

LIKE, COMMENT, ENROLL: AN ANALYSIS OF HOW HIGHER EDUCATION  
INSTITUTIONS ADVERTISE THEMSELVES ON SOCIAL MEDIA

by


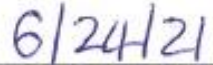
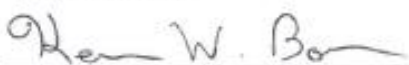
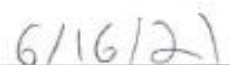

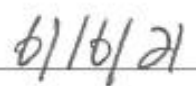
Zachary R. Cober

A thesis submitted to the faculty of Radford University in partial fulfillment of the  
requirements for the degree of Master of Science in the School of Communication

Thesis Advisor: Dr. Twange Kasoma

June 2021

© 2021, Zachary R. Cober

	
Dr. Twange Kasoma	Date
Thesis Advisor	
	
Dr. Kevin Bowers	Date
Committee Member	
	
Michael Meindl	Date
Committee Member	

### **Abstract**

Social media, specifically Facebook, has become an invaluable tool in any industry for firms to communicate messages to their clients or potential clients. Higher education is no different, and institutions should expect to use Facebook as a part of their messaging and advertising strategies with potential and prospective students. Past research has indicated that both traditional and non-traditional students look for specific factors and elements within higher education, such as academic reputation and costs, to make their enrollment decision. This research surveys a sample of schools across multiple different types of higher education institutions (4-Year Public, 4-Year Private Non-Profit, 4-Year Private For-Profit, 4-Year HBCU, 2-Year Public, and All-Online) to better understand the current practices and subjects that different types of institution use in their Facebook content. The content of these posts is qualitatively analyzed through a grounded theory framework to better understand how the posting behavior is similar or different across institutional types, and how these posts align with student decision-making factors. This research indicates that the most significant differences in content and messaging techniques are between the 4-Year institutions versus the All-Online and 2-Year Public institutions. The latter two institutional types appear to target the decision-making factors most relevant more directly to students and manage to more effectively target both traditional and non-traditional students compared to 4-Year institutions.

Zachary Cober, M.S.

School of Communications, 2021

Radford University

### **Dedication**

To Dr. Kasoma: Thank you for being here from the start. Your wisdom, patience, expertise, kindness, and patience have been essential in taking this project from idea to reality. Your contribution cannot be overstated.

To Dr. Bowers: Thank you for signing onto this project with little information but knowing the impact it would have on a prospective graduate.

To Professor Meindl: Thank you for shaping this project into the best form it could take both in class and as a member of my committee.

To Dr. Dunn and Dr. Brummette: Thank you both for your essential advice, recommendations, and guidance in how I would begin this research and assemble my thesis committee.

To my family, friends, coworkers, and classmates for all the support and knowledge you have shared before, during, and after this project. Thank you to my partner Sara for being there next to me the entire time, and for the rest of my life.

## Table of Contents

Abstract.....	2
Dedication.....	3
Table of Contents.....	4
Chapter 1. Introduction.....	5
Statement of the Problem.....	5
Significance of Study.....	6
Chapter 2. Literature Review.....	8
Chapter 3. Pilot Study.....	23
Chapter 4. Methodology.....	39
Chapter 5. Results.....	53
Results for Each Category of Institution.....	54
Grounded Theory Analysis of the Results.....	64
Discussion.....	72
References.....	77
Appendices.....	86
Appendix A: Pilot Study Coding Sheet.....	86
Appendix B: Full Coding Instructions.....	92
Appendix C: Intercoder Reliability Calculations.....	94
Appendix D: Updated Thesis Coding Sheet.....	95
Appendix E: Thesis Schedule.....	100

## **Chapter 1. Introduction**

### **Statement of the Problem**

Higher education is currently facing a widely predicted enrollment cliff that threatens the solvency of institutions nationwide. Due to multiple factors primarily related to the 2008 financial crisis, including a declining birthrate and increased economic inequality, most experts are predicting a rapid drop in traditionally college-aged students. As reported by Missy Kline at College and University Professional Association for Human Resources (2019), most states are expected to see a decline in college-going students over the next few years. Not all colleges will be affected this negatively, but those that are affected will potentially not survive the impact of this decline. As reported by Jill Barshay at The Hechinger Report (2018), elite and selective colleges will likely remain relatively undisturbed, but regional 4-year schools are most at risk and several have already closed due to this declining enrollment and decreased tuition revenue.

These issues were present already, but have only become more exacerbated due to the COVID-19 pandemic. According to Megan Adams at the EAB (2020), struggles related to the necessitated switch towards remote learning during the pandemic has led to a temporary increase in the amount of students dropping out of high school. Additionally, pandemic-related economic concerns have increased the number of students delaying enrollment to work for some amount of time before potentially returning to school. In some cases, these concerns not only delay the enrollment in higher education, but pose increased inaccessibility to college affordability that prevent enrollment entirely (Adams, 2020). While the enrollment numbers are declining for traditional “college-aged” students in their late teens to early 20s that complete a degree full time in 4 years, the enrollment of non-traditional students including older students, first-generation

students, part-time students, and/or parents returning to school is a growing student population (Seale, 2021).

### **Significance of Study**

Colleges, universities, and other institutions of higher education face a dire threat to their student enrollment and financial solvency. The schools that hope to survive will need to effectively use all of the recruitment tools at their disposal, as well as innovate on new recruitment tools in order to remain competitive. Social media has in the past two decades become an established tool for promotion and recruitment efforts, persuading prospective students across a range of geographic and demographic populations. Social media allows institutions to reach any potential student in an affordable manner, and also allows institutions to reach non-traditional students just as effectively as traditional students (Barnes & Lescault, 2011). Despite this, it is likely that most higher education institutions are not using social media as effectively as possible, and may not be reaching all audiences of potential students.

This research was prompted by a gap in the scholarly literature for a recent and comprehensive nationwide comparative examination of social media practices by different types of higher education institutions. Different types of institutions have different benefits to offer their student body, and these different benefits have different persuasive effects on different audiences of potential students. In order to understand how schools can more effectively use the tools at their disposal in order to reach out and persuade potential students to enroll, it is important to first understand how potential students make their enrollment decisions, and what messages institutions are currently communicating on social media.

From this research, it is apparent that the traditional 4-year colleges most threatened by the enrollment cliff are not fully reaching out to the growing populations of non-traditional

students. Additionally, for the student populations they are reaching out to, these schools are not communicating persuasive messages related to the factors those students use to make their enrollment decisions.

It is beneficial for professionals working at each type of institution to understand what benefits they offer to prospective students and how to communicate those benefits in a persuasive manner. It is also beneficial for these professionals to understand the benefits and persuasive communication of their potential competition, both from other schools in their same type of institution as well as alternative types of institutions that target the same potential students.

The contribution of this study is to provide a comparative look at a sample of how colleges and universities are currently using social media, specifically Facebook, across different institution types. Additionally, this study presents a qualitative analysis of the content in the sampled Facebook posts, to provide a deeper understanding of current practices. This study compares that qualitative analysis of content with the literature covering what factors students most often use when making their enrollment decisions, in order to determine when schools are using Facebook as an effective persuasive tool. Findings from this study should allow for professionals in the field of higher education to critically understand and assess the social media practices of their institutions, as well as that of their competition, in line with how traditional and non-traditional students use social media to make their college decisions.

## **Chapter 2. Literature Review and Theoretical Framework**

The purpose of this literature review is to bring together and contextualize past research that has been done into social media advertising, specifically Facebook, and how it relates to higher education institutions. Social media advertising (SMA) is the act of firms, brands, or people advertising products or services online via social networking channels (Shaw, 2017). Bodies of scholarship reviewed include social media advertising particularly via Facebook, SMA in the destination and tourism industry (the implication is that prospective students perceive higher education institutions as destinations), users' responses to SMA, and higher education social media activity. The theoretical frameworks included are grounded theory, elaboration likelihood model, diffusions of innovations, and social information processing theory. The literature review concludes with the four research questions that will guide this study.

### **Theoretical Framework**

Grounded theory provides a systematic method for researchers in the social sciences to analyze the qualitative data they will use to develop their hypotheses. Rather than the testing of predefined theories, grounded theory relies on "the discovery of theory from data" in order to produce effective, scientific results from qualitative data (Martin & Turner, 1986, p. 142). Corbin and Strauss (1990) elaborated how these defined procedures allow for theoretical study into social phenomena through the coding of data from multiple types of sources (pp. 7-8). This research will primarily follow the coding and analysis techniques as defined by grounded theory in order to analyze and determine trends in the content and tone of Facebook advertisements by higher education institutions.

Wilkins et al. (2020) examined the different effects of social media advertisements as determined by periphery versus central cues. Within the elaboration likelihood model, audiences



interpret messages differently based on whether the sender or the content of the message fall within their central processing route or if they fall outside of that into their periphery processing. The researchers concluded that peripheral advertisements can influence how users interpret messages and advertisements on social media. Even if social media posts by institutions do not take up a person's main focus while they are browsing social media, they have the ability to influence how those people think about their plans to attend institutions in the future.

The diffusion of innovations theory gives us an understanding of how different institutions will vary in how quickly and to what degree they roll out social media advertising strategies, based on numerous factors such as their leadership, target audience, and marketing capabilities. Institutions that are more adaptive, technology-oriented, and/or financially well off are likely to adopt these strategies more quickly and to a greater degree, while institutions that are more traditional or in less metropolitan areas are likely to adopt these practices more slowly and possibly wait until it seems like a necessity (Sirk, 2020).

Chuang (2020) applied social information processing theory to the relationship between firms and their customers or clients. Based on their data, a firm's social media agility has the ability to create and strengthen relationships between that firm and their customers. In the case of higher education, the decision to enroll can happen long before application time or the first campus tour, and these institutions have the ability to form non-verbal, ongoing relationships with potential students. Additionally, institutions have the ability to continue developing these relationships with students and alumni, with potential benefits for both those students and alumni as well as the school.

### **General Social Media Advertising**

Suryono et al. (2020) conducted interviews with firms of varying sizes, academics, advertising practitioners, and social media experts to collect data on how firms can create effective social media advertisements. They found that Facebook, among others, provide effective platforms to advertise on and that focus on the visual elements of advertisements is essential. High quality photography and videos tagged with appropriate keywords are important elements to visibility and discoverability. Additionally, endorsements and testimonials are effective supplementary materials to influence audience decisions.

Voorveld et al. (2018) examined the different types of advertisements and engagement across multiple different social media platforms and found the results of each highly contextual and disparate from each other. They concluded that there is no singular “social media” experience, and since each platform has different models and expectations, that each advertising campaign is effectively different from each other, rather than all falling under a universal social media campaign. Specific to Facebook, their findings indicated that it ranks higher on the dimensions of social interaction, topicality, and pastime usage, meaning that people use it to engage with others they know, stay up to date on information and trends, and fill empty moments during their day. It had moderate scores on the dimension of causing negative emotions in its users, related to viewing disturbing or unwanted content (p. 45).

Balaban and Racz (2020) compared the advertising efficacy of two Instagram (a Facebook-owned platform) advertising campaigns, one from a brand account and one from a popular influencer account who posts often related material. An influencer is a person whose primary occupation consists of cultivating an audience on social media and engaging with them through a mix of organic “lifestyle” posts and integrated marketing posts. Balaban and Racz

found that in test audiences of women between the ages of 16 to 32 years old, the influencer account was more effective than the brand account in promoting the product, and they suggest utilizing influencers as a replacement or supplement to traditional brand posts and campaigns. While higher education institutions are not able to use influencers in the same way as other products and brands do, this potentially indicates that institutions can benefit from advertisements and/or posts that seem more personable or come from individual people rather than just the institution itself.

Mendelson and Bolls (2003) examined the effects of advertisements on young adults who are in lower socioeconomic groups. When advertisements are effective, they generally create a need to consume a product or engage in a behavior, which is then satisfied by consuming that product or engaging in that behavior. However, Mendelson and Bolls theorized that when a person is unable to satisfy those created desires, it can have negative effects on their well-being or attitudes. Since higher education is far more expensive than most advertised goods and services, it is very likely this effect could appear in a great number of potential students, especially in those who fall into those lower socioeconomic statuses.

### **Destination Advertising via Social Media**

Similar to higher education institutions, destination, travel, and vacation advertising campaigns are attempting to convince their audience to make a fairly significant investment of both money and time, and often require the customer to travel and stay at a specific geographic location. While it would not be entirely accurate to say college is one big vacation, the two industries share similar goals and hurdles in convincing their audience to make an investment in the product they are advertising, and are more similar to each other than most other products. Examining destination and tourism advertisements, Sarbu et al. (2018) emphasized the

importance of advertising on the most appropriate platforms, which they determined to be joint campaigns through a combination of Facebook and Instagram. They also found potential success in augmented and virtual reality to show their audience the potential of a destination before traveling (p. 1027).

Wang and Lehto (2020) examined the reception and efficacy of destination-based advertisements on audiences based on the distance between audience and destination, both in terms of physical location and time. Potential students will similarly receive the message of an advertisement differently depending on how soon they will be applying, and how far the institution is from where they currently live. The geographic location of a school will affect the decision of a student to enroll and commit, based both on travel considerations as well as the desirability of the location itself. Since Facebook and other social media sites are able to tailor ads based on both the location and the age of the user, this means that there is incentive to not just create effective posts, but to target them towards the correct demographics of users.

Wang and Lehto (2020) also suggested that advertisements can modify people's favorability toward their destination even after they have already decided to travel to the destination. For outreach towards students who have already made the decision to attend higher education, this implies that social media outreach can be a key factor in influencing how students perceive different schools and where that student will choose to attend. Just like the researchers discuss for destination experiences, a higher education institution cannot be fully experienced prior to enrollment and arrival; so in addition to creating a positive attitude, it is important to create realistic expectations and reduce uncertainties in the audience (p. 1443).

Chu et al. (2020) emphasized the importance of social and relational factors when it comes to cultivating an audience on social media for hospitality, tourism, and travel industries.

Their research mentions tour operators building positive relationships with people online as well as travelers sharing information and reviews with one another as having a positive effect on brand loyalty and driving consumer decisions. Applying this to higher education institutions, there is a suggestion that schools can benefit from admissions counselors and other social media practitioners engaging with potential students, as well as current students and alumni sharing their experiences online for potential students to see. While not in the tourism industry, school and institutional recruiting can benefit from the lifelong brand loyalty and established networks that students and alumni provide.

Hamouda (2018) examined the efficacy of Facebook advertising by the tourism industry using Ducoffe's advertising value model. Hamouda's research found that the entertainment, informativeness, and credibility of advertisements on Facebook had a positive relationship with their efficacy on consumers, suggesting that institutions advertising on Facebook should focus on creating engaging and informative posts containing credible content. Hamouda also emphasized the role of the corporation's reputation on the efficacy of their advertisements. While these studies relate to tourism and not education, both industries are advertising experiences and destinations, rather than tangible goods, and it is likely that research like this has practical applications towards understanding similarly how higher education should advertise on Facebook.

### **Users' Response to Social Media Advertising**

Finding similar results as Hamouda (2018), Yeo et al. (2020) examined consumer perceptions of social media advertisers via questionnaire and concluded that interactivity, information, and brand image/credibility were the major influences on how social media ads were received by their respective audiences. While it is important for institutions to make

engaging ads that attract attention, the factual content of those ads and the name recognition of the institution itself are important factors in a social media campaign.

Talih Akkaya et al. (2017) examined the perceptions social media users have on advertisements and how those perceptions influence their attitudes, behaviors, and decisions related to those advertisements. They concluded that the entertainment value and the information contained within an advertisement, along with the perception that the service advertised has a favorable effect on the economy, affect their attitudes towards advertisements they see on social media. Following this, they concluded that consumer attitude affects consumer behavior, and behavior has a positive relationship with purchase intentions. Since it is generally understood that higher education has a positive impact on the economy, this research seemingly supports the efficacy of social media advertisements by institutions of higher education.

Johnston et al. (2018) used the previously discussed belief-value-attitude-behavior framework to determine how effective social media advertisements are in different cultures with varying levels of widely held uncertainty avoidance. In societies higher in uncertainty avoidance, the infotainment properties of advertisements on social media have a strong effect on audience values and the credibility of the advertiser has a strong effect on audience values and attitudes compared to cultures with lower uncertainty avoidance.

Lancelot Miltgen et al. (2019) used the social-exchange theory and uses and gratifications theory to examine how Facebook advertising efficacy will vary between computer and phone users of the service. A key difference between the two is that generally there is a more negative view of advertising on mobile, and due to the more public and on-the-go nature of that device, advertisements must be delivered at more opportune times and locations in order to find acceptance. This suggests that institutions who are advertising on Facebook should look into

their abilities to specify their ads to certain times or places where their potential audience may be more interested in or receptive to thinking about their choice of college. Additionally, they found that the trust the users had in Facebook itself was a driving factor in the efficacy and acceptance of the advertisements, so if trust in Facebook decreases in the future, then advertising campaigns on the platform will likely be less effective.

