiously high share of owned non-Twitter and website content at 35 percent and earned non-Twitter content at 51 percent compared to other institution sizes.

Our sample included nine exclusively graduate institutions as well as 19 very small, 13 small, nine medium, and six large institutions.

METRIC	EXC. GRAD	VERY SMALL	SMALL	MEDIUM	LARGE
Total Annual Conversation	Median: 1,811 Range: 100–5,003	Median: 1,386 Range: 21–13,631	Median: 5318 Range: 670–61,818	Median: 10,784 Range: 5,655–66,169	Median: 188,357 Range: 14,190–8,967,233
Average Increase in Total Annual Conversation with Addition of Athletics Conversation	0% (No athletic affiliation)	Median: 0% Range: 0%–1,329%	Median: 186% Range: 0%–488%	Median: 117% Range: 4%–733%	Median: 144% Range: 6%–488%
Number of Unique Authors	Median: 206 Range: 24–548	Median: 152 Range: 10–518	Median: 850 Range: 84–9,478	Median: 1,427 Range: 566–8,313	Median: 19,681 Range: 1,262–1,087,445
Month with Most Conversations	February	April	February, May, August (tie)	March, April (tie)	September
Month with Least Conversations	August	July	June	August	July
Average Positive Sentiment of Total Conversation	9%	16%	16%	14%	14%
Average Neutral Sentiment of Total Conversation	87%	82%	83%	84%	84%
Average Negative Sentiment of Total Conversation	4%	2%	1%	1%	2%

METRIC	EXC. GRAD	VERY SMALL	SMALL	MEDIUM	LARGE
Owned Conversation—Average Percent of Total	18%	30%	20%	24%	17%
Owned Conversation—Average Percent of Total, Plus Athletics Conversation	18%	37%	35%	34%	30%
Average Conversation Type, Owned Breakdown	27% Tweets 26% Retweets 18% Non-Twitter Content 17% Owned Websites	54% Tweets 23% Retweets 15% Non-Twitter Content 2% Owned Websites	47% Tweets 42% Retweets 7% Non-Twitter Content 4% Owned Websites	45% Tweets 43% Retweets 5% Non-Twitter Content 7% Owned Websites	24% Tweets 65% Retweets 2% Non-Twitter Content 10% Owned Websites
Number of Owned Authors	Median: 2 Range: 0–6	Median: 3 Range: 1–20	Median: 15 Range: 2–238	Median: 29 Range: 10–56	Median: 28 Range: 15–609
Earned Conversation—Average Percent of Total	82%	70%	80%	76%	84%
Earned Conversation—Average Percent of Total, Plus Athletics Conversation	82%	63%	66%	66%	70%
Average Conversation Type, Earned Breakdown	29% Tweets 20% Retweets 51% Non-Twitter Content	35% Tweets 26% Retweets 40% Non-Twitter Content	38% Tweets 32% Retweets 29% Non-Twitter Content	34% Tweets 33% Retweets 35% Non-Twitter Content	34% Tweets 48% Retweets 18% Non-Twitter Content
Number of Unique Earned Authors	Median: 187 Range: 24–514	Median: 147 Range: 6–496	Median: 789 Range: 83–9,361	Median: 1,397 Range: 524–8,200	Median: 15,482 Range: 1,184–1,057,994
Alignment of Top 5 Topics of Owned and Earned Conversation	1 institution was 20% aligned 1 institution was 40% aligned	6 institutions were 20% aligned 1 institution was 40% aligned	3 institutions were 20% aligned	1 institution was 20% aligned 2 institutions were 40% aligned	3 institutions were 20% aligned 1 institutions was 40% aligned
Alumni Conversation	Median: 26 Range: 6–339	Median: 17 Range: 0–243	Median: 186 Range: 0–1,917	Median: 725 Range: 57–2,012	Median: 4,630 Range: 283–129,252
Admissions Conversation	Median: 3 Range: 0–272	Median: 2 Range: 0–227	Median: 32 Range: 0–432	Median: 68 Range: 6–426	Median: 2,577 Range: 187–43,609

PROGRAM TYPE

Institutions that focus on art, music, and/or design tend to post more non-Twitter content—most likely due to the image-heavy content that is a best-fit for Instagram. Their earned conversation from non-Twitter content, while it does include news, is 60 percent of earned conversation—while other institution types only see between 23 percent and 46 percent from non-Twitter sources.

METRIC	ART/MUSIC/ DESIGN	BA: ARTS/ SCIENCE, DIVERSE, BA/ ASSOCIATES	PROFES-SIONAL: BUSINESS, LAW, TECH-NOLOGY, OTHER	DOCTORAL	FAITH	MASTERS	HEALTH
INSTITUTIONS	**5**	**21**	**6**	**7**	**9**	**9**	**5**
Total Annual Conversation	Median: 1,811 Range: 1,380–46,431	Median: 3,509 Range: 51–61,818	Median: 1,386 Range: 149–49,614	Median: 181,149 Range: 40,814–8,967,233	Median: 1,466 Range: 21–4,299	Median: 5,655 Range: 2,709–23,614	Median: 811 Range: 76–7,741
Average Increase in Total Annual Conversation with Addition of Athletics Conversation	Median: 0% Range: 0%–4% (Note: only one of the five institutions have athletics)	Median: 108% Range: 0%–1,329%	Median: 0% Range: 0%–257% (Note: only two of the five institutions have athletics)	Median: 79% Range: 6%–488%	Median: 0% Range: 0%–285% (Note: only two of the nine institutions have athletics)	Median: 223% Range: 108%–733%	0% (No athletic affiliation)
Number of Unique Authors	Median: 244 Range: 206–8,584	Median: 409 Range: 10–9,478	Median: 209 Range: 42–7,385	Median: 13,323 Range: 5,046–1,087,445	Median: 151 Range: 11–548	Median: 566 Range: 308–2,231	Median: 91 Range: 14–1,366
Month with Most Conversations	April	April	February	September	March	February, August (tie)	February, April (tie)
Month with Least Conversations	August	June	September	July, August, October (tie)	July	June, July (tie)	December
Average Positive Sentiment of Total Conversation	14%	17%	16%	13%	12%	18%	10%
Average Neutral Sentiment of Total Conversation	86%	81%	83%	85%	86%	81%	85%
Average Negative Sentiment of Total	1%	2%	1%	2%	2%	1%	5%*