Likewise, Zhang et al. (2020) analyzed how the mobility of social media platforms on smartphones affects advertising efficacy. They found similar results that relevant and interesting ads are more effective; however, their study indicates that when there is a perceived invasion of privacy by an ad that knows too much about them, user avoidance increases, and these advertisements are less effective. The time and spatial flexibility users have when it comes to viewing social media and social media ads can reduce their intrusive properties, but real-time ads elevate their concerns over privacy and security.

Stevenson (2010) provided a skeptical perspective of relying simply on Facebook's tools and algorithms, indicating that a larger dialogue is needed between advertising firms and audiences. Facebook advertisements do not provide a two-way interaction model and do not involve integrating yourself into a dialogue with the audience. For that reason, Stevenson considered these sponsored Facebook posts as a display strategy and not a social media campaign. He emphasized the need for a cross-channel approach that involves numerous aspects of online audience interaction, of which sponsored posts constitute just one part.

### **Influences on Students' College Decision**

In recent years, the higher education industry has observed shifts in the decision-making process of prospective students and trends in enrollment rates at various types of institutions and academic programs. An increasing number of students are enrolling in entirely online programs,

and in-person students are increasingly taking at least one online course during their program. Winn et al. (2014) observed that public universities have struggled to reinvent themselves while private and for-profit schools have seen increasing enrollment numbers as institutions have shifted their goals from social education to industrial and professional education. While public universities have not drastically shifted in recruitment strategies or course design, private and for-profit schools have engaged in more experimental and technology-focused strategies for both advertising and academic programs.

A 2014 survey conducted by the Higher Education Research Institute at the University of California at Los Angeles identified academic reputation and job prospects as the top two reasons influencing students' college decisions, but noted that cost and financial aid were quickly growing compared to previous years. The amount of students who consider financial aid to be very important, for example, went from 19% in 1973 to 49% in 2013. Additionally, the survey showed that a larger percentage of students each year are attending colleges that were not their first choice, even when they had been accepted to their first choice school, with most students citing cost or financial aid offered as the reason. In 1993, 72% of the surveyed students were attending their first choice school; while in 2013, 76% of students had been admitted to their first choice school, but only 57% were enrolled there (Harvey, 2014).

A survey of over 100,000 admitted students identified seven main factors that have the most influence on students' decisions, with 80% of the surveyed students citing at least one of the factors. These factors are affordability, availability of a desired program, reputation/academic quality, career outcomes/job opportunities, value of education for cost, feeling of fit, and proximity to home. Additional factors with some level of influence on school decisions included hands-on learning experiences, flexible schedules, a sense of community, and easy access for



family visits (Wyllie, 2018). Each of these factors have a different level of influence based on the student and the school they are looking at; for example, approximately 24% of students attending an in-state public institution cited affordability as a factor on their decision. For students attending a private institution, reputation/academic quality was the most cited factor influencing their decision (Wyllie, 2018).

A longitudinal study by the U.S. Department of Education surveyed students in high school while they were in ninth and 11th grade to determine characteristics that influenced their postsecondary school decision. The top four categories for the “very important” rating were academic quality/reputation, having a desired program of study, job placement, and cost of attendance. Across the entire surveyed student population, 95% indicated that cost of attendance is either “very important” or “somewhat important.” However, when comparing students from different socioeconomic status groups, 73% of the students in the lowest group indicated that cost of attendance is “very important” while only 56% of the students in the highest group indicated the same (LaFave et al., 2018).

The research indicates that when students are choosing which institution they plan to attend after high school, they have to primarily balance their decision between their desires (including factors like academic quality/reputation and desired program of study) as well as practical concerns (for factors such as cost of attendance and job placement). While those desirable factors still have a great deal of influence, the rising cost of tuition is leading to a sharp increase in the influence of those practical factors. While these trends hold true for the general population, they are significantly influenced by the socioeconomic status of the student, and the types of schools those students are looking at. This suggests that for effective recruitment strategies, institutions need to tailor their messaging based on the individual students and larger

student groups they are reaching out to, and make appeals based on the decision factors they are best able to accommodate.

### **Social Media Advertising by Higher Education Institutions**

Nikki Sunstrum and Nick Wilson identified five primary reasons for why social media is an effective recruitment tool for Colleges and Universities: Prevalence, Customer Service, Timeliness, Transparency, and Relatability (Weindling, 2017). Hossler (1999) wrote, “The ability to segment prospective student markets and reach them with targeted, personalized information and recruitment activities is more important than the quality of the paper on which direct mail pieces are printed” (p. 16). While addressing older, non-electronic strategies for student recruitment, his research applies to the ways in which SMA by institutions can effectively reach out to students through newer technologies.

Before the idea of Web 2.0 firmly established the modern idea of social media as a mainstream concept, some universities and institutions took advantage of earlier tools such as blogging in a similar manner as we expect to see SMA used today. Ball State University employed student blogging as a recruitment tool to allow potential students to connect with current students and ask any questions they had about the institution. The two-way communication and authenticity of the interactions compared to traditional ads were noted as successful components and would later go on to define SMA strategies. The relatively low cost of the blogging initiative led to the conclusion that it quickly led to a worthwhile return on investment for the school (Joly, 2006). Brumfield (2005) similarly described other early blogging initiatives at several schools, each with a focus on having actual students blog about their collegiate experiences, as a recruitment and PR tool. The anecdotal conclusions from these experiments supported the idea that these strategies are cost-effective and provide relatable

material for potential and incoming students to read in order to both help them choose a college and then to prepare for college.

Two studies by Barnes and Lescault (2013) examined the social media usage of 4-year accredited colleges and universities in the United States. Their research found that colleges and universities use a wide selection of social media strategies and tools to reach out to potential and prospective students. In addition to recruitment efforts, schools also use these tools to research these students, indicating that social media can be an effective tool not only for convincing young adults to apply at an institution but also in the decision-making process of that institution's admissions process.

A survey in 2011 (Johnson) concluded that 80% of surveyed institutions used Facebook at that point, and overall, these institutions ranked Facebook higher in terms of usefulness compared to most other social media sites and other online tools such as blogs. Another survey conducted that same year by Barnes and Lescault (2011) concluded that 100% of all surveyed institutions employed some type of social media, with Facebook leading as the most popular by far. By this point in time, it could easily be argued within the diffusion of innovations model that Facebook had captured all five categories of consumers, and had become an invaluable tool for both clients and firms.

As of 2013, the researchers have found that most colleges and universities use Facebook and a smaller number are interested in using newer tools and platforms for outreach, a little under half of school officials attribute an increase in enrollment to social media efforts, and around a third of schools have reported that they now spend less on traditional advertisements since they have started using online social media platforms (Barnes & Lescault, 2013a, p. 92). Nyangau and Bado (2012) also surveyed higher education institutions and identified social media

as a particular effective strategy in recruiting potential international students, due to the lack of restrictions social networks face in global communication compared to other outreach strategies (p. 42). Due to these factors, 92% of undergraduate admissions officers stated that social media is worth the investment their institution has made in it (Barnes & Lescault, 2013b, p. 143).

Social media sites such as Facebook have given universities and other post-secondary institutions a newer avenue to reach out directly to prospective students as well as their parents or guardians. Studies such as the one by Dagger and Danaher (2018) have identified social media advertising as a core component of any successful multi-media advertising campaign and highlight both organic as well as sponsored posts as potentially effective tools for reaching customers more directly than other avenues. Kessler (2011) also identified that in addition to direct communication and outreach, Facebook allows for colleges and universities to promote themselves to students in a variety of other ways both directly and indirectly, making it a cheap, effective, and versatile tool.

The research done by Mwenda et al. (2019) aimed to understand the content, tone, and messaging of online recruitment efforts done by universities, in the case of their research, focused specifically on STEM education in Australia. Diel and Katsinas (2018) used a quantitative analysis to focus on commonalities in how universities message and market themselves to students, albeit at in-person events rather than via online tools. Palmer (2012) focused on one specific academic program's attempts to advertise themselves to prospective students via Facebook; the design and deployment of their plan shows promise and the need for more research on the subject.

In addition to social media sites such as Facebook providing colleges with a variety of new ways to learn about and reach out to potential applicants, these sites have also changed the

way students learn about and engage with potential schools before applying or enrolling. A set of case studies by Ferguson (2010) identified an emerging trend of college admissions professionals stating they were losing some control and transparency over their applicant pool. Students in the past typically had to reach out to the school itself to ask questions; they now have the ability to learn about the school via social media and make no official contact with the school until they apply. Each year more students use the internet to research and make their decision of which institutions they plan to apply to, learning about the school through websites and social media pages both official and unofficial. These so called “stealth applicants” are unknown by admissions recruiters until after they have already applied, giving the student more freedom to choose in how they engage with the school, with the side effect of reducing the ability for recruiters to pursue them as a potential student pre-application. Some schools try to push against this perceived loss of control, while others, including the institutions included in these case studies, have attempted to adapt to these trends and complement the techniques of these stealth applicants with newer social networking marketing strategies (pp. 76-77).

Community colleges and technical schools do not have the same recognition or resources that many colleges or universities enjoy, so their efforts to reach out to students and promote their potential merits matter a great deal in ensuring they achieve the enrollment numbers they desire. Hernandez (2017) researched how community college enrollment can be particularly volatile and elastic based on the country’s current economic stability, and what online marketing community colleges can do in order to stabilize and increase their numbers. Tucciarone (2008), meanwhile, focused on the role of community college marketing in relation to other factors in a potential student’s life such as parents, guidance counselors, their finances, and other life situations.

The most significant gap I have found in the current literature is a lack of any study that aims to compare and analyze the SMA content of multiple universities, whether nationwide or specific to any certain region. To address this, this current study will address the following questions:

1. How do different types of institutions tailor Facebook posts to try to appeal to potential undergraduate students?
2. Do different types of institutions differ significantly in the content of their Facebook posts?
3. Do different types of institutions differ significantly in the tone of their Facebook posts?
4. To what degree are different institutions employing Facebook advertising and outreach?

This research project will build upon the history of literature concerning higher education social media advertising by providing a wider analysis of what advertising practices colleges and universities are currently engaging in on Facebook. The significance of this project is to compare and contextualize the content and tone of higher education advertising online in the state of Virginia. While numerous studies exist that have covered the practices of specific schools or campaigns, a wider analysis such as this does not appear to be present.

### Chapter 3. Pilot Study

Before starting the full thesis project, I conducted a smaller pilot study for the purpose of establishing that the thesis project would answer the research questions that I have posed, and that the chosen method of analysis for the project (i.e., a qualitative content analysis rooted in grounded theory) would be done with proven internal validity, in this case, the internal validity establishing the cause-and-effect relationship between my coding scheme and my measured results.

I looked at four different types of institutions: 4-year private, 4-year public, 4-year Historically Black Colleges and Universities (HBCUs), and 4-year Predominantly White Institutions (PWIs). 4-Year Private institutions are bachelor's degree granting schools that primarily receive their funds from non-government entities and private donors or investors, as compared to 4-Year Public institutions, which are bachelor's degree granting schools that receive the core of their funds from the Federal or State governments (TBS Staff, 2019). HBCUs are schools defined by the Department of Education as institutions created before 1964 specifically to serve Black student populations, as compared to PWIs, which are defined by Christopher Brown II, M., & Elon Dancy II (2010) as schools in which the population is 50% or more White students.

I used a Stratified Random Sampling process to separate all available Virginia institutions into my chosen categories, and then chose one school from each of these institution types. All four of the schools chosen were from the state of Virginia, and the pool of institutions was pulled from the database of colleges and universities as maintained by the State Council of Higher Education for Virginia, also known as SCHEV (Colleges & Universities, 2020). The selected schools and their profiles are provided below; for consistency, when possible, all information on

these schools was chosen from the U.S. News & World Report, updated for the 2020–2021 school year, and other sources as indicated.

### **Hollins University**

For 4-year private universities, I chose Hollins University, a small women’s college in Roanoke with currently around 668 undergraduate students. The campus is in a suburban setting close with a campus that is approximately 475 acres. According to the 2021 edition of the U.S. News & World Report’s Best Colleges list, Hollins is currently ranked #102 in the category of National Liberal Arts Colleges and #44 in the category of Best Value Schools. As of 2019, Hollins has an endowment of approximately \$182.7 million. For the 2020-2021 school year, Hollins has tuition and fees at \$40,110 plus \$14,300 for room and board. Hollins University is considered selective and has a student-faculty ratio of 9:1. Around 75% of full-time undergraduate students receive some form of need-based scholarship, and those need-based scholarships are on average around \$32,163 for the year (U.S. News & World Report, 2021).

### **Virginia Commonwealth University**

For the 4-year public category, I chose Virginia Commonwealth University (VCU), a larger, co-ed school in Richmond founded in 1838 (Virginia Commonwealth University, 2020). VCU is in the urban category and has a campus of approximately 169 acres. For the 2020-2021 school year, VCU had a total enrollment of 22,837 undergraduate students. As of 2019, VCU had an endowment of more than \$2 billion. According to the 2021 edition of the U.S. News & World Report’s Best Colleges list, VCU is ranked #160 in the category of National Universities, and #105 in Best Value Schools. The Fall 2019 acceptance rate was 87%, and the student-faculty ratio is around 17:1. Approximately 58% of full-time undergraduate students receive need-



based financial aid, and that need-based financial aid is approximately \$11,162 per student on average (U.S. News & World Report, 2021).

### **University of Virginia**

For my example of the 4-year PWI, I chose University of Virginia (UVA), a highly rated public university in Charlottesville founded in 1819 (University of Virginia, 2020). UVA has an undergraduate enrollment of 17,011 students living on a suburban campus of approximately 1,682 acres. According to the 2021 edition of the U.S. News & World Report's Best Colleges list, UVA ranked #4 in Top Public Schools, #26 on the list of National Universities, and #32 in Best Value Schools. UVA is highly selective with a Fall 2019 acceptance rate of around 24%, and a student-faculty ratio of 14:1. In 2019, UVA had an endowment of around \$7 billion. For the 2020-2021 school year, 36% of full-time undergraduate students received need-based financial aid at an average of \$24,726 per student (U.S. News & World Report, 2021).

### **Virginia State University**

For the 4-year HBCU category, I chose Virginia State University (VSU), a smaller public university in the Richmond area with approximately 3,659 undergraduate students (Virginia State University, 2020). VSU has a suburban setting with a campus size of 231 acres. According to the 2021 edition of the U.S. News & World Report's Best Colleges list, VSU was ranked #35 in Top Public Schools and #24 in Historically Black Colleges and Universities. In 2019, VSU has an endowment of a little over \$57.1 million. In the 2020-2021 school year, its in-state tuition and fees were \$9,056 and out-of-state tuition and fees were \$19,576; 92% of full-time undergraduate students received a form of need-based scholarship, with an average of \$8,195 per student (U.S. News & World Report, 2021).

## Data Collection

The data collected for the pilot study were Facebook posts from each of the above four schools. The tool I have used for data collection is a browser extension called NCapture, which captures webpages and information from social media sites such as Facebook. I pulled the Facebook post data for each of the four schools on March 17, 2021, between 8 p.m. and 11 p.m. Certain schools I had selected at random initially presented errors when NCapture tried to pull their post data, so at least for the purposes of the pilot study, those schools have been skipped. From there, I imported the collected posts into a data and analysis software called NVivo and performed some basic data cleanup. Some posts, potentially due to privacy or sharing settings, pulled incomplete data. In most cases, the row contained data such as comments or post time, but no content from the post itself. I went through the data and for each school eliminated any rows that had inaccurately or not fully captured the school's Facebook post. I then exported the remaining data as a spreadsheet to organize in Excel.

For each of my chosen institutions, I used NCapture to collect as many posts as it was able to, and then coded the 25 most recent posts as of the date of collection, which was on March 17, 2021. For Hollins University, I was able to collect posts ranging from 2/11/2020 to 3/17/2021, and my analysis of the posts consisted of ones ranging from 3/3/2021 to 3/17/2021. For the University of Virginia, I collected posts ranging from 11/2/2020 to 3/17/2021, and my analysis of the posts consisted of a range from 3/3/2021 to 3/17/2021. For Virginia Commonwealth University, my tools were able to gather posts from 1/14/2021 to 3/17/2021, and I coded and analyzed posts ranging from 3/8/2021 to 3/17/2021. For Virginia State University, I captured a range of posts from 3/5/2021 to 3/17/2021, and the coded the posts from 3/5/2021 to 3/17/2021.