METRIC	ART/MUSIC/ DESIGN	BA: ARTS/ SCIENCE, DIVERSE, BA/ ASSOCIATES	PROFES-SIONAL: BUSINESS, LAW, TECH-NOLOGY, OTHER	DOCTORAL	FAITH	MASTERS	HEALTH
INSTITUTIONS	**5**	**21**	**6**	**7**	**9**	**9**	**5**
Owned Conversation—Avg Percent of Total	15%	27%	29%	16%	22%	26%	27%
Owned Conversation—Average Percent of Total, Plus Athletics Conversation	15%	39%	33%	27%	29%	44%	27%
Average Conversation Type, Owned Breakdown	51% Tweets 15% Retweets 34% Non-Twitter Content 0% Owned Websites	50% Tweets 30% Retweets 14% Non-Twitter Content 5% Owned Websites	62% Tweets 25% Retweets 13% Non-Twitter Content 0% Owned Websites	24% Tweets 63% Retweets 2% Non-Twitter Content 11% Owned Websites	32% Tweets 35% Retweets 10% Non-Twitter Content 12% Owned Websites	46% Tweets 43% Retweets 5% Non-Twitter Content 6% Owned Websites	43% Tweets 22% Retweets 4% Non-Twitter Content 6% Owned Websites
Number of Owned Authors	Median: 2 Range: 2–29	Median: 8 Range: 1–238	Median: 5 Range: 1–8	Median: 51 Range: 15–609	Median: 2 Range: 0–9	Median: 14 Range: 4–54	Median: 3 Range: 1–7
Earned Conversation—Average Percent of Total	85%	73%	71%	84%	78%	74%	73%
Earned Conversation—Average Percent of Total, Plus Athletics Conversation	85%	62%	67%	73%	71%	56%	73%
Average Conversation Type, Earned Breakdown	29% Tweets 13% Retweets 60% Non-Twitter Content	40% Tweets 25% Retweets 36% Non-Twitter Content	33% Tweets 35% Retweets 33% Non-Twitter Content	32% Tweets 45% Retweets 23% Non-Twitter Content	30% Tweets 31% Retweets 39% Non-Twitter Content	34% Tweets 41% Retweets 25% Non-Twitter Content	32% Tweets 22% Retweets 46% Non-Twitter Content
Number of Unique Earned Authors	Median: 240 Range: 187–8,200	Median: 385 Range: 9–9,361	Median: 205 Range: 6–7,023	Median: 12,315 Range: 4,733–1,057,994	Median: 147 Range: 11–516	Median: 524 Range: 290–2,106	Median: 85 Range: 12–1,350

METRIC	ART/MUSIC/ DESIGN	BA: ARTS/ SCIENCE, DIVERSE, BA/ ASSOCIATES	PROFES-SIONAL: BUSINESS, LAW, TECH-NOLOGY, OTHER	DOCTORAL	FAITH	MASTERS	HEALTH
INSTITUTIONS	**5**	**21**	**6**	**7**	**9**	**9**	**5**
Alignment of Top 5 Topics of Owned and Earned Conversation	2 institutions were 20% aligned	5 institutions were 20% aligned	2 institutions were 20% aligned	2 institutions were 20% aligned 1 institution was 40% aligned	2 institutions were 40% aligned	1 institution was 20% aligned 2 institutions were 40% aligned	2 institutions were 20% aligned
Alumni Conversation	Median: 26 Range: 5–1,630	Median: 75 Range: 0–1,917	Median: 6 Range: 0–1,788	Median: 4,148 Range: 662–129,252	Median: 33 Range: 0–160	Median: 200 Range: 0–1,033	Median: 18 Range: 0–378
Admissions Conversation	Median: 13 Range: 1–468	Median: 27 Range: 0–674	Median: 6 Range: 0–432	Median: 918 Range: 39-28,421	Median: 0 Range: 0–227	Median: 48 Range: 2–232	Median: 12 Range: 0–195

*** Average negative sentiment for institutions primarily with health programs is slightly higher than other program types due to only one institution with a high negative sentiment.**

Appendix

SAMPLING AND DATA COLLECTION

Campus Sonar collected one year of historical online conversation data for 65 higher education institutions throughout October 2018.

SAMPLING

To determine the sample size for this report, we identified the population size, confidence intervals, and confidence level.