## Coding

From Excel, I then began the coding process to categorize the content of the posts I collected. The categories of coding included the following areas: topics of focus (for the text of the post), keywords, links to other social media, links to other websites, types of visual elements, topics of focus (for the visual element), message elaboration route, and mentions of COVID-19. Each of these categories has a set of pre-established answers, of which one or multiple can be selected, depending on the category (a full set of the coding instructions can be found in Appendix B). I then took a sample of the data I had collected, which consisted of three posts for each of the four schools, and with that pre-established coding schema, did preliminary data coding. Following my own preliminary data coding, I recruited two undergraduate volunteers to test code the same data and calculate inter-coder reliability.

The two volunteers I worked with, both Radford University undergraduate students, were recruited from Dr. Kasoma's journalism courses. Both students, a junior and a senior, had working experience with qualitative research from previous courses and projects. I reached out first to one student who connected me with the second via email, stating that I was conducting research for a graduate thesis and explained the need for student volunteers. I explained the process and requirements for their volunteer time and set out a few ways we could do this task remotely or in person. I gave the incentive of lunch or similar form of informal compensation, but neither coder took me up on the opportunity. I then met with the coders for a training session on Saturday, March 20, at 2 p.m., which lasted approximately an hour long. During this session, I explained the coding instructions and walked them through a sample of how a post would be coded. The two coders then independently went through my sample data, coding it based on the training they received and following the typed instructions I provided.

The data that the coders received were the three most recent posts from each of the schools, to provide a snapshot or roughly how schools are currently promoting themselves on Facebook. I used Microsoft Forms (see Appendix A) to easily allow for user-friendly input of the coding data, while also preventing certain errors, such as coding for the content of an image when it was indicated that no images are present. I was then able to export their responses from Forms to an Excel Spreadsheet, where I ran intercoder reliability checks. For the data I collected from my coding volunteers, I used ReCal, which is an online utility created by University of North Carolina, Chapel Hill professor Deen Freelon that computes intercoder/interrater reliability coefficients for various types/levels of data. The fact that ReCal is compatible with Excel, which I used for this study, was particularly advantageous.

I calculated a Holsti's rating of 97.7% and a Krippendorff's Alpha of .89 with a cumulative 97.7% level of agreement for the two student coders, well within the realm of reliability. Variable 12, the student coder assessment of the Message Elaboration Route of each post, had an individual Alpha of .701 and was most responsible for negatively affecting the cumulative Krippendorff's Alpha (see Appendix C). This is attributable to the fact that coding for this element requires some knowledge of communication theory and specific understanding of the elaboration likelihood model; in future studies, this risk to the intercoder reliability could be counteracted with more thorough training in that specific area, or by recruiting sample coders more experienced in that particular theoretical framework. The aggregated intercoder reliability for three coders (i.e., the two student coders and myself) was also above a Holsti's rating of 96% and .87 for Krippendorff's Alpha. Since there is no one universally agreed upon "best index" for measuring the intercoder reliability for studies within the communication field, calculating the reliability with multiple of the most cited methods best ensures that the intercoder reliability

holds up to scrutiny. The relatively high numbers within each of these different measures of reliability demonstrates that the coding method of this study meets the acceptable criteria of some of the most accepted measurements (O'Connor & Joffe, 2020).

**Results of the Pilot Study**

Once I had completed the coding process of the collected posts, I then used these results to determine any trends and patterns of note relating to each of my research questions. These results are included here as Table 1 and Figures 1 and 2:

**Table 1**

<b>Institution</b>	<b>Academic Programs</b>	<b>Campus or On-Campus Facilities</b>	<b>Sports</b>	<b>Philanthropic/Charitable Giving</b>	<b>Geographic Location</b>	<b>Post-Graduation/ Career Opportunities</b>	<b>Cost/ Tuition</b>	<b>Person of Interest</b>	<b>N/A</b>	<b>Combination of 2 or more Topics</b>
Hollins University	1	1	1	1	0	0	0	15	4	2
University of Virginia	0	2	2	1	0	0	0	9	7	4
Virginia Commonwealth University	1	2	2	0	0	1	0	7	3	9
Virginia State University	1	5	0	1	0	1	0	9	3	5
<b>Total</b>	<b>3</b>	<b>10</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>40</b>	<b>17</b>	<b>20</b>

Figure 1

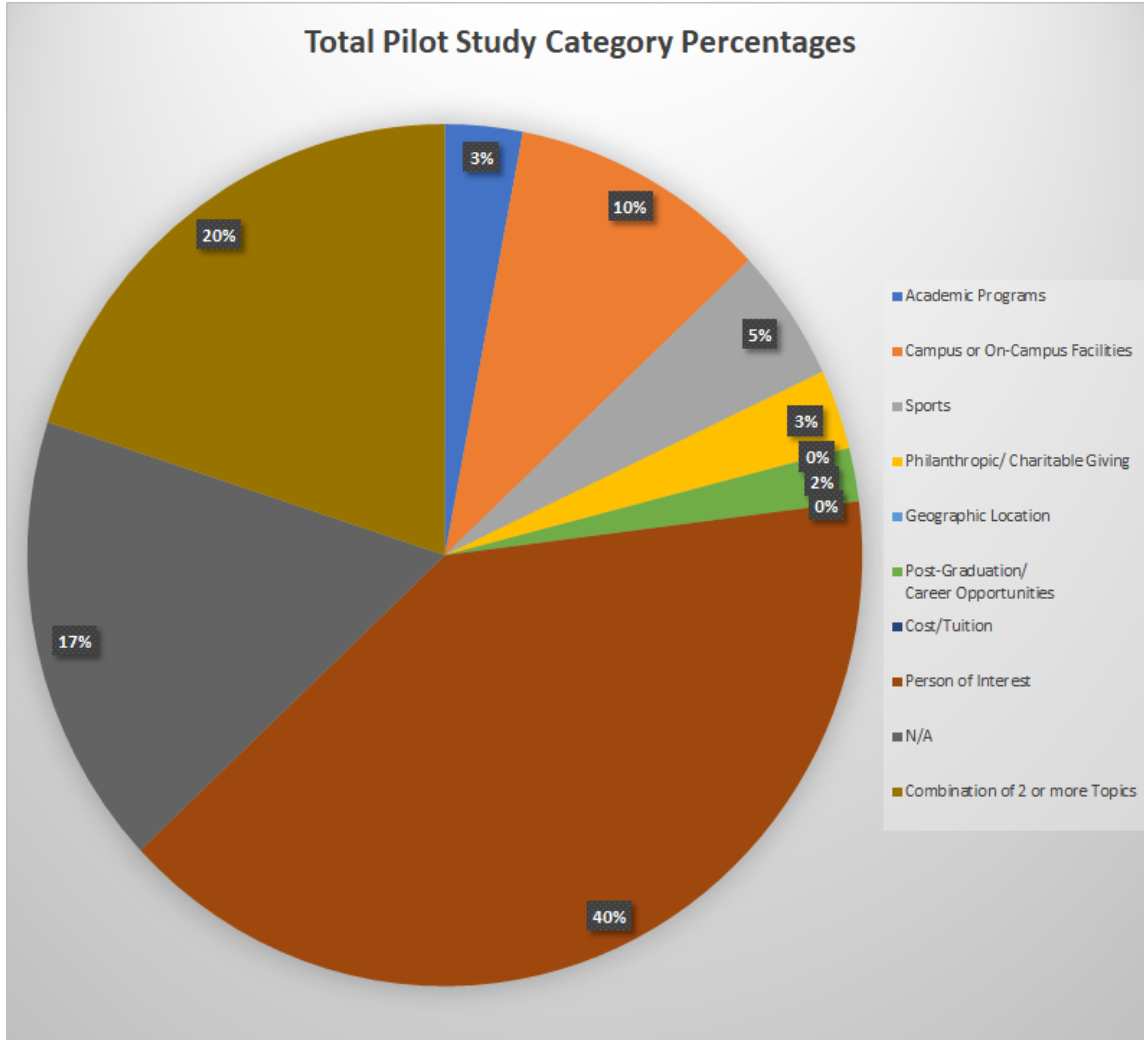
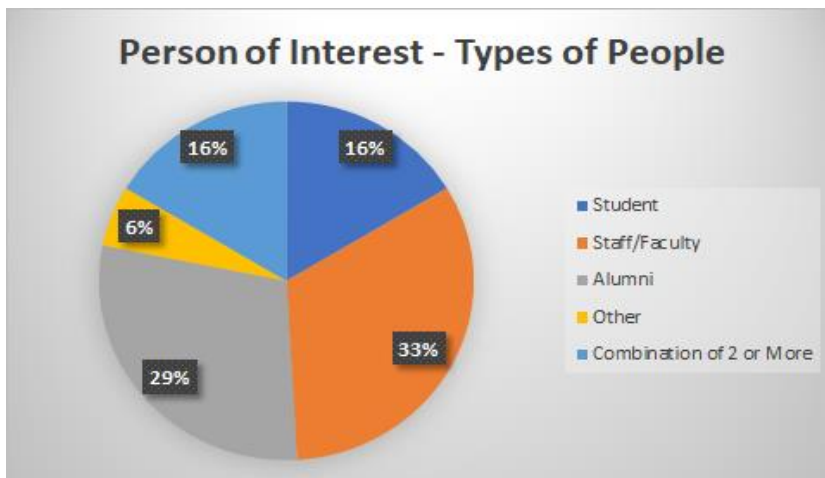


Figure 2



The patterns and trends that I noticed upon analysis of the results were interesting and telling. While I did not observe radical differences in the posting behaviors between different types of each institution, I did notice a disparity between the information that potential students use to make their college decisions, and the information that colleges post via their Facebook pages. As discussed in my Literature Review, studies by Wyllie (2018) and LaFave et al. (2018) indicated that students make their decisions based on factors such as academic quality, availability of desired programs, and cost. The posts of these schools hardly addressed these topics in favor of disproportionately highlighting current and past students (People of Interest) or their Campus/On-Campus Facilities. Specifically, since each type of institution has its own advantages in each of those categories that students look at, I believe the institutions should not only address these topics, but address them proportional to their ability to meet them (e.g., more affordable schools should promote their affordability), while more prestigious schools should use Facebook to promote the quality of their academic programs.

This study aims to answer the following research questions:

### **Research Question 1**

How do different types of institutions tailor Facebook posts to try to appeal to potential undergraduate students?

To answer this question, I looked at the category Topic(s) of Focus for each school, as defined above, and for the coding results of all four schools in this category. For each of these, I analyzed the text of the post to determine if it contained one or more of my defined subjects. Those results are presented in Table 1. From these results, the most apparent trend is that schools primarily post about People of Interest more than any other category or combinations of two or more categories. I find this most interesting, since the sources included in the Literature Review,

including studies by Wyllie (2018), LaFave et al. (2018), and Harvey (2014), addressed that information students use to make their college decision rarely relates to current students, staff, or alumni. While students make their decisions based on factors such as cost and quality of academic programs, those categories were only the exclusive topic of focus in 0% and 3% of all 100 posts surveyed.

The only time Cost/Tuition appeared in any way was in a post that also related to Philanthropic/Charitable Giving; in this case, UVA linked to a news story and described a new endowment fund created for a specific group of students: “The new endowed fund, called the Piedmont Scholars Program, will provide scholarships to students transferring to UVA who have been selected as recipients of UVA’s University Achievement Award.” This post highlights an endowment meant to make their school more affordable for students who perform academically well, and while it does not apply to all current and prospective students, it highlights efforts by the school to address the cost of higher education.

For a potential student looking at various institutions while factoring in cost or affordability, posts such as this could potentially appeal to that decision-making process. Before conducting this research, I would have expected posts such as this to constitute more of the total posts of all the schools surveyed. Because of this, the results of my pilot study would suggest that this is a possible area for reevaluation, because it seems that schools may not be properly targeting the needs of potential students, and likely are not appealing to the strengths of their respective institutions nor to the stated needs of potential students.

## **Research Question 2**

Do different types of institutions differ significantly in the content of their Facebook posts?



This question also initially relies on similar information as Research Question 1 since they both relate to the topic of focus of the posts. As far as I gathered within the Pilot Study, in terms of the topics discussed, I would say that different types of institutions do not differ significantly in the broad content of their Facebook posts. All four schools relied mostly on either a Person(s) of Interest or a Combination of 2 or More Topics. While the exact numbers differ, all four schools rarely, if ever, promoted themselves with Academic Programs, Sports, Philanthropic/Charitable Giving, Geographic Location, Post-Graduation/Career Opportunities, or Cost/Tuition. The only one that differs from this trend is that Virginia State University posted noticeably more often than the other three when it came to the topic of Campus/On-Campus Facilities. I believe all institution types, within the context of the Pilot Study, are likely facing the same issues when it comes to not addressing the needs and desires of potential students and could do more to tailor their posts to their institutional strengths.

Looking at the specific content of the posts by each institution, some differences do emerge between the four schools. Since all the posts I analyzed are from the month of March, during Women's History Month, and since Hollins University is an all-women's school, most of their posts are specifically highlighting alumni as trailblazing women in their respective fields. This likely explains their abundance of Persons(s) of Interest posts, and the higher than usual amount of those posts that are about alumni. The University of Virginia likewise posts about Person(s) of Interest often, but their posts are much more focused on highlighting their staff and faculty. These posts tend to highlight their academic or research Achievements, such as one post from March 13: "We can now 'see' how brain cells communicate in sharp detail in both the healthy and diseased brains," said lead researcher J. Julius Zhu of UVA's Department of Pharmacology." While this does not directly help to recruit potential students, it does indirectly

highlight the knowledge of their professional faculty, and lets students know what kinds of subjects and research the school is invested in. If a potential student is interested in studying the brain, a post such as this could help to motivate them to look into the school's programs.

### Research Question 3

Do different types of institutions differ significantly in the tone of their Facebook posts?

To understand the tone of the posts, I look at the question relating to the elaboration likelihood model, and whether the school is targeting a message towards the central or peripheral route of their audience. The elaboration likelihood model is a framework for examining how different persuasive arguments are considered by the receiving audience, and whether it is thoughtfully considered or based on less logical, peripheral cues (Wilkins et al., 2020). The results of my coding are shown in Table 2.

**Table 2**

Institution	Central Route	Peripheral Route
Hollins University	2	23
University of Virginia	5	20
Virginia Commonwealth University	5	20
Virginia State University	5	20
Total	17	83

I noticed that across the board, all institutions did not differ significantly, and all relied much more heavily on peripheral cues as compared to central cues. Past research into ELM in different age groups has suggested that younger subjects tend to change their opinions more often with peripheral arguments while older subjects tend to find more persuasion in central cues (Chambers, 1995). This suggests that institutions are likely to convince younger potential students with peripheral arguments, but as young adults are at the point of moving towards more central arguments, perhaps a more balanced approach should be considered.

Within the peripheral route, I noticed that the content of the posts skewed more heavily towards persuasive efforts related to heuristics such as Cialdini's principles of social proof, liking, and authority, rather than others such as reciprocity, commitment, or scarcity (Schenker, 2021). While some schools may emphasize their selective nature to target their audience with perceived scarcity of the exact service they offer, this did not appear true for any of the schools sampled in this Pilot Study.

One particular tool for peripheral persuasion is through that of sports teams; when a school has a successful or popular athletics program, they are able to use that to create a positive image of their school in the mind of potential students. In line with the "liking" principle, these institutions can use this positive relationship to help persuade potential students into attending. In this Pilot Study, I noticed University of Virginia in particular emphasizing this persuasive route. In a post from March 11, they said, "As Virginia Men's Basketball is set to play their first game in the ACC Tournament today, get to know Sam Hauser, who was named to the All-ACC First Team and ACC All-Academic Team." In another post that same day they said, "GO HOOS!" Both of these posts are meant to reach out specifically to people who are a fan of their sports

program, and increase the perceived positive view of the school they have perhaps unintentionally formed by following their sports teams.

An example of the “authority” principle is displayed potentially anytime the school emphasizes a faculty or staff member, since they are often doctorate holding experts, or distinguished professionals in their field. Institutions of higher education are in a way predisposed towards this persuasive route, since the institution itself along with their employees are often regarded as authoritative figures. Virginia State University posted about a Nobel Prize chemist who was visiting the campus to give a speech, tying it into programs the school offers. Virginia Commonwealth University highlighted numerous professors working on scientific breakthroughs related to the pandemic, as well as a meeting on their campus between scientists, doctors, community leaders, and First Lady Jill Biden. Even when not discussing or specifically referencing current faculty and staff, each of these posts is intended to position the school and the people there as authoritative and knowledgeable. The message is hinting towards the idea that “this is where discussions happen and decisions are made by important and knowledgeable people.”

I noticed Hollins University employ the “social proof” principle through their Women’s History month posts during the month of March. While highlighting notable alumni, the school also reinforces the fact that many notable and successful women have attended their school. During the period sampled, the Facebook page for the school highlighted students who have gone on to work in medicine, art, theology, music, journalism, dance, theoretical physics, history, ecology, law, literature, business, and mountain climbing. To a lesser extent, the school also highlighted the work and notable achievements of current students and professors. These

posts give the idea that no matter which discipline(s) you are interested in, others have gone and are going to the school, so you will not be alone.