TERM	DEFINITION	VALUE	RATIONALE
Population Size	The entire group about which some information is required to ascertain.	2,924	The number of higher education institutions in the U.S. according to the 2015 Carnegie Classification of Institutions of Higher Education® (CCIHE), excluding institutions that entirely or predominately confer only Associate's degrees, due to low conversation volume.
Confidence Interval	Also called Margin of Error, the Confidence Interval is a range of values, above and below a finding, in which the actual value is likely to fall; it represents the accuracy of precision of an estimate.	12%	A 95% Confidence Level is a common research selection. Together with the Confidence Interval of 12%, the goal of this research is to report that 95% of the time the true percentage of the population falls within a range of plus or minus 12% on any metric.
Confidence Level	An expression of how confident a researcher can be of the data obtained from a sample.	95%	

The nature of social listening as a research tool is statistically limited due to privacy limitations from individuals, online platforms, and research tools. We leveraged every opportunity to maintain rigor, such as identifying the population size, confidence interval, and confidence level in order to identify a sample representative of the population. Based on these values, the calculated sample size is 65 higher educational institutions.

SAMPLE PROCEDURE

To successfully achieve our objective, and the outcome for higher education professionals, we segmented the sample by four institutional characteristics. The characteristics were sourced from the 2015 Carnegie Classification of Institutions of Higher Education® and National Center for Education Statistics (IPEDS) to select and segment a sample proportionate to the population. More information on each characteristic is located on page 34.

CHARACTERISTIC	SOURCE	SOURCE VARIABLE NAME	SOURCE VARIABLE DESCRIPTION
Program Type	CCIHE	BASIC2015	2015 Basic Classification (i.e., Doctoral, Master's, etc.)
Institution Type	IPEDS	CONTROL	Control of Institution (i.e., public or private)
Size by Enrollment	CCIHE	SIZESET2015	2015 Size and Setting Classification Detailed on page 36.
Geographic Region	IPEDS	OBEREG	Region Code

A fifth variable from IPEDS, NAME, CITY, STABBR indicates the institution name, city location, and state abbreviation to generally identify higher education institutions.

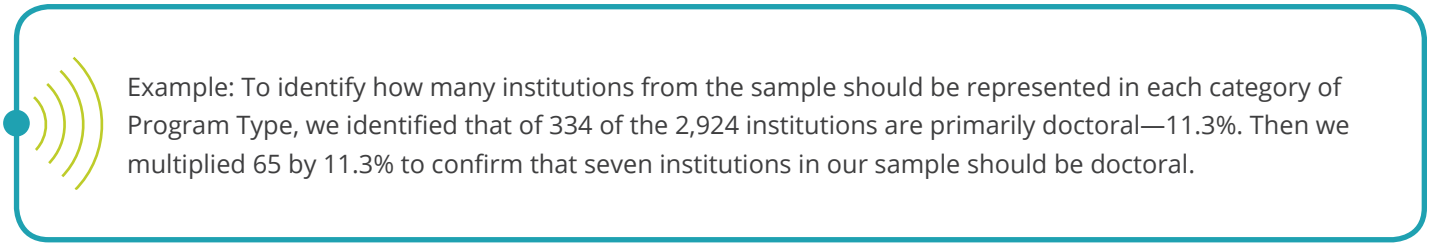
A quota sampling procedure selected the 65 higher education institutions for the study, ensuring that the assembled sample has the same proportions to the population for the four characteristics outlined.

Quota sampling is the ideal technique to select and segment the sample and investigate each characteristic based on the data collected for each identified metric. This type of sampling appears representative of the population, however it is only representative for these four characteristics—other unidentified characteristics may be unintentionally under- or overrepresented in the sample.

SAMPLE SELECTION

Campus Sonar used the following process to select 65 institutions representative of the 2,924 non-associate degree-granting institutions across the four characteristics.

- Determine the proportion of each characteristic (Program Type, Institution Type, Size by Enrollment, and Geographic Region) across the entire population (2,924 institutions).



- Define the distribution of the 65 sample institutions within each characteristic, rounding to the nearest whole number, to identify how many institutions should fall within each category of each characteristic.

Determine randomly the final sampling of the 65 institutions for each characteristic with the following exceptions.

a. In the event of a tie between two geographic areas, we selected the area containing more private, nonprofit institutions with enrollment under 10,000 students because Campus Sonar targets these campuses for our services.

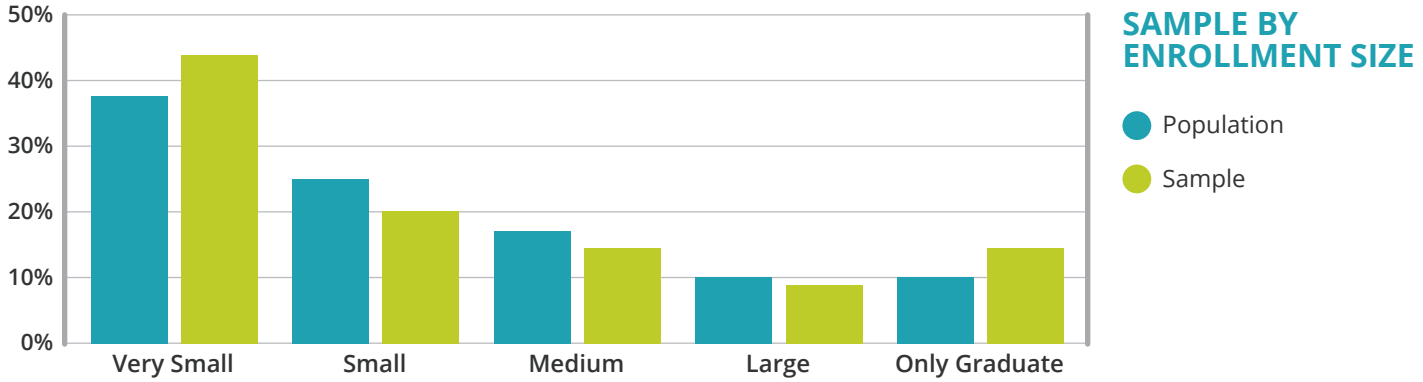
b. Institutions located in outlying areas such as Puerto Rico and the Virgin Islands were not selected due to language limitations in collecting comparable social listening data.

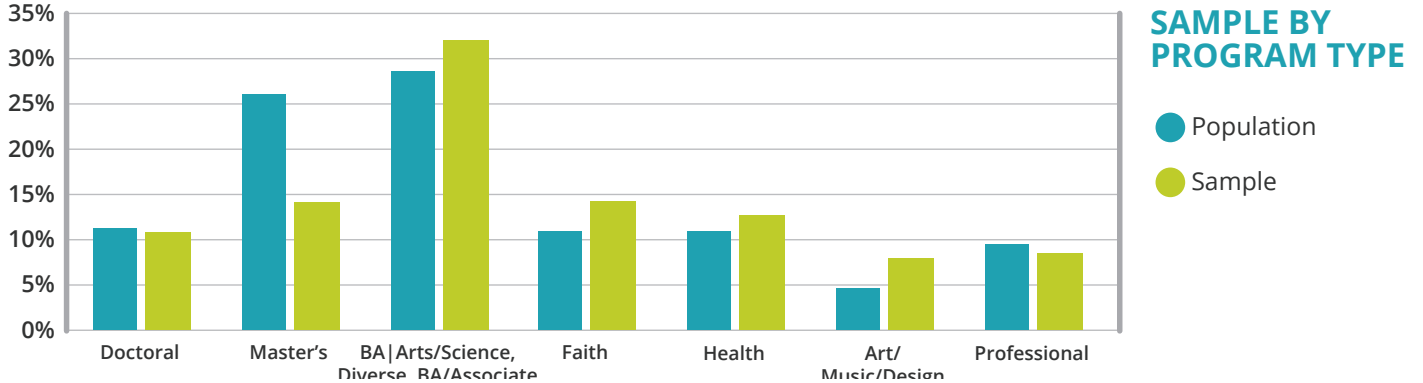
c. Institutions with multiple campuses or shared names were not selected due to challenging data collection and analysis, e.g., an undue burden in terms of time spent validating data for a free industry report.

d. Institutions unclassified by size, classified as two-year, and U.S. service schools were not selected due to low conversation volume.

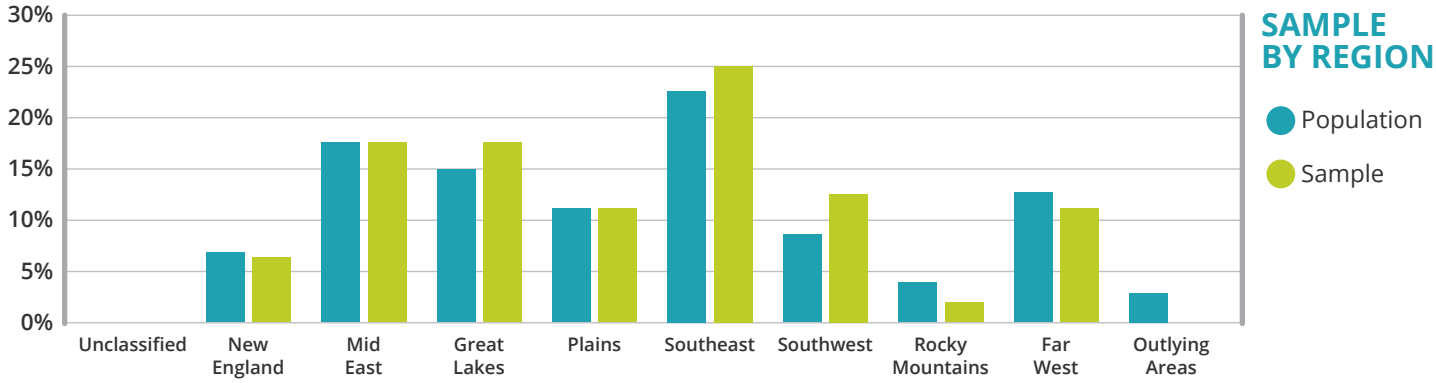
e. Institutions Campus Sonar previously collected data for were selected whenever possible within the sampling parameters. This resulted in more efficient and, at times, more robust data collection efforts.

FINAL SAMPLE COMPARED TO POPULATION





*The Master's degree type category was under sampled due to a calculation error discovered after data collection had been completed. For a sample most representative of the population, we should have included 16 Masters institutions, and the sample only has 9.



DATA COLLECTION

- In October 2018, Campus Sonar Social Media Data Analysts used Brandwatch Analytics, enterprise social listening software, to collect publicly available online conversations for the 65 higher education institutions in our sample.
- Social listening data was collected from public online mentions occurring from August 2017 to July 2018. Analysts gathered 55 metrics aligned with the objectives of this study (see Appendix for metric list) using the following data collection process.