**Research Question 4**

To what degree are different institutions employing Facebook advertising and outreach?

For the Pilot Study, I analyzed the same number of posts per school. I have adjusted this to instead analyze the posts contained within a defined window of time for the full study to better be able to answer this question. For the Pilot Study, I have decided to answer this question through the data I coded regarding the use of additional visual elements. In this case, these visual elements include photographs, illustrations, and video content. For the purposes of this analysis, the increased effort and resources that go into posts that contain these visual elements in addition to text stands in as a proxy for the level of adoption when it comes to technology as a part of their social media activity. Institutions that are using more visual elements in their posts are not necessarily using the platform more often but are using the platform to a more significant degree and are likely investing more time and resources into the platform. The results of this coding can be seen in Table 3.

**Table 3**

<b>Institution</b>	<b>Visual Element</b>	<b>No Visual Element</b>
Hollins University	16	9
University of Virginia	7	18
Virginia Commonwealth University	0	25
Virginia State University	21	4

Total	44	56
-------	----	----

Overall, there is a relatively even divide between posts that did and did not have visual media attached in addition to the text post. Most schools, other than Virginia Commonwealth University, which is the Pilot Study stand-in for 4-year public schools, employed a mix of text only and visually accompanied posts. During the period I analyzed, Hollins University primarily posted historic and modern photographs of alumni while discussing their accomplishments for Women’s History Month. Virginia Commonwealth University did not use any native Facebook videos or photographs at all but did in almost all posts link to their official school website. This usage suggests to me that their institution primarily uses Facebook as a tool to promote their website posts and information, rather than using Facebook as an independent communications platform.

### **From Pilot Study to Full Study**

Overall, I was able to notice the previously mentioned trends in the analysis of my Pilot Study results, but primarily I relied upon this Pilot Study to test my methods as it relates to data collection and analysis. From this Pilot Study, I determined the data collection process would work while making appropriate changes to the methodology as needed for the full study. As discussed, I modified the types of institutions I collected and analyzed posts from, removing one category of institution while adding three others, and I modified the range of posts I would use from each institution. I believed these changes would allow me to find more interesting comparisons between different institution types and to better answer the Research Questions I have posed.

## Chapter 4. Methodology

Moving on from the Pilot Study and into the full thesis, I reflected on what had worked well and what could be improved within this process. First, to create a more comprehensive examination of my topic, I expanded to include more institution types, and more total institutions. I moved from four to six different categories, and from four individual institutions to 24 total institutions. Also, I decided to sample and analyze a specific time period of posts from each school, rather than a set number for each, in order to have a consistent period of examination and to assess the amount each school uses the platform. Additionally, since I looked at one set period of time, all posts should cover roughly the same relevant topics for the academic year or current events; in the Pilot Study, some of the posts came from significantly further back when compared to other schools.

I was interested in whether different types of postsecondary institutions differ significantly in the way they market themselves online, and if so, what those differences are. To do this, my methodology was that of a Qualitative Content Analysis, a research approach where researchers create categories and meaning from the content and context of the gathered data (Bryman, 2015, p. 694). For this project, that approach primarily involved collecting and analyzing public Facebook posts by colleges and universities sorted by a few distinct types of institution, including 2-year public schools, 4-year public schools, 4-year private non-profit schools, 4-year private for-profit schools, 4-year Historically Black Colleges and Universities (HBCUs), and entirely online institutions.

Then through the framework of grounded theory, a qualitative research method that builds hypotheses through the analysis of data, I built a descriptive hypothesis based on the data I collected (Martin & Turner, 1986, p. 142). I indirectly interpreted the posts and each institution

through the diffusion of innovations (e.g., whether different schools adopt social media techniques early or lag behind other institutions) and social information processing theory (e.g., how institutions use Facebook to develop non-verbal relationships with potential students). Additionally, I directly used the lens of the elaboration likelihood model while interpreting the intentions and goals of these posts, specifically, in the categorization of the coding sheet titled “Message Elaboration” (see Appendix A).

### **Sampling Technique**

The primary sampling method for this project has been theoretical sampling, within the broader category of purposive sampling, sampling methods most often used when working within grounded theory (Bryman, 2015, pp. 410-411). In order to create the coding scheme, I first formed a loose theory based on my research questions, and then pulled some amount of data based on what I could access relevant to those questions. From there I developed categorizations and theories based on the coding of the content of the data I had pulled, and then collected further related data.

The sampling technique I used for the colleges themselves is the probability sampling method, stratified random sampling. For this technique of sampling, I divided all possible institutions of higher education within the United States into their respective categories and selected a random school from each of those stratified categories. I downloaded a list of all schools that fit into each category via a database maintained by the Department of Education. I then used a random number generator in order to select four random schools from each of those six categories, for a total of 24 schools with an even number of schools per category in my research pool. For the categories that carried over from my Pilot Study, 4-year public, 4-year private non-profit, and 4-year HBCUs, I decided to use the schools in each of those categories



from the Pilot Study as one of the four schools in the full research project. I selected three new institutions in each of those categories for the full study in addition to the schools I carried over.

When I performed the data collection via NCapture, the collection process failed to capture the data of two of the originally selected schools, Augsburg University from the 4-year private non-profit category and Hutchinson Community College from the 2-year public category. I removed these two schools from the sampling pool and randomly selected one more school to replace the removed institution in each of those two institutional categories. The data collection process for these randomly selected institutions worked, and the final list of 24 institutions was completed.

### **Institutions Sampled**

All of the specific figures for each school listed below come from the U.S. News & World Report, updated for the 2020–2021, with other sources as indicated, such as the numbers for the University of Arkansas eVersity and the University of Florida-Online, which come from College Factual.

The first type of institution I looked at was 2-year public schools, commonly known as Community Colleges or Associate's programs. 2-Year public schools are a type of government-funded institution designed to be affordable programs for post-secondary education with the goal of either transitioning students into the workforce, or continuing their education at a 4-year institution (Department of Homeland Security, 2012). Additionally, I looked at public 4-year Bachelor's granting colleges and universities. These 4-year public institutions are schools that are partially or primarily funded by a state government, although they are rarely exclusively funded through public money, and often receive additional money from private sources (Grove, 2019). The differences between 2- and 4-year public institutions are the typical length the

students attend the school for, the classes and programs they offer, and the degrees that they have the ability to confer.

## **2-Year Public Schools**

### **Grossmont College**

Grossmont is a public 2-year degree granting institution in El Cajon, California with a total enrollment of 11,673 students, 6,162 of them full-time. The yearly tuition and fees during the 2018-2019 school year for in-state students was \$1,386, and out-of-state tuition and fees were \$7,196. The school has an open enrollment policy with a student-faculty ratio of 25:1. Sixty percent of their students receive a need-based scholarship or financial aid, for an average amount of \$2,781.

### **Northeast Wisconsin Technical College**

This community college has a large, city-based campus in Green Bay, Wisconsin. It has a total enrollment of 11,505 students, 2,573 of them full-time. The in-state tuition and fees for the 2018-2019 academic year was \$4,479 with an out-of-state tuition and fees at \$6,492. NWTC has an open admission policy with a student-faculty ratio of 17:1. Around 25% of their students receive need-based financial aid at an average of \$4,303 each.

### **Central Alabama Community College**

This is a 2-year associate degree-granting public institution in Alexander City, Alabama. It has a total enrollment of 1,681 students, 742 of them full-time. The yearly in-state tuition and fees for the 2018-2019 school year was \$4,740 with out-of-state tuition and fees at \$8,610. It has an open admission policy with a student-faculty ratio of 18:1. Around 73% of the enrolled students receive financial aid, with an average amount of \$4,067 per student.

**Augusta Technical College**

Augusta Technical College is a 2-year public institution with a city-based campus in Augusta, Georgia. It has a total enrollment of 4,409 students, with 1,847 of them full-time. The yearly in-state tuition and fees for the 2018-2019 school year was \$2,794 with out-of-state tuition and fees at \$4,930. It has an open admission policy with a student-faculty ratio of 16:1. Around 73% of the enrolled students receive financial aid, with an average amount of \$5,086 per student.

**4-Year Public Schools****Virginia Commonwealth University**

VCU is a 4-year public institution founded in 1838 with a 169-acre urban campus. It has a total enrollment of 22,837 undergraduate students. The 2021 edition of Best Colleges ranked VCU as #160 for National Universities and #105 in Best Value Schools. As of 2019, it had an endowment of over \$2 billion. The yearly in-state tuition and fees was \$14,710 with out-of-state tuition and fees at \$35,358. It has an acceptance rate of 87% with a student-faculty ratio of 17:1. Around 58% of the enrolled students receive financial aid, with an average amount of \$11,162 per student.

**University of Arkansas**

University of Arkansas is a 4-year public institution founded in 1871 with a city-based campus near Fayetteville. It has a total enrollment of 23,025 undergraduate students. In U.S. News rankings, it was ranked #160 in National Universities and #163 in Best Value Schools. It had a 2019 endowment of over \$1.2 billion. The yearly in-state tuition and fees for the 2020-2021 school year was \$9,384 and the out-of-state tuition and fees was \$28,872. It has an acceptance rate of 77% with a student-faculty ratio of 18:1.

**Bemidji State University**

Bemidji is a 4-year public institution founded in 1919 with a rural campus that is approximately 89 acres in size. It has a total enrollment of 4,514 undergraduate students and had a 2019 endowment of \$26.9 million. The U.S. News rankings had it at #86 for Regional Universities Midwest and #22 Top Public Schools. The yearly in-state tuition and fees for the 2020-2021 school year was \$8,940 with out-of-state tuition and fees at \$8,940. It has an acceptance rate of 66% with a student-faculty ratio of 21:1. Around 62% of the enrolled students receive financial aid, with an average amount of \$6,044 per student.

**Eastern Connecticut State University**

Eastern Connecticut State is a 4-year public institution founded in 1889 with a 182-acre suburban campus. It has a total enrollment of 4,800 undergraduate students and a 2019 endowment of \$16.3 million. It was ranked by U.S. News as #90 Regional Universities North and #26 for Top Public Schools. The yearly in-state tuition and fees for the 2018-2019 school year was \$12,304 with out-of-state tuition and fees at \$24,578. It has an acceptance rate of 64% with a student-faculty ratio of 15:1. Around 63% of the enrolled students receive need-based financial aid, with an average amount of \$7,383 per student.

The next two categories of institutions I included are 4-year private non-profit schools and 4-year private for-profit schools. Both of these categories include 4-year private colleges and universities, which are schools that are separate from state or federal budgets, and primarily receive funds from private sources such as student tuition, investments, and private donors (Grove, 2020). The difference between the two is primarily that for-profit colleges have investors and are first and foremost oriented around generating a profit, while non-profit colleges do not

aim to generate a return on investment for their private investors and are usually required to reinvest money from enrollment into the educational mission of the institution (TBS Staff, 2019).

#### **4-Year Private Non-Profit Schools**

##### **Hollins University**

Hollins is a 4-year private institution founded in 1842 with a 417-acre suburban campus. It has a total undergraduate enrollment of 668 students, and the yearly tuition and fees for the 2020-2021 school year was \$40,110. It had a 2019 endowment of over \$182.7 million. It was ranked #102 in National Liberal Arts Colleges and #44 in Best Value Schools. It has an acceptance rate of 78.4% with a student-faculty ratio of 9:1. Around 75% of the enrolled students receive need-based financial aid, with an average amount of \$32,163 per student.

##### **Cedarville University**

Cedarville is a 4-year private institution founded in 1887 with a 441-acre rural campus in southwest Ohio. It had a 2019 endowment of \$35.4 million and was ranked #21 in Regional Universities Midwest and #6 in Best Value Schools. It has a total undergraduate enrollment of 3,879 students, and the yearly tuition and fees for the 2020-2021 school year were \$32,564. It has an acceptance rate of 79% with a student-faculty ratio of 16:1. Around 69% of the enrolled students receive financial aid, with an average amount of \$5,973 per student.

##### **Dordt University**

Dordt is a 4-year private institution founded in 1955 with a 150-acre campus in a rural environment. It was ranked #4 in Regional Colleges Midwest and #17 in Best Value Schools. It has a total enrollment of 1,386 undergraduate students, and the yearly tuition and fees for the 2020-2021 school year were \$32,820. It has an acceptance rate of 74% with a student-faculty

ratio of 12:1. Around 68% of the enrolled students receive need-based financial aid, with an average amount of \$19,398 per student.

### **McMurry University**

McMurry is a 4-year private institution founded in 1923 with a suburban campus around 43 acres in size. It had a 2019 endowment of \$93.8 million and was ranked #13 in Regional Colleges West and #5 in Best Value Schools. It has a total enrollment of 1,166 undergraduate students and the yearly tuition and fees for the 2020-2021 school year were \$28,620. It has an acceptance rate of 45% with a student-faculty ratio of 10:1. Around 81% of the enrolled students receive need-based financial aid, with an average amount of \$17,778 per student.

### **4-Year Private For-Profit Schools**

#### **Atlantis University**

Atlantis is a 4-year private institution. It has a total enrollment of 184 undergraduate students and the average yearly cost was \$13,493. It has an 86% graduation rate (U.S. Department of Education).

#### **Five Towns College**

Five Towns is a 4-year private institution founded in 1972 with a suburban campus around 35 acres in size. It was ranked #41-#53 Regional Colleges North and #16 in Top Performers on Social Mobility. It has a total enrollment of 620 undergraduate students and the yearly tuition and fees for the 2020-2021 school year were \$25,070. It has an acceptance rate of 34% with a student-faculty ratio of 11:1. Around 79% of the enrolled students receive need-based financial aid, with an average amount of \$11,488 per student.

**Hussian College School of Art**

Hussian is a 4-year private school of art. It has a total enrollment of 81 undergraduate students with a \$21,424 average annual cost, and a 57% graduation rate (U.S. Department of Education).

**The North Coast College**

North Coast is a 4-year private institution with a suburban campus. It has a total enrollment of 109 undergraduate students and the yearly tuition and fees for the 2018-2019 school year were \$20,439. It has a student-faculty ratio of 6:1. Approximately 80% of undergraduate students receive need-based aid and the average amount was \$5,754.

HBCUs are institutions established before 1964, whose historic and current principal mission includes the education of Black Americans (U.S. Department of Education). For this study, I looked at HBCUs that are 4-year degree granting institutions, although some 2-year HBCU institutions exist as well outside of this category. Originally in my Pilot Study, as I will discuss further in the next chapter, I included predominantly White institutions (PWIs) as a category of institution for comparison to HBCUs. For the full study, I have removed this PWI category since there was significant overlap between this category and other categories of 4-year schools, and the Department of Education does not provide a comprehensive list of PWIs, so a full and accurate sampling for this category nationwide is not possible.

**4-Year HBCUs****Virginia State University**

VSU is a public 4-year HBCU founded in 1882 with a suburban campus approximately 231 acres in size. It has a \$57.1 million endowment and is ranked #35 in Top Public Schools and #80 in Regional Universities South. The yearly in-state tuition and fees for the 2020-2021 school

year were \$9,056; out-of-state tuition and fees were \$19,576. It has an acceptance rate of approximately 91%. Around 92% of the full-time undergraduate students receive financial aid, with an average amount of \$ 8,195 per student.

### **Florida Memorial University**

FMU is a 4-year HBCU founded in 1879 with a city-based campus near Miami. Florida Memorial University is ranked #54 in Regional Colleges South and #46 in Historically Black Colleges and Universities. The yearly tuition and fees for the 2019-2020 school year were \$16,236. It has a less-selective admissions process.

### **Central State University**

CSU is a 4-year HBCU founded in 1887 with a 638-acre campus in a rural environment. It has an acceptance rate of 57% with a total undergraduate enrollment of 2,033 students. It was ranked by U.S. News as #7-#11 in Top Public Schools and #58-#76 in Regional Colleges Midwest. The yearly in-state tuition and fees for the 2019-2020 school year were \$6,726 with out-of-state tuition and fees at \$8,726. It has a student-faculty ratio of 14:1.

### **Hampton University**

Hampton is a 4-year HBCU founded in 1868 with a 314-acre urban campus in Virginia. It has a total undergraduate enrollment of 3,714 students with an acceptance rate of 36%. It is ranked #217 in National Universities, and #5 in Historically Black Colleges and Universities. It had a 2019 endowment of \$282.5 million, and the yearly in-state tuition and fees for the 2020-2021 school year were \$29,287. It has a student-faculty ratio of 12:1. Around 56% of the enrolled students receive financial aid, with an average amount of \$7,188 per student.

The last category I have included covers institutions that offer their programs and courses entirely and exclusively through remote and online systems, with no typical on-campus



component. While most schools have expanded to have some classes or degrees available online, these schools are ones that exist entirely online, and do not have in-person classes of any kind. This category is of particular note during the current times, since they are particularly equipped for the remote learning that most schools have shifted to during COVID. I anticipated that their Facebook activity should provide some potentially interesting comparisons with other schools given the specific circumstances of the time frame covered in this study.