STEP	DESCRIPTION	PROCESS
Write Query	Create a unique query using Boolean operators for each institution. In Brandwatch, the query searches the internet for matching content.	Identified and wrote a ~200 character-query, including the following components. • General names and terms for each institution including nicknames and campus mascots • URLs for the main institution website and athletic site • Hashtags unique to the institution • Twitter and Instagram accounts for the main campus, alumni and admissions departments, and other campus accounts; student associations were not included • Duplicative terms or phrases were excluded
Create Author Lists	Create a list of Twitter and Instagram authors to categorize online mentions.	Created two author lists for each institution: Owned and Athletic. • Owned Authors: Twitter and Instagram accounts for the main campus, alumni and admissions departments, and other campus accounts that appear to be controlled by the institution; student associations were not included • Athletic Authors: Twitter and Instagram accounts (primarily owned) that are primarily focused on institutional athletic teams
Categorize Online Mentions	Write Boolean rules to categorize an institution's collected online mentions and content.	Categorized the data collected using the following rules. • Owned and Audience tweets, retweets, non-Twitter content, and websites • Athletics conversation • Prospective student mentions, including inquiry and application mentions • Admitted student mentions, including scholarship recipients and athletes • Alumni engagement on Instagram and Twitter • Alumni news mentions Prospective student, admitted student, and alumni mentions are identified using a proprietary taxonomy created by Campus Sonar.

STEP	DESCRIPTION	PROCESS
Validate Data	Manually validate data to check its relevancy and accuracy to the institution.	Created an analysis dashboard template in Brandwatch to validate data collected. The analyst validated the social listening data by reviewing the following in each institution's dashboard. • Top news stories • Rule execution and mention categorization • Filters applied in the dashboard • Top 50 sites • Top 100 Twitter authors by number of mentions • Enrollment • Prospective, from a sample of 100 mentions • Admitted, from a sample of 100 mentions • Alumni engagement, from a sample of 100 mentions • News, from a sample of 100 mentions Mentions incorrectly categorized were adjusted to the correct category. Irrelevant mentions or authors were categorized as irrelevant and excluded from the dataset for the institution.
Capture Metrics	Capture 55 pre-defined metrics for each institution.	Used each institution's dashboard to gather the required metrics and enter the data into an Excel spreadsheet.

DATA ANALYSIS

METRICS GATHERED

The metrics gathered spanned several categories, including the following, for both athletics and non-athletics conversation.

- Athletic Affiliation
- Total Conversation Volume
- Number of Unique Authors Contributing to the Conversation
- Sentiment
- Owned versus Earned Conversation Volume and Type
- Page Types (i.e., Twitter, Instagram, news, video, review, etc.)
- Admissions Conversation Volume and Page Types
- Alumni Conversation Volume and Page Types

For each institution in our sample, we derived 85 metrics (detailed on page 38).

Exception: The online conversation for one institution was estimated to be greater than 500,000 mentions per month; this institution's online conversation was sampled at 33 percent. The gathered metrics for this institution were calculated at 100 percent as appropriate.

ANALYSIS NOTES

The average and median value were calculated for each metric across the sample. When the median is within plus or minus 10 percentage points of the average, the average value is used. If the median value is greater than plus or minus 10 percentage points of the average, the median value is used instead.

DELIMITATIONS AND LIMITATIONS

The study examined public online conversations that were available using Brandwatch social listening software. Any private online conversations, or conversation occurring on platforms not indexed by Brandwatch (e.g., Facebook, LinkedIn, Snapchat) were not included in this study. The researchers constructed basic Boolean queries to identify relevant conversations for 65 institutions; in order to balance relevancy with efficiency, and because we examined a 10 percent sample of historic Twitter conversations, not all conversations about each institution were collected.

No representatives from the 65 institutions in this sample were aware of their inclusion in the dataset at the time of data collection, and they did not participate in the study or have any influence on it. The researchers did not collect any institutional data (e.g., admission rates, graduation rates, etc.). Therefore, the researchers have not attempted to draw any conclusions related to the relationship between online conversation and specific institutional strategic objectives.

This study was limited to a quota sample of 65 four-year colleges and universities in the United States. Although the findings from this research may be similar to other colleges and universities within our stratified sample categories, one cannot be absolutely certain that the findings can be generalized to other institutions of a similar type.

LIMITATIONS

The data collection methods used in this study were developed by Campus Sonar for the purpose of the research project. To our knowledge, it has not been used in other industry studies or by other researchers. While we have documented our process here, some details (i.e., the taxonomy developed to categorize conversation types) are proprietary and won't be disclosed. This will limit the ability of others to replicate the study exactly as it was designed.

Because some online conversation sources (e.g., Twitter) are more accessible by social listening software than others (e.g., Facebook, LinkedIn), the conversations we identify may not be representative of the general population, given the different demographics of the users of each platform.

Because of the ex-post-facto research design of this study, relationship and correlation among variables could be calculated, but causation could not be determined.

INSTITUTIONAL CHARACTERISTIC USE AND DESCRIPTIONS

We used four characteristics to segment our sample—the use and source of each is as follows.

CHARACTERISTIC	SOURCE	SOURCE VARIABLE NAME	SOURCE VARIABLE DESCRIPTION
Program Type	CCIHE	BASIC2015	2015 Basic Classification (i.e., Doctoral, Master's, etc.)
Institution Type	IPEDS	CONTROL	Control of Institution (i.e., public or private)
Size by Enrollment	CCIHE	SIZESET2015	2015 Size and Setting Classification
Geographic Region	IPEDS	OBEREG	Region Code

PROGRAM TYPE

Program Type is sourced from CCIHE using the BASIC2015 variable. CCIHE values and descriptions for this variable are in the following chart, as well as how we used BASIC2015 in our study. Read more about the Basic Classification online.

SAMPLE CHARACTERISTIC	BASIC2015 VALUE	DESCRIPTION
Unclassified	0	(Not classified)
Associate's (Entirely or Primarily Confer Associate's Degrees)	1	Associate's Colleges: High Transfer-High Traditional
	2	Associate's Colleges: High Transfer-Mixed Traditional/Nontraditional
	3	Associate's Colleges: High Transfer-High Nontraditional
	4	Associate's Colleges: Mixed Transfer/Career & Technical-High Traditional
	5	Associate's Colleges: Mixed Transfer/Career & Technical-Mixed Traditional/Nontraditional
	6	Associate's Colleges: Mixed Transfer/Career & Technical-High Nontraditional
	7	Associate's Colleges: High Career & Technical-High Traditional
	8	Associate's Colleges: High Career & Technical-Mixed Traditional/Nontraditional
	9	Associate's Colleges: High Career & Technical-High Nontraditional
	10	Special Focus Two-Year: Health Professions
	11	Special Focus Two-Year: Technical Professions
	12	Special Focus Two-Year: Arts & Design
	13	Special Focus Two-Year: Other Fields
	14	Baccalaureate/Associate's Colleges: Associate's Dominant

SAMPLE CHARACTERISTIC	BASIC2015 VALUE	DESCRIPTION
Doctoral	15	Doctoral Universities: Highest Research Activity
	16	Doctoral Universities: Higher Research Activity
	17	Doctoral Universities: Moderate Research Activity
Master's	18	Master's Colleges & Universities: Larger Programs
	19	Master's Colleges & Universities: Medium Programs
	20	Master's Colleges & Universities: Small Programs
Bachelor's	21	Baccalaureate Colleges: Arts & Sciences Focus
	22	Baccalaureate Colleges: Diverse Fields
	23	Baccalaureate/Associate's Colleges: Mixed Baccalaureate/Associate's
Faith	24	Special Focus Four-Year: Faith-Related Institutions
Health	25	Special Focus Four-Year: Medical Institutions & Centers
	26	Special Focus Four-Year: Other Health Professions Institutions
Professional	27	Special Focus Four-Year: Engineering Institutions
	28	Special Focus Four-Year: Other Technology-Related Institutions
	29	Special Focus Four-Year: Business & Management Institutions
Art, Music, & Design	30	Special Focus Four-Year: Arts, Music, & Design Institutions
Professional	31	Special Focus Four-Year: Law Institutions
Professional	32	Special Focus Four-Year: Other Special Focus Institutions
Tribal	33	Tribal Colleges

INSTITUTION TYPE

Institution Type is sourced from IPEDS using the CONTROL variable. IPEDS values and descriptions for this variable are in the following chart, as well as how we used CONTROL in our study. Read more about the Control Classification online.

SAMPLE CHARACTERISTIC	CONTROL VALUE	DESCRIPTION
Public	1	Public
Private Nonprofit	2	Private not-for-profit
Private For-profit	3	Private for-profit

SIZE BY ENROLLMENT

Size by Enrollment is sourced from CCIHE using the SIZESET2015 variable. CCIHE values and descriptions for this variable are in the following chart, as well as how we used SIZESET2015 in our study. Read more about the Size & Setting Classification online.

CHARACTERISTIC	ENROLLMENT	SIZESET2015 VALUE	DESCRIPTION
Excluded from study	NA	0	(Not classified)
		1	Two-year, very small
		2	Two-year, small
		3	Two-year, medium
		4	Two-year, large
		5	Two-year, very large
Very Small	Less than 1,000	6	Four-year, very small, primarily nonresidential
		7	Four-year, very small, primarily residential
		8	Four-year, very small, highly residential
Small	1,000 – 2,999	9	Four-year, small, primarily nonresidential
		10	Four-year, small, primarily residential
		11	Four-year, small, highly residential

CHARACTERISTIC	ENROLLMENT	SIZESET2015 VALUE	DESCRIPTION
Medium	3,000-9,999	12	Four-year, medium, primarily nonresidential
		13	Four-year, medium, primarily residential
		14	Four-year, medium, highly residential
Large	10,000+	15	Four-year, large, primarily nonresidential
		16	Four-year, large, primarily residential
		17	Four-year, large, highly residential
Exclusively Graduate	Varies	18	Exclusively graduate/professional; no undergraduate enrollment

REGION

Region is sourced from IPEDS using the OBEREG variable. IPEDS values and descriptions for this variable are in the following chart, as well as how we used OBEREG in our study.

CHARACTERISTIC	OBEREG VALUE	DESCRIPTION
US Service Schools	0	U.S. service schools
New England	1	New England CT ME MA NH RI VT
Mid-East	2	Mid East DE DC MD NJ NY PA
Great Lakes	3	Great Lakes IL IN MI OH WI
Plains	4	Plains IA KS MN MO NE ND SD
Southeast	5	Southeast AL AR FL GA KY LA MS NC SC TN VA WV
Southwest	6	Southwest AZ NM OK TX
Rocky Mountains	7	Rocky Mountains CO ID MT UT WY
Far West	8	Far West AK CA HI NV OR WA
Outlying Areas	9	Outlying Areas AS FM GU MH MP PR PW VI