### **All-Online Schools**

#### **National Paralegal College**

The National Paralegal College is an entirely online program with approximately 700 undergraduate students currently enrolled. It has a \$15,404 average annual cost, with a 54% graduation rate (U.S. Department of Education).

#### **University of Arkansas eVersity**

The University of Arkansas eVersity is an entirely online program with approximately 799 undergraduate students (College Factual University of Arkansas eVersity, 2021).

#### **University of Florida-Online**

UF Online is an online program with 3,926 undergraduate students (College Factual University of Florida-Online, 2021).

#### **Grantham University**

Grantham is an entirely online program with approximately 6,627 undergraduate students. The program has an \$8,684 average annual cost, and a 23% graduation rate (U.S. Department of Education).

## Data Collection

The data collection for the full thesis project was conducted on the evening of April 26, 2021 and was completed in as narrow of a time frame as possible to attain consistent data all collected within a small window of time. Once I had compiled all of the schools in each category, I determined that I would code and analyze all posts made in the 2-week period of April 12 - 26, 2021. The tool I used to gather the data, NCapture, captured a different range and time period of posts from each school, some only successfully grabbing posts from the past few weeks, while some went years back. For each institution, I only used the posts that fell within that defined 2-week period for my analysis, and disregarded the rest.

In the category of the 4-Year Private non-profit schools, for Hollins University, NCapture was able to grab 47 posts between 3/25/2021 - 4/26/2021, and I analyzed 18 of those posts. Cedarville University had 677 posts captured from 8/22/2020 - 4/26/2021, and I analyzed 39 posts. Dordt University had 199 posts captured within the range of 11/12/2019 - 4/26/2021, with 2 posts falling within my window of analysis. McMurry University had 385 posts between 5/1/2019 - 4/26/2021, with 6 posts analyzed for this project.

In the 4-Year Public category of institutions, Virginia Commonwealth University successfully pulled data for the Pilot Study, but then presented issues when attempting to capture this time. So, for this institution, I manually gathered the post data for the 2-week period, which amounted to gathering and analyzing 26 posts. The University of Arkansas had 24 posts from the period between 3/27/2021 - 4/21/2021, with 10 posts analyzed. Bemidji State University had a total of 179 posts between 6/19/2020 - 4/26/2021, with 6 posts analyzed. Eastern Connecticut State University had 194 posts between 4/1/2020 - 4/26/2021, with 12 posts analyzed.

For the 4-Year HBCU category, Virginia State University had 42 posts gathered between 4/12/2021 - 4/26/2021, which is the exact period of analysis, so 42 posts were analyzed. Florida Memorial University had 95 posts between 12/30/2020 - 4/26/2021, with 18 posts analyzed. Central State University had 200 posts gathered between 1/26/2021 - 4/26/2021, with 20 posts in the window of time analyzed. Hampton University had 199 posts captured between 5/20/2020 - 4/23/2021 with 7 posts analyzed.

In the 4-Year Private For-Profit category, Hussian College School of Art had 199 posts between 5/20/2020 - 4/25/2021, with 8 posts analyzed. Atlantis University had 578 posts gathered from 5/11/2018 - 4/23/2021, with 7 posts analyzed. Five Towns College had 41 posts between 2/12/2021 - 4/26/2021, with 8 posts analyzed for the study. The North Coast College had 796 posts between 8/6/2018 - 4/26/2021, with 15 posts analyzed.

In the 2-Year Public category of institutions, Northeast Wisconsin Technical College had 95 posts between 1/26/2021 - 4/26/2021, with 18 posts analyzed. Grossmont College had 48 posts between 2/1/2021 - 4/21/2021, with 8 posts analyzed. Central Alabama Community College had 69 posts between 2/12/2021 - 4/26/2021, with 20 posts analyzed. Augusta Technical College had 185 posts between 12/31/2020 - 4/26/2021, with 35 posts analyzed.

In the All-Online category, National Paralegal College had 2,200 posts between 1/25/2018 - 4/25/2021, with 10 posts analyzed. University of Arkansas eVersity had 98 posts between 1/27/2020 - 4/22/2021, with 6 posts analyzed. The University of Florida-Online had 689 posts between 9/17/2018 - 4/23/2021, with 7 posts analyzed. Grantham University had 441 posts captured between 9/20/2019 - 4/26/2021, with 7 posts analyzed.

**Data Coding**

The data was then coded similarly to how it was done for the pilot study; first the content in the text of the posts was categorized by topic (Academic Programs, Sports, Geographic Location, etc.) and keywords (student-focused, personalized, connections, etc.), and then based on whether they contained any external links or other multimedia. If there were visual formats of multimedia accompanying the text, that visual content was similarly categorized based on the type of media and then the topics contained in the content. After this, both the text and any present multimedia elements were coded for whether they targeted the central or peripheral route, and whether they contained direct or indirect references to the COVID-19 pandemic. For more detail, see Appendix B.

## Chapter 5. Results

### General Overview of Results

There were 357 total posts made between the 2-week period of April 12 - April 26 across the 24 institutions that were collected, coded, and analyzed. Two hundred seventy-two of those posts contained some form of additional visual element, while 85 were text only. Within the posts that contained some kind of visual content, 57 of the posts contained pictures that were illustrations or entirely graphic designs, 73 contained photographs, and 90 contained images that were some combination of both photography and illustrated or graphic elements. In addition to these photographs, 52 posts contained video content. I did not encounter any of the other defined multimedia elements such as audio or polls.

Looking at the main topics of focus, 131 of the posts include two or more topics of focus, but the most referenced topic by itself was Person of Interest, which was the topic of focus in 104 posts. Within these posts, 65 were about student(s), 56 were about staff and/or faculty, 16 were about alumni, 17 were about some other type of person, and 57 were about a combination of two or more types of persons. Twenty-eight of the posts were about Academic Programs, 11 were about Philanthropic/Charitable Giving, 7 were about the Campus or On-Campus Facilities, 4 were about the Geographic Location of the school, 3 were about Sports, 3 were about Post-Graduation/Career Opportunities, and 2 were about the Cost/Tuition. Sixty-four posts did not fit into any of my categories and contained some other textual topic of focus.

Ninety-four of the posts used one of the keywords I identified, or a close synonym. Nineteen of the posts used the term "Community," 18 used the term "Online," 13 used the term "Opportunities," 12 used the term "Alumni," 8 used the term "Affordable," 2 used the term "Connections," 2 used the term "Prestigious," 1 used the term "Hands-on," 1 used the term

“Part-Time,” and 1 used the term “State-of-the-art.” Some of my terms did not appear nor did a close synonym appear; these included “Student-focused,” “Personalized,” and “Graduation Rates.”

One hundred ninety-five of the posts did not link to any external social media or separate website. Five of the posts linked to YouTube, but there were no other links to other social media sites such as Instagram or Twitter. Twenty-two of the posts linked to an external news organization’s website, generally local coverage of recent events or initiatives by the school. One hundred twenty-one posts linked to their own school’s website, and 1 post linked to both their own websites alongside a separate news organization’s website. One post linked to a database or academic publication. Twelve posts linked to some other type of external website not covered by either of those specified categories.

Twenty-eight posts specifically mentioned COVID-19 or the pandemic, while 286 did not mention COVID-19 or the pandemic in any way. Forty-three posts did not explicitly mention COVID-19 or the pandemic, but alluded to it in the text, such as describing measures including social distancing, or the visual element depicted hinted towards the pandemic, such as including photographs of people wearing masks.

When looking at the persuasive elements of the posts, some institutions seemed to target the central route of persuasion in their posts, by including information that would need to be thoughtfully considered by the reader. At other times, institutions seemed to target the peripheral route in their posts, by making posts that predominantly appeal to other forces such as an authoritative voice or recommendation. Looking at all the posts, 115 posts seemed to target the central route, while 242 seemed to target the peripheral cues of potential students and readers.

### **Results for Each Category of Institution**

First, we can look at the below figures for the percentages of which topics of focus were mentioned in the text of the posts by each category of institution.