METRICS COLLECTED AND CALCULATED FOR EACH INSTITUTION

METRIC	METRIC DESCRIPTION
NCAA Affiliation	NCAA Division the institution participates in.
Non-NCAA Conference 1	Name of first non-NCAA conference the institution participates in.
Non-NCAA Conference 2	Name of second non-NCAA conference the institution participates in.
Total Conversation Volume, Including Athletics	Total number of mentions collected from Aug 2017–July 2018; includes athletics conversation.
Total Conversation Volume/Month, Including Athletics	Total monthly conversation calculated by dividing Total Conversation Volume by twelve; includes athletics conversations.
% Athletics Conversation of Total, Including Athletics	Percent of total conversation that is related to athletics.
% Non-Athletics Conversation of Total	Percent of total conversation that is not related to athletics.
Total Conversation Volume, Excluding Athletics	Total conversation for Aug 2017–July 2018; excludes athletics conversation.
Total Unique Authors, Including Athletics	Total unique authors for Aug 2017–July 2018; includes athletics conversation.
Total Unique Authors, Excluding Athletics	Total unique authors for Aug 2017–July 2018; excludes athletics conversation.
Month with Most Mentions, Including Athletics	Month from Aug 2017–July 2018 with the most mentions; includes athletics conversation.
Month with Least Mentions, Including Athletics	Month from Aug 2017–July 2018 with the least mentions; includes athletics conversation.
Month with Most Mentions, Excluding Athletics	Month from Aug 2017–July 2018 with the most mentions; excludes athletics conversation.
Month with Least Mentions, Excluding Athletics	Month from Aug 2017–July 2018 with the least mentions; excludes athletics conversation.
% Positive Sentiment of Total, Including Athletics	Percent of all mentions categorized as positive by social listening software algorithm; includes athletics conversation.
% Positive Sentiment of Total, Excluding Athletics	Percent of all mentions categorized as positive by social listening software algorithm; excludes athletics conversation.
% Neutral Sentiment of Total, Including Athletics	Percent of all mentions categorized as neutral by social listening software algorithm; includes athletics conversation.
% Neutral Sentiment of Total, Excluding Athletics	Percent of all mentions categorized as neutral by social listening software algorithm; excludes athletics conversation.
% Negative Sentiment of Total, Including Athletics	Percent of all mentions categorized as negative by social listening software algorithm; includes athletics conversation.
% Negative Sentiment of Total, Excluding Athletics	Percent of all mentions categorized as negative by social listening software algorithm; excludes athletics conversation.

METRIC	METRIC DESCRIPTION
% Total Conversation Owned, Including Athletics	Percent of total conversation generated from owned (i.e., institutionally-managed) channels; includes athletics conversation.
% Total Conversation Athletics—Owned	Percent of athletics conversation from owned authors.
% Total Conversation Owned, Excluding Athletics	Percent of owned (i.e., institutionally-managed) conversation; excludes athletics conversation.
% Total Conversation Earned, Including Athletics	Percent of total conversation generated from earned channels; includes athletics conversation.
% Total Conversation Athletics—Earned	Percent of athletics conversation earned.
% Total Conversation Earned, Excluding Athletics	Percent of earned conversation; excludes athletics conversation.
# Owned Authors on Author List	Number of unique owned authors.
% Tweets of Owned Conversation, Including Athletics	Percent of owned conversation generated by owned tweets; includes athletics conversation.
% Tweets of Owned Conversation, Excluding Athletics	Percent of owned conversation generated by owned tweets; excludes athletics conversation.
% Retweets of Owned Conversation, Including Athletics	Percent of owned conversation generated by retweets (from anyone) of owned tweets; includes athletics conversation.
% Retweets of Owned Conversation, Including Athletics, Excluding Owned Authors	Percent of owned conversation generated by audience retweets of owned tweets; includes athletics conversation, excludes owned authors.
% Retweets of Owned Conversation, Excluding Athletics	Percent of owned conversation generated by retweets (from anyone) of owned tweets; excludes athletics conversation.
% Retweets of Owned Conversation, Excluding Athletics and Owned Authors	Percent of owned conversation generated by audience retweets of owned tweets; excludes athletics conversation and owned authors.
% Non-Twitter Content of Owned Conversation, Including Athletics and Excluding Websites	Percent of owned conversation generated from web content (non-Twitter and website) by Owned accounts; includes athletics conversation.
% Non-Twitter Content of Owned Conversation, Excluding Athletics and Owned Websites	Percent of owned conversation generated from web content (non-Twitter and website) by owned accounts; excludes athletics conversation.
% Websites of Owned Conversation, Including Athletics	Percent of owned conversation generated from owned websites; includes athletics conversation.
% Websites of Owned Conversation, Excluding Athletics	Percent of owned conversation generated from owned websites; excludes athletics conversation.
# Unique Earned Authors, Including Athletics	Number of unique earned authors; includes athletics conversation.
# Unique Earned Authors, Excluding Athletics	Number of unique earned authors; excluding athletics conversation.

METRIC	METRIC DESCRIPTION
% Tweets of Earned Conversation, Including Athletics	Percent of earned conversation generated by tweets from non-owned accounts; includes athletics conversation.
% Tweets of Earned Conversation, Excluding Athletics	Percent of earned conversation generated by tweets from non-owned accounts; excludes athletics conversation.
% Retweets of Earned Conversation, Including Athletics	Percent of earned conversation generated by retweets (from anyone) of non-owned tweets; includes athletics conversation.
% Retweets of Earned Conversation, Excluding Athletics	Percent of earned conversation generated by retweets (from anyone) of non-owned tweets; excludes athletics conversation.
% Non-Twitter Content of Earned Conversation, Including Athletics	Percent of earned conversation generated from web content (non-Twitter) from non-owned accounts; includes athletics conversation.
% Non-Twitter Content of Earned Conversation, Excluding Athletics	Percent of earned conversation generated from web content (non-Twitter) from non-owned accounts; excludes athletics conversation.
% Owned/Earned Conversation Alignment, Including Athletics	Percent of top five owned topics and top five earned topics that are the same; includes athletics conversation.
% Owned/Earned Conversation Alignment, Excluding Athletics	Percent of top five owned topics and top five earned topics that are the same; excludes athletics conversation.
% Total Conversation from Twitter, Including Athletics	Percent of total conversation from Twitter for the sample; includes athletics.
% Total Conversation from Twitter, Excluding Athletics	Percent of total conversation from Twitter for the sample; excludes athletics.
% Total Conversation from Instagram, Including Athletics	Percent of total conversation from Instagram for the sample; includes athletics.
% Total Conversation from Instagram, Excluding Athletics	Percent of total conversation from Instagram for the sample; excludes athletics.
% Total Conversation Non- Twitter or Instagram, Including Athletics	Percent of total conversation that's not from Twitter or Instagram for the sample; includes athletics conversation.
% Total Conversation Non- Twitter or Instagram, Excluding Athletics	Percent of total conversation that's not from Twitter or Instagram for the sample; excludes athletics conversation.
% Non-Twitter/Instagram Mentions—Blog, Excluding Athletics	Percent of non-Twitter or Instagram mentions from blogs for the sample; excludes athletics conversation.
% Non-Twitter/Instagram Mentions—Blog, Including Athletics	Percent of non-Twitter or Instagram mentions from blogs for the sample; includes athletics conversation.
% Non-Twitter/Instagram Mentions—Forum, Excluding Athletics	Percent of non-Twitter or Instagram mentions from forums for the sample; excludes athletics conversation.

METRIC	METRIC DESCRIPTION
% Non-Twitter/Instagram Mentions—Forum, Including Athletics	Percent of non-Twitter or Instagram mentions from forums for the sample; includes athletics conversation.
% Non-Twitter/Instagram Mentions—General, Excluding Athletics	Percent of non-Twitter or Instagram mentions from general sites for the sample; excludes athletics conversation.
% Non-Twitter/Instagram Mentions—General, Including Athletics	Percent of non-Twitter or Instagram mentions from general sites for the sample; includes athletics conversation.
% Non-Twitter/Instagram Mentions—Image, Excluding Athletics	Percent of non-Twitter or Instagram mentions from images for the sample; excludes athletics conversation.
% Non-Twitter/Instagram Mentions—Image, Including Athletics	Percent of non-Twitter or Instagram mentions from images for the sample; includes athletics conversation.
% Non-Twitter/Instagram Mentions—News, Excluding Athletics	Percent of non-Twitter or Instagram mentions from news sites for the sample; excludes athletics conversation.
% Non-Twitter/Instagram Mentions—News, Including Athletics	Percent of non-Twitter or Instagram mentions from news sites for the sample; includes athletics conversation.
% Non-Twitter/Instagram Mentions—Review, Excluding Athletics	Percent of non-Twitter or Instagram mentions from review sites for the sample; excludes athletics conversation.
% Non-Twitter/Instagram Mentions—Review, Including Athletics	Percent of non-Twitter or Instagram mentions from review sites for the sample; includes athletics conversation.
% Non-Twitter/Instagram Mentions—Video, Excluding Athletics	Percent of non-Twitter or Instagram mentions from video sites for the sample; excludes athletics conversation.
% Non-Twitter/Instagram Mentions—Video, Including Athletics	Percent of non-Twitter or Instagram mentions from video sites for the sample; includes athletics conversation.
% Twitter Mentions—Female, Including Athletics	Percent of Twitter mentions from authors who identify as Female; includes athletics conversation.
% Twitter Mentions—Male, Including Athletics	Percent of Twitter mentions from authors who identify as Male; includes athletics conversation.
# Alumni Engagement, Including Athletics	Mentions of or from self-identified alumni on Twitter or Instagram; includes athletics conversation and excludes owned authors.
# Alumni News, Including Athletics	Number of mentions of or from self-identified alumni on news sites; includes athletics conversation and excludes owned authors.
# of Admissions Mentions, Including Athletics	Number of mentions of or from prospective or admitted students on Twitter, Instagram, or Forums; includes athletics conversation and excludes owned authors.

METRIC	METRIC DESCRIPTION
% Total Admissions Mentions from Prospective, Including Athletics	Percent of total admissions mentions of or from prospective students; includes athletics conversation.
% Total Admissions Mentions from Admitted, Including Athletics	Percent of total admissions mentions of or from admitted students; includes athletics conversation.
# of Prospective Mentions, Including Athletics	Number of mentions of or from prospective students on Twitter, Instagram, or Forums; includes athletics conversation.
# of Prospective Mentions, Excluding Athletics	Number of mentions of or from prospective students on Twitter, Instagram, or Forums; excludes athletics conversation.
# Prospective Twitter and Instagram Mentions, Including Athletics	Number of mentions of or from prospective students on Twitter and Instagram; includes athletics conversation.
# Prospective Forum Mentions, Including Athletics	Number of mentions of or from prospective students on Forums; includes athletics conversations.
# of Admit Mentions, Including Athletics	Number of mentions of or from admitted students on Twitter, Instagram, or Forums; includes athletics conversation.
# of Admit Mentions, Only Athletics	Number of mentions of or from admitted students on Twitter, Instagram, or Forums; only athletics mentions.
% Admit Athletics Mentions	Percent of Admit mentions that are athletics related.
# of Admit Mentions, Excluding Athletics	Number of mentions of or from admitted students on Twitter, Instagram, or Forums; excludes athletics conversation.
% Admit Mentions, Excluding Athletics	Percent of Admit mentions that are not athletics related.
# Admit Twitter and Instagram Mentions, Including Athletics	Number of mentions of or from admitted students on Twitter or Instagram; includes athletics conversation.
# Admit Forum Mentions, Including Athletics	Number of mentions of or from admitted students on Forums; includes athletics conversation.

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