Figure 1

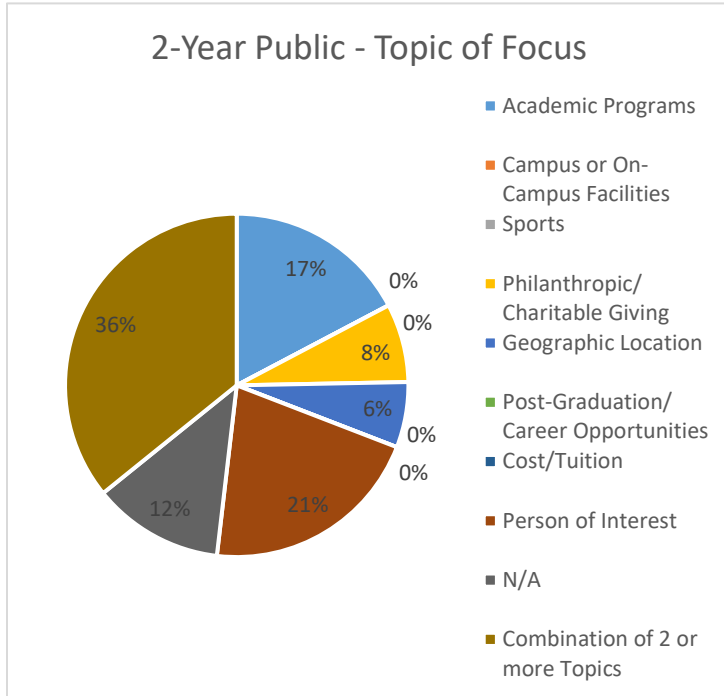


Figure 1.1

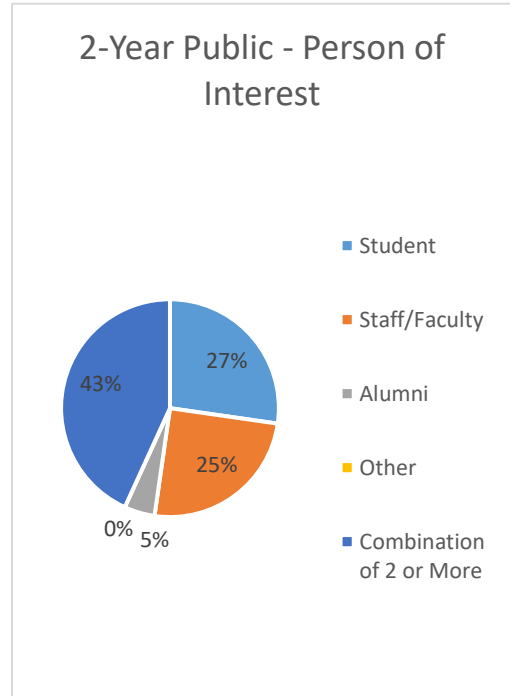


Figure 2

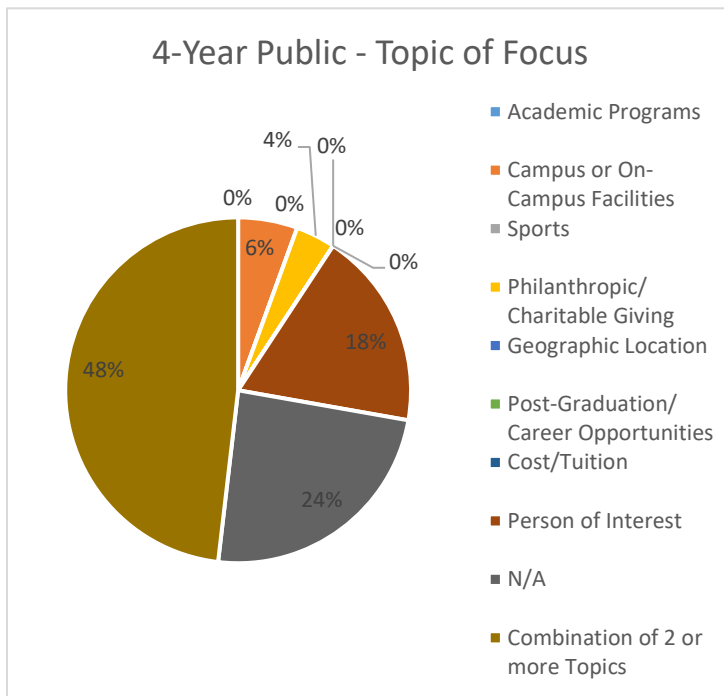


Figure 2.1

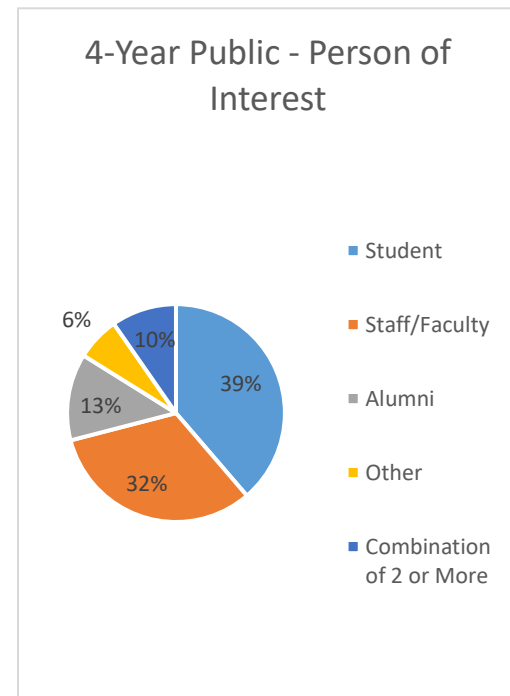


Figure 3

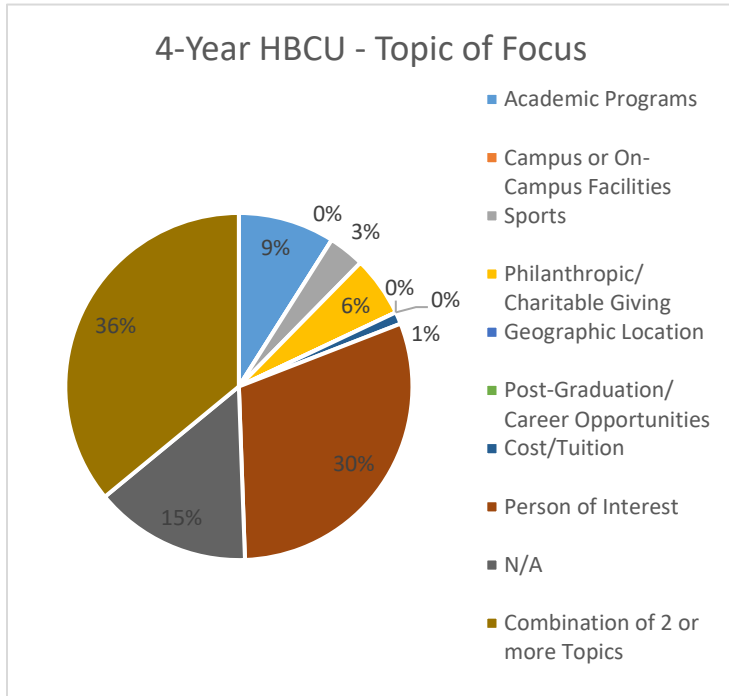


Figure 3.1

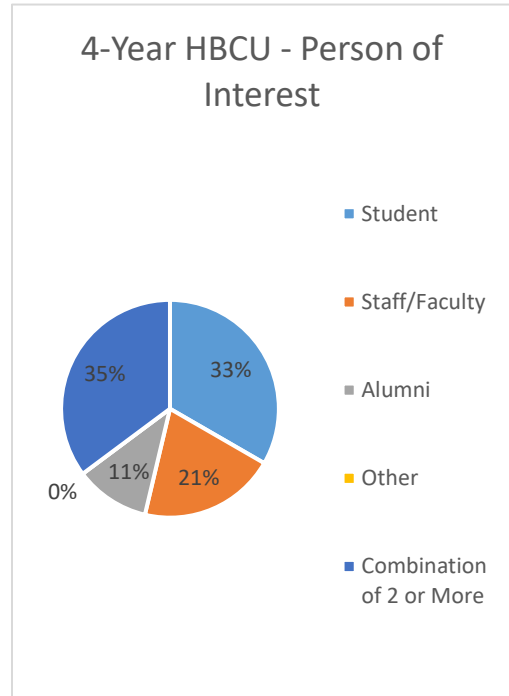


Figure 4

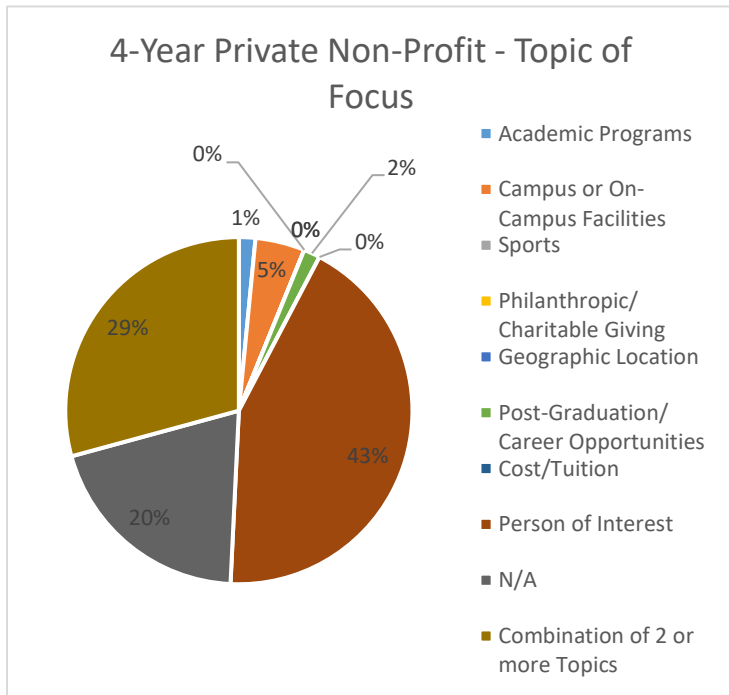


Figure 4.1

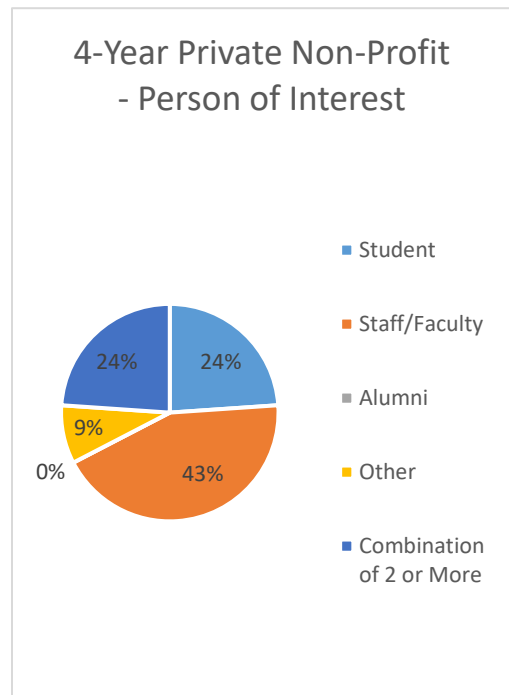




Figure 5

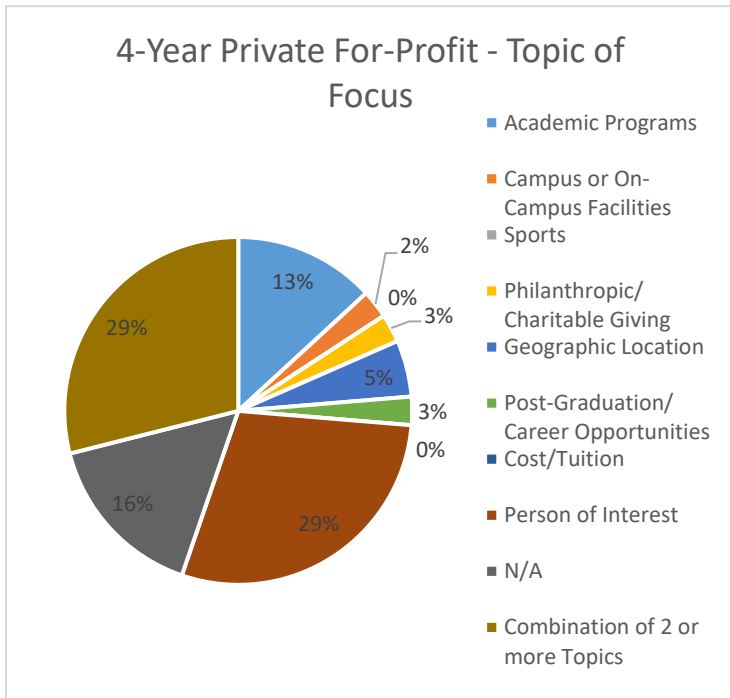


Figure 5.1

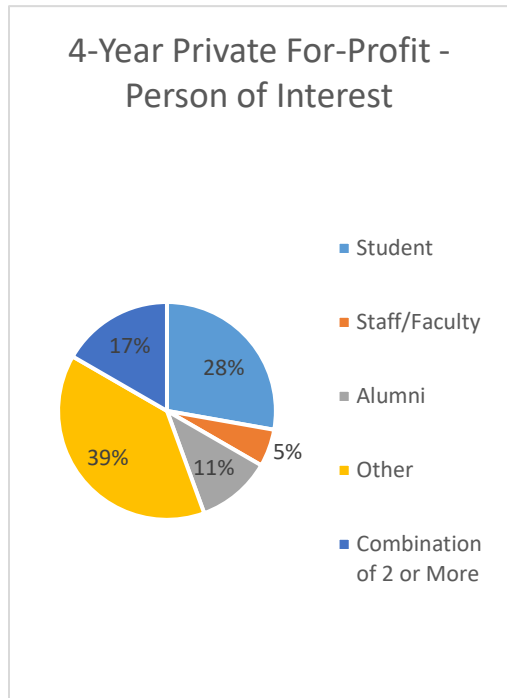


Figure 6

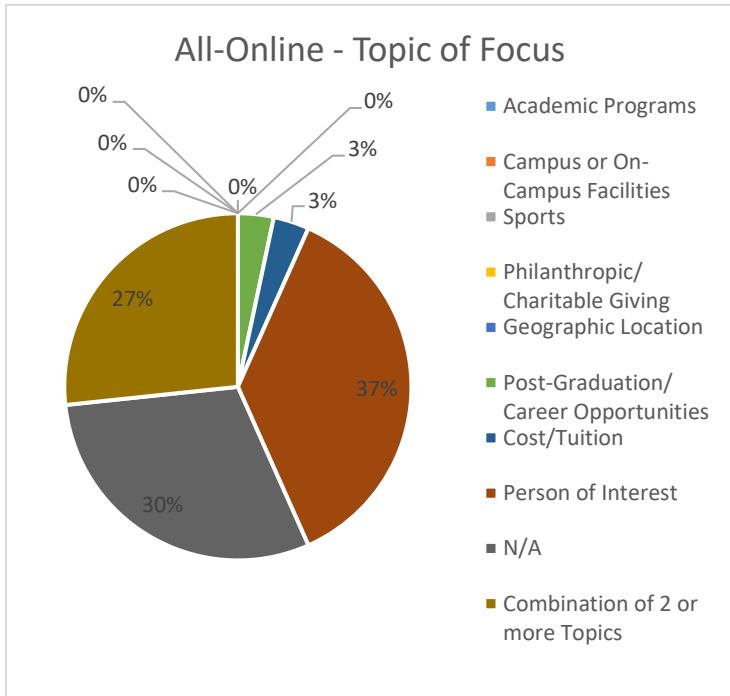
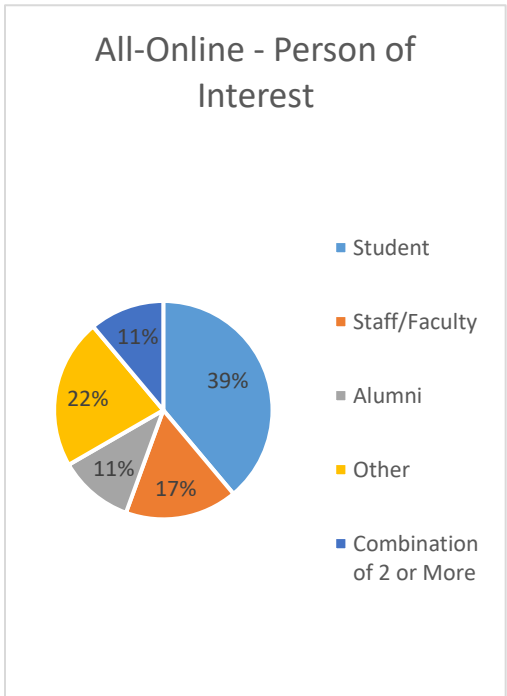


Figure 6.1



When not including the posts that were a combination of 2 or more subjects or were N/A, the individual subject of “Person of Interest” was always the most referenced subject of focus in the text of the posts I captured. Within the topic of “Person of Interest,” we can look at the subcategory of which types of people were mentioned by each institution type. This was a more varied spread, and no one particular type of “Person of Interest” seemed to be mentioned the most by all institution types. One that stood out to me, however, was that the 4-Year Private For-Profit category was the only one where the largest percentage in the “Person of Interest” subject was the “Other” category. In all other categories of institution, the largest percentage of an individual “Person of Interest” was either “Student” or “Staff.” In this case, this is due to the fact that The North Coast College in particular was heavily weighted towards sharing quotes by famous people not directly related to the school.

Now, we could look at what percentage of the posts by each type of institution linked to a separate social media or other external website, and which types of websites they were linking to. In terms of linking to other social media services, this was very limited. In all of the sampled posts, YouTube was the only social media site that any institutions linked to, and it was not linked to often. The 4-Year Public institutions linked to YouTube twice; 2-Year Public, 4-Year HBCU, and the All-Online institutions linked to YouTube one time each, and the 4-Year Private Non-Profit and 4-Year Private For-Profit institutions both did not link to YouTube at all. This lack of cross promotion between different social media platforms was far lower than I expected and indicates that while institutions may have accounts across multiple social media services, they do not seem to cross promote them as much as I had previously thought.

Next, we looked specifically within each distinct institution type, in the coding category of whether their posts contained some sort of a visual element, whether that be image or video.

Within the category of 2-Year Public, 93% of posts contained a visual element while 7% did not contain a visual element. Within the 4-Year Public category, they contained a visual element 33% and did not contain a visual element 67% of the time. The 4-Year HBCUs contained a visual element 92% of the time and did not contain a visual element 8% of the time. The 4-Year Private Non-Profit institutions contained a visual element 68% of the time and did not contain a visual element 32% of the time. Within the 4-Year Private For-Profit category, they contained a visual element 92% of the time and did not contain a visual element 8% of the time. Lastly, in the All-Online category, they contained a visual element in 60% of the posts and did not contain a visual element in 40% of the posts.

Something that first stands out to me regarding these results is that the 4-Year Public category was the only one in which more posts did not contain a visual element than contain a visual element; in all other categories, most of the posts had a visual component attached to the text of the post. Two-Year Public, 4-Year HBCU, and 4-Year Private For-Profit institutions all used visual elements more than 90% of the time, almost always having one accompany the text of their posts. Four-Year Private Non-Profit and All-Online schools both used visuals more often than not, but in a smaller majority compared to the other institutions listed above. This leads me to believe that most of the institution types have displayed via their posting behavior that they believe visuals are engaging or valuable to the content of the message.

Within the posts that did contain some form of visual element, we could look at what types of visual elements they contained, and the subjects of focus in those visual elements.

Figure 7

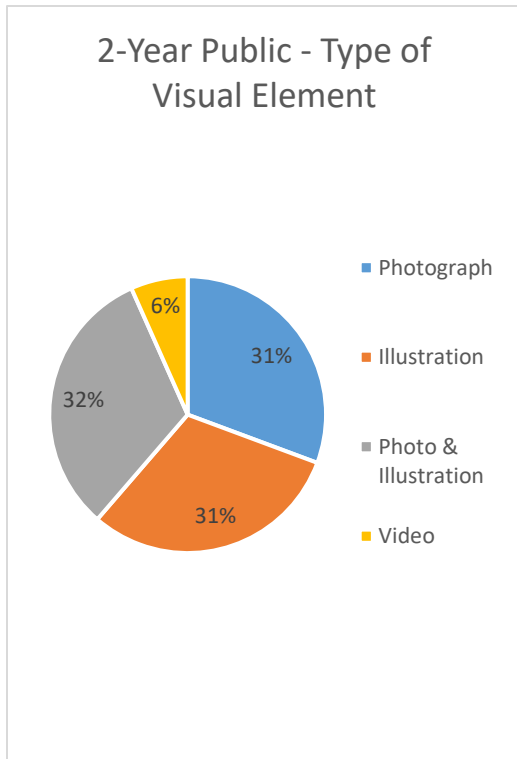


Figure 7.1

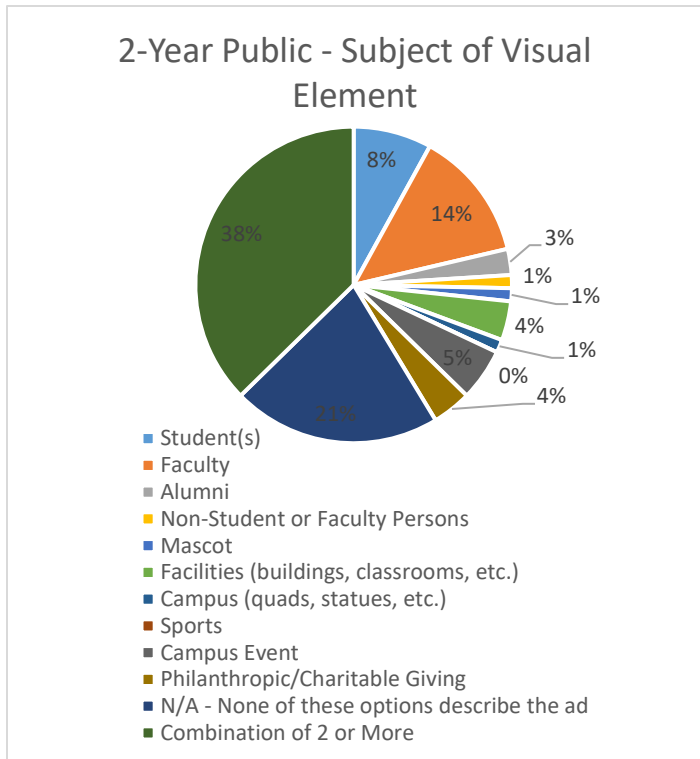


Figure 8

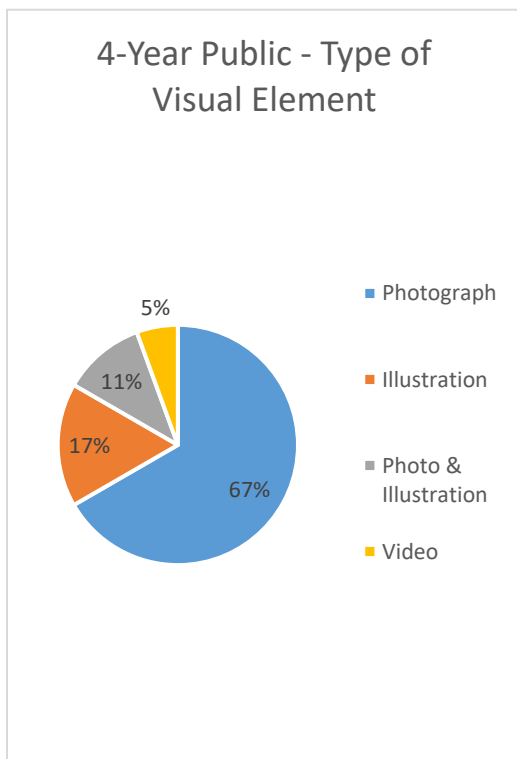


Figure 8.1

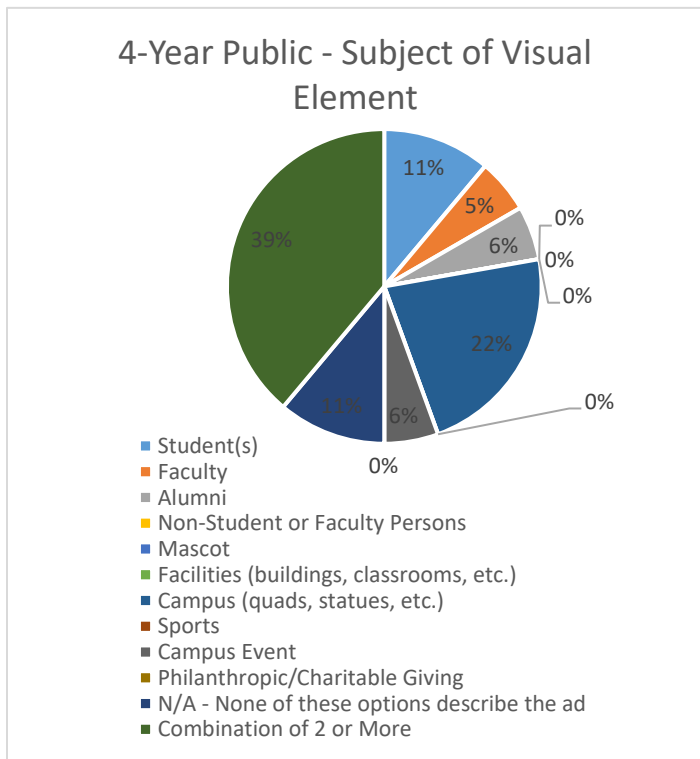


Figure 9

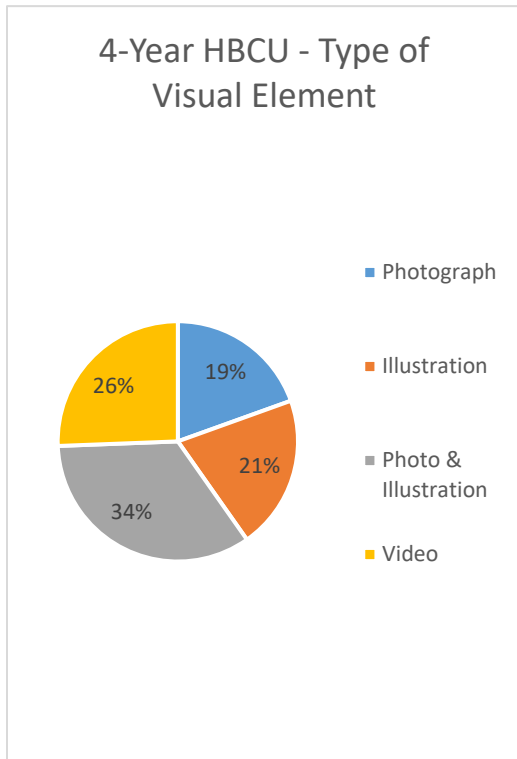


Figure 9.1

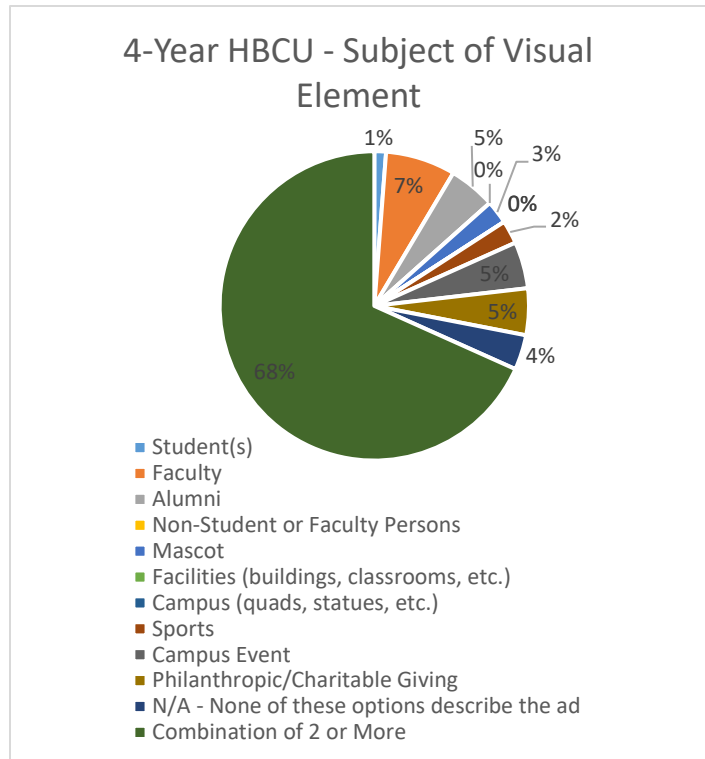


Figure 10

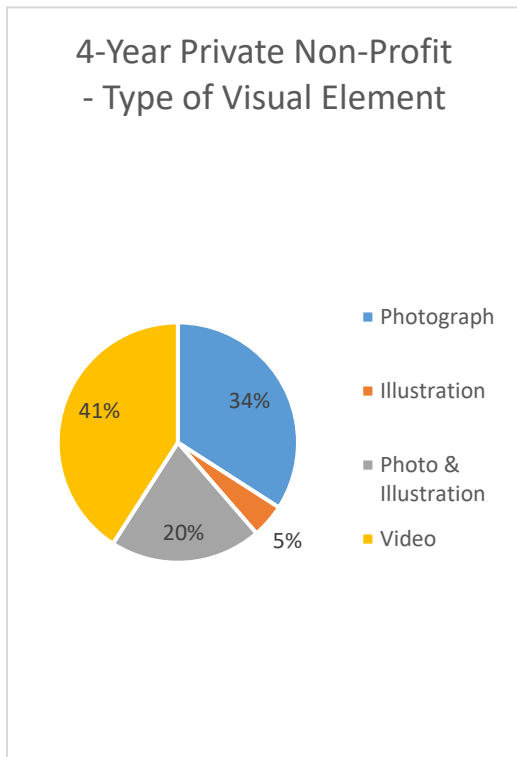


Figure 10.1

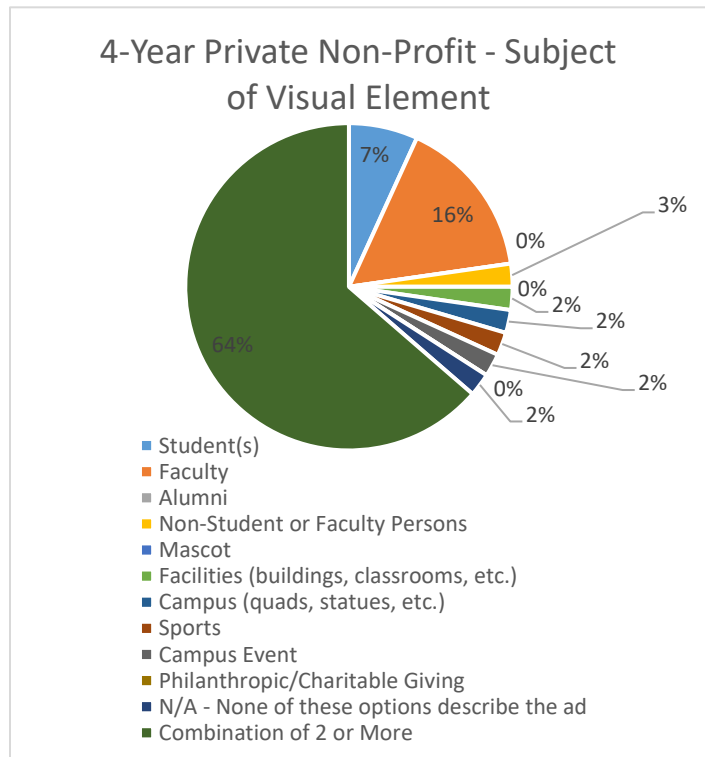


Figure 11

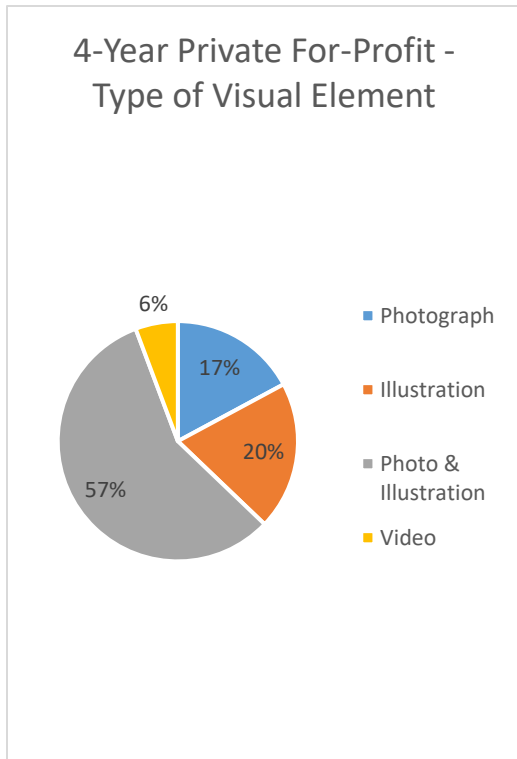


Figure 11.1

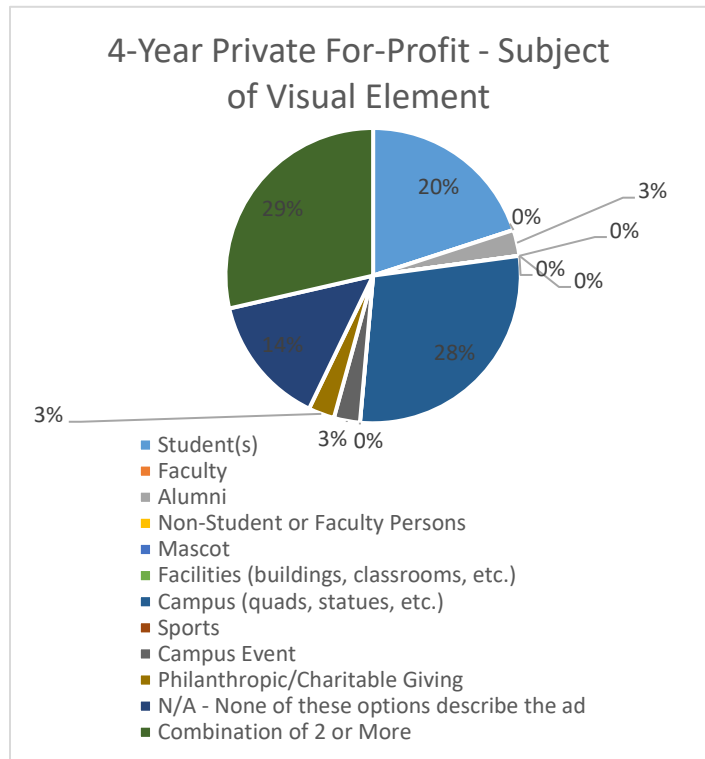


Figure 12

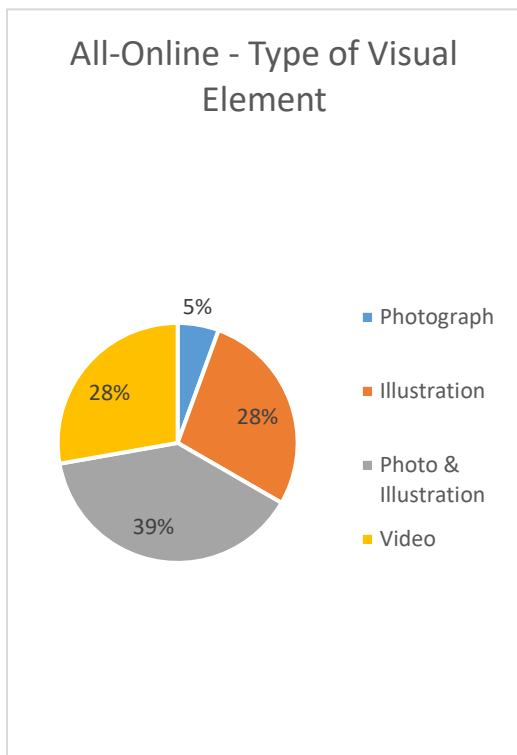
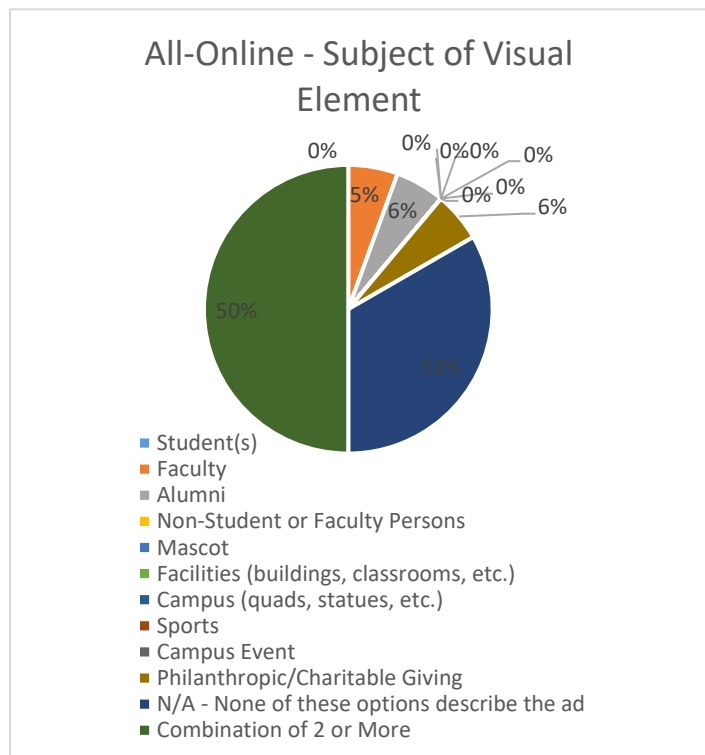


Figure 12.1



In terms of the types of visual elements used by these institutions, photographs, illustrations, or a combination of the two are by far the types of media used most often. The only situation in which the amount of video content rivals still images is in the category of 4-Year Private Non-Profit schools. In several ways, the visual subject of focus of the posts were like the textual subject of focus; the main subject was often a person of interest, generally faculty/staff, students, or alumni. There also was often a combination of multiple subjects in the visual element of the posts, like in the text component of the posts. One difference was that the campuses themselves, along with campus facilities, featured more prominently in the visual element compared to the text posts. Institutions seem to prefer visually showing the appeal of their campus or the features of their classrooms, rather than discussing or explaining them in writing.

Next, the percentages of which ELM messaging route was targeted in the posts of each institution type. The 2-Year Public institutions targeted the central route 59% of the time and targeted the peripheral route 41% of the time. Four-Year Public institutions targeted the central route 22% of the time and the peripheral route 78% of the time. The 4-Year HBCUs targeted the central route in 24% of their posts and the peripheral route in 76% of their posts. The 4-Year Private Non-Profit institutions targeted the central route in 11% of their posts and the peripheral route in 89% of their posts. Four-Year Private For-Profit institutions targeted the central route 34% of the time and targeted the peripheral route 66% of the time. Lastly, the All-Online institutions seemed to target the central route 47% of the time and the peripheral route 53% of the time.

Lastly, we calculated the number of posts by each institution type that mentioned, alluded towards, or did not at all mention COVID-19 or the pandemic. In the category of 2-Year Public

institutions, they mentioned COVID in 4% of their posts, alluded to COVID in 21% of their posts, and did not mention COVID in 75% of their posts. The 4-Year Public institutions mentioned COVID 24% of the time, alluded to COVID 9% of the time, and did not mention COVID at all 67% of the time. The 4-Year HBCUs mentioned COVID in 7% of their posts, alluded to COVID in 14% of their posts, and did not mention COVID in 79% of their posts. The 4-Year Private Non-Profit institutions mentioned COVID 3% of the time, alluded to COVID 9% of the time, and did not mention COVID 88% of the time. The 4-Year Private For-Profit institutions mentioned COVID 5% of the time, alluded to COVID 3% of the time, and did not mention COVID 92% of the time. Lastly, in the All-Online category, the sampled institutions mentioned COVID in 7% of their posts, alluded to COVID in 3% of their posts, and did not mention COVID in 90% of their posts.

### **Grounded Theory Analysis of the Results**

1. How do different types of institutions tailor Facebook posts to try to appeal to potential undergraduate students?

To answer this question, we will first look to the coding category of Topic(s) of Focus for each of the categories of institution. For most institutions, the posts were most frequently focusing on either a Person(s) of Interest or a combination of multiple categories, which in many cases still involved a Person(s) of Interest as one of the multiple categories discussed. In most Facebook posts by these schools, they were not trying to sell the utility of the school on the options or amenities, but rather highlight the people there, while also displaying a curated slice of life one could expect to experience at the school. This is likely due to the fact that while Facebook is certainly an advertising tool that fits in with a repertoire of other communication platforms that institutions use, it has different expectations by the users as a social network,



which differ from other dedicated advertising platforms and formats. While one would expect to receive bulleted selling points and facts in a brochure or mailer, Facebook is more designed for a casual place to share moments of life. In this case, higher education institutions appear to fit their promotional efforts into this slice-of-life style.

An All-Online institution that stood out as posting in a significantly different way to other schools was the National Paralegal College. While most schools and institutions discussed their own institution in some way, National Paralegal College barely did this. Instead, almost all of the posts were related to news stories regarding various legal issues, inviting the people who follow their page to discuss the legal matters of the case. Some of these included a CNN article on the Constitutionality of the death penalty, a Texas Tribune article on the sovereign immunity of the Texas state power grid, and a NY Times article on the relation of freedom of expression and HOAs. These posts rarely gave an editorialized perspective on the matter at hand, and rather shared context while inviting discussion in the comments. Most of the posts were signed by the person who shared them, who appeared to all be faculty of the university, such as Eric Martinez and Jeremy Rovinsky (National Paralegal College, 2021). This allows the school to engage with prospective, current, and/or former students, while allowing the professors to form some kind of a relationship with the students through this interaction. While it seems unconventional compared to the other institutions that use more traditional advertising techniques, through a social information processing theory framework, this makes sense as a potential route for the entirely online college to facilitate more of those online interactions across multiple official and unofficial platforms.

One other school that stood out as particularly unique in the way they targeted potential students was the 4-Year Private For-Profit institution Atlantis University. This school was the

only one in my sampled pool that had posts written entirely in Spanish, while all others were written entirely in English. Atlantis is located in Miami, Florida and wrote posts in Spanish in order to specifically focus on their prospective Puerto Rican students. While all schools individually tailor their posts to some extent to target their intended audience, this was the main one in which I saw the geographic and linguistic elements of the school and their students factor in so highly to the institution's Facebook posting strategies.

2. Do different types of institutions differ significantly in the content of their Facebook posts?

On initial glance of the coding results, it does not appear that the content of the posts between different types of institutions differs significantly, such as when we look at which topics they choose to mention in their posts. All institution types had "Person(s) of Interest" and "Combination of 2 or More Topics" as the two subjects most often making up the content of their posts. While the coding categories are relatively consistent, further analysis of the content itself shows differences in the posting subjects and goals.

In the category of 2-Year Public schools, also often known as community college or associate's programs, I noticed a trend in those sampled institutions creating more direct and informational posts. While all the more traditional 4-year institutions more often mention campus events, facilities, and amenities, the 2-Year Public institutions more often pitch the academic programs and career opportunities provided via their institution. Rather than the traditional route of selling the idea of the collegiate experience, these posts tended to persuade potential students with the potential results of the education they offer. In a post on April 22, Augusta Technical College promoted their partnership with Bank of America and explicitly mentioned the skills they provide to students entering the workforce:

We are excited to highlight our partnership and to amplify the amazing work that Augusta Technical College is doing to support workforce development and education in our greater Augusta-Aiken region and state! The college is thrilled to be featured in Bank of America's local market Augusta page. As the recipient of the 2020 Neighborhood Champion grant, Augusta Tech refurbished the Programmable Logic Control Lab with new equipment that will benefit students that are preparing to enter the workforce or freshen up their current skill set. <https://about.bankofamerica.com/en/making-an-impact/augusta-tech>.

As will be discussed further in the next research question, the 2-Year Public institution is the one category where most of the posts targeted the central route, and where a good portion of the posts appeared to target not only the "traditional" student soon exiting high school, but also older and currently working prospective students. A post from April 26 by Northeast Wisconsin Technical College stated, "You can choose a job - or you can choose a career adventure! Success starts at #NWTC with college that's flexible and unapologetically affordable. Classes start in June and August; get started today!" Similarly, a post by Grossmont College said, "Did you know new 10-week classes start this Monday? Or that new 8-week classes start April 5? Brush up on your Microsoft Outlook skills in BOT 151, learn about personal health and lifestyles in HED 120, or get introduced to oceanography in OCEA 112 in just 10 weeks!"

The content of these posts not only relays information clearly in the way closer to a standard advertising model but emphasizes similar topics of practicality and flexibility. For this reason, it is likely that these posts are aimed more heavily at non-traditional student demographics rather than the traditional student that 4-year institutions primarily target. As covered in the literature review, traditional students are more likely to be persuaded by

peripheral arguments (Chambers, 1995), and while not their top decision-making factors, the decision-making factors related to campus and a sense of community are more likely to have persuasive effects on traditional students when compared to non-traditional students (Wyllie, 2018).

3. Do different types of institutions differ significantly in the tone of their Facebook posts?

For the purposes of “tone” in this study, I looked to the messaging routes that each institution used in their Facebook posts. The ELM route that the schools targeted in their posts shaped the “voice” that the school used when speaking to their audience of primarily prospective, current, and past students. While central route posts and arguments generally speak directly and give facts for the audience to focus on and consider, the posts targeting peripheral cues aim to speak from a position of authority or hint at a desirable experience for their audience to internalize and then infer on what the full experience would be like.

Looking at the ELM routes used by each institution type, most of the schools targeted the Peripheral Route a majority of the time. The categories of 4-Year Public, 4-Year HBCUs, 4-Year Private Non-Profit, and 4-Year Private For-Profit all only targeted the central route between 11% - 34% of the time. These schools primarily communicated in a way that does not consist of arguments that merit considered processing, but rather make broader appeals unrelated to the logical qualities of a persuasive argument. On the other hand, All-Online institutions targeted the central route just under half the time, and 2-Year Public institutions targeted the central route a clear majority of the time. This gap between the two institutional categories that rely more heavily on central route arguments compared to the other four that use peripheral cues more often is the most significant difference in the general tone of different institutions.

A post targeting the peripheral route often looks something like this post by The North Coast College, a 4-Year For-Profit College, on April 15: “Steve Jobs once said, ‘Your time is limited, so don’t waste it living someone else’s life.’ Go after your dreams at TheNCC and live the life you want! #TheNCC.” Also in a similar vein is an April 19 post by McMurry University in the 4-Year Private Non-Profit category, which said, “‘The classroom should be an entrance into the world, not an escape from it.’ - John Ciardi.” In both of these cases, they do not logically argue the benefits of their college, but used a recognized voice in order to imply the idea that their school is associated with the ideals of these voices.

Another common peripheral technique could be seen in an April 19 post by the 4-Year Public institution, Bemidji State University: “Happy Earth Week!!! Isn’t our community beautiful?” Another was from 4-Year Public University, Eastern Connecticut State University, which on April 23 said, “We love smoothies from the Stu! #ECSU #StudentCenter #StudentLife.” Both of these posts use a casual approach while promoting the appearance or amenities of their campus and campus life. These are not thoughtfully considered persuasive arguments, but still promote their school as an appealing college experience. One reason why we see these types of peripheral posts from 4-Year institutions rather than 2-Year or All-Online institutions is that they often emphasize the campus and student life. 2-Year and All-Online programs do not have the same emphasis on campus life and either do not have comparable physical campus facilities or have physical campuses at all.

4. To what degree are different institutions employing Facebook advertising and outreach?

First, we looked to the total amount of posts each category of institution type made in this 2-week period, since this gave us some idea of the amount these institutions employ Facebook as

an advertising and persuasive tool. 2-Year Public institutions had 81 posts, 4-Year Public had 54 posts, 4-Year HBCU had 89 posts, 4-Year Private Non-Profit had 65 posts, 4-Year Private For-Profit had 38 posts, and All-Online had 30 posts. The first thing that stood out to me was how few online Facebook posts the All-Online institutions made, compared to most of the other institution types. Since the school programs are done entirely online, I had initially believed that they would likely use online advertising to a much more significant extent.

Similarly, we should look at the resources that each type of institution is putting into creating visual elements to go alongside their posts. As discussed above, other than 4-Year Public schools, all categories of institutions are including some form of visual with most of their posts, with 2-Year Public, 4-Year HBCU, and 4-Year Private For-Profit institutions almost always including visual. A common tactic for these institutions is to rely on a combination of both photographic and illustrated/graphic elements to simultaneously create interesting visual content while including more information or highlighting certain information contained in the text of the post. In such cases, the institution can include students or other people of interest in the photograph, while also including information and persuasive messaging in the graphic elements of the visual element. This particular element of the Facebook activity of the sampled institutions aligns closely with persuasive techniques seen in more traditional advertisements such as brochures and mailers.

Something of note, however, is that while 4-Year Private Non-Profit institutions were not quite as high in the relative percentage that they included visuals, they did use video a significantly higher percentage of the time. Since video content is often more expensive and time consuming to produce compared to still images, this indicates to me that they are putting a

comparable or greater amount of resources into producing visual content for their Facebook posts.

Almost all of these video posts in the 4-Year Private Non-Profit category came from Cedarville University. Cedarville is a private Christian University that holds SGA chapel services, and most of their video content on Facebook consisted of recordings of these services. In these posts, the text generally just indicated that it was one of the chapel services, and the video was posted with little other text information. The chapel services are unedited and roughly an hour long each; while related to the college, the primary function appears to be sharing the religious and gospel aspects of the service, and not directly creating persuasive messaging in the typical sense. However, since Cedarville has a specific audience in mind for prospective students, this could still function as a persuasive or recruiting tool that aligns with the image the school intends to create for itself, and the image of the student they hope to recruit.

## Chapter 6. Discussion

### Significance of Results

The primary takeaway from this study is that 2-Year and All-Online programs are targeting both traditional and non-traditional students with a mix of content subjects and elaboration routes (central and peripheral); 4-Year programs are likely missing out on reaching potential non-traditional student populations due to a focus on peripheral cues (persuasive elements not tied to logical arguments) and content unrelated to the most used or fastest growing student decision-making factors, such as academic reputation or tuition cost (Harvey, 2014). While these cues and subjects likely help to persuade potential students to some extent, practitioners in the field should examine their goals and intended audience to determine if their social media activity is having the level of efficacy they desire. Additionally, practitioners should examine and analyze the content and goals of potentially competing schools both in similar as well as different institutional categories to see where the industry overall is succeeding and failing at reaching potential students. Considering the approaching enrollment cliff, schools should ensure they have a clear vision to not only target the fastest growing student populations, but also the fastest growing factors that students use to make their enrollment decisions (Kline, 2019).

Within the subjects that are discussed, the most common individual category, Person of Interest, is where 4-Year institutions may have the greatest ability to differentiate themselves from each other and highlight their strengths, especially when combined with other subject categories. Schools with strong and respected academic and research programs can effectively promote their programs with posts about professors and student achievements. Institutions with strong sports programs can appeal to this fandom along with posts about athletes and coaches.



Institutions with strong campus life and related programs can display their campus, events, and amenities in combination with student leaders and relevant staff or faculty. Using this technique allows institutions to make social media-friendly posts that have a human component, while also displaying topics related to important student enrollment decision-making factors, and potentially targeting multiple persuasion elaboration routes.

The results of this study should be most relevant to practitioners in the field of higher education, especially in the marketing and public relations departments of higher education institutions. The performed sampling of these categories of institutions should allow for those professionals to understand and assess the practices of their own institutions and others more comprehensively. This sample of institutions should allow for practitioners in the field to understand other institutions more fully in their same category, to better understand the strengths and weaknesses of themselves and their competition. Additionally, professionals in the field can look to the overview of other institutional types to assess the strengths and weaknesses of their institution compared to alternative types of higher education. While each type of institution has their own benefits and amenities to offer their audiences of potential students, it can be helpful to see how other types of institutions market via Facebook more effectively.

Additionally, professionals and practitioners in the field can use the studies by Harvey (2014), Wyllie (2018), and LaFave et al. (2018) mentioned in the literature review to compare if their posting behavior matches that of the most prominent and the fastest-growing student decision-making factors. Each of these studies provide insight on what subjects and types of content institutions should target in their social media posts if they hope to persuade potential students through central route arguments. In this study I have noted that institutions, especially 4-year institutions, do not often post about the most common (academic reputation and job

prospects) or fastest growing (cost and financial aid) factors that incoming students primarily use to make their enrollment decisions (Harvey, 2014). This may be an intentional decision, as social media has different audiences and expectations than traditional print and media advertisements, but it is still valuable to assess the gap between student decision-making factors and the subjects most often mentioned in Facebook posts to determine if these practices should be revised.

### **Limitations**

The primary limitation of this study is that it is merely a sampling of each category and does not provide a comprehensive look at the field and industry. The sampling and analysis were limited to four schools per category, so in some cases, one school's posting activity could drastically affect the results of that entire category. Additionally, the study only covered just 2 weeks of posts per school, which only provides a snapshot of one specific period of posts. The posts often related to graduation and other end of the year activities, and do not reflect the overall year-round posting behavior of these schools.

Additionally, the predefined categories of subjects did not always cover the subjects in the sampled Facebook posts. In some cases, the post subject had to be coded as "N/A," which did not always meaningfully contribute to the results and analysis. Also, for the Messaging Route coding category, there were some cases where an institution's post used a mix of both central and peripheral arguments and did not completely fall into one or the other. A possible revision would be to code this with a third option to acknowledge that mix of the two, and factor that into the analysis. One other limitation was the lack of a category to address posts about Diversity and/or Social Justice. Multiple schools posted about race and gender issues in America that affect their students, whether it be resources or workshops and discussions. In the "Person of Interest" category, within the "Other" category, Derek Chauvin was the most frequently

mentioned person since this post window covered the period where the results of his trial were national news. This suggests that institutions are engaging with students on the topics of race, diversity, and social justice, which merits examination and discussion. A coding category that covered these subjects would have potentially provided interesting and meaningful results.

One limitation mentioned in the Methodology section was that in two cases, NCCapture failed to gather the post data for two of the initially selected schools. This did not present major issues but was a limitation of the tools and process that merits mention. Of the schools selected, the study only covered the posts of the main official Facebook page of each school. No data was collected or analyzed from any other pages by the school (e.g., specific departments, programs of study, clubs, learning communities, etc.). While the main page of each school is the de facto “voice” of the school on Facebook, a sample of other pages could provide interesting results, as they could be used to target portions of their prospective student audience more specifically.

### **Recommendations for Future Research**

For future research, a similar study as this could be expanded upon and performed to compare with this study or analyze entirely different information. Suggestions for this would first include a reexamination of the coding categories, to potentially add Subjects of Focus such as the possible Diversity and Social Justice category mentioned above, or to remove or revise the Subjects of Focus that did not appear as often. In addition to this, a revision of the ELM coding category could allow for not only measuring peripheral versus central cues, but the option for a combination of the two, to better understand when institutions potentially appeal to multiple elaboration routes in their posts.

Additionally, a larger number of schools in each category, or a larger selection of time, could be sampled to provide a wider and more comprehensive look at the posting behavior of the

industry. Also, a wider range, or more narrowly defined categories of institutions could provide interesting comparisons. Categories such as Ivy League or other highly selective schools, Technical Schools, Continuing Education Programs, and Undergraduate-only versus Graduate degree-granting institutions could provide interesting institutional comparisons.

For recommendations of slightly different future research endeavors, the first would be to incorporate other social media platforms in addition to Facebook. Other widely used platforms such as Twitter could bolster the information gathered here, or analysis of less widely used platforms such as Twitch or Tik Tok could generate interesting results within an examination of the diffusion of innovations framework. The audiences and behaviors on these platforms differ from the expectations of Facebook, so it is likely that schools would use these platforms in meaningfully different ways, if they have begun to use them at all.

Lastly, it could be valuable to incorporate a survey or other feedback from prospective and recently admitted students on the efficacy or influence of social media, to better measure the impact that different social media strategies have on student enrollment decisions. It is important to understand from these students how they use social media, and how or if the social media activity of institutions affected their enrollment decisions. For this study, I operated within the idea that the decision-making factors of students are the same in general as they are on Facebook. It is likely that students are persuaded differently via Facebook compared to traditional college research, especially as it pertains to the messaging route of the posts.

### References

- Adams, M. (2020, May 28). *The demographic cliff is already here-and it's about to get worse*. EAB. <https://eab.com/insights/expert-insight/enrollment/the-demographic-cliff-is-already-here-and-its-about-to-get-worse/>
- Balaban, D. C., & Racz, R. G. (2020). Social media influencer advertising versus advertising on social media account of a brand. Evidence from an experimental design. *Journal of Media Research*, 13(3), 45–54. <http://doi.org/10.24193/jmr.38.3>
- Barnes, N. G., & Lescault, A. M. (2011). Social media adoption soars as higher-ed experiments and reevaluates its use of new communications tools. *University of Massachusetts Center for Marketing Research*. Published.
- Barnes, N. G., & Lescault, A. M. (2013a). College presidents out-blog and out-tweet corporate CEOs as higher ed delves deeper into social media to recruit students. *Journal of New Communications Research*, 5(2), 91–105.
- Barnes, N. G., & Lescault, A. M. (2013b). Higher ed documents social media ROI: New communications tools are a game changer. *Journal of New Communications Research*, 5(1), 142–145.
- Barshay, J. (2018, September 10). *College students predicted to fall by more than 15% after the year 2025*. The Hechinger Report. <https://hechingerreport.org/college-students-predicted-to-fall-by-more-than-15-after-the-year-2025/>
- Brumfield, R. (2005, August 25). *Student blogs offer new recruiting tool*. eSchool News. <https://www.eschoolnews.com/2005/08/25/student-blogs-offer-new-recruiting-tool/>
- Bryman, A. (2015). *Social research methods*. Oxford University Press.

Chambers, S. M. (1995). Age, prior opinions, and peer interactions in opinion restructuring.

*Child Development*, 66(1), 178–192. <https://doi.org/10.2307/1131199>

Christopher Brown II, M., & Elon Dancy II, T. (2010). Predominantly white institutions. In K.

Lomotey (Ed.), *Encyclopedia of African American education* (pp. 524-526). SAGE

Publications, Inc., <https://www.doi.org/10.4135/9781412971966.n193>

Chu, S. C., Deng, T., & Cheng, H. (2020). The role of social media advertising in hospitality,

tourism and travel: A literature review and research agenda. *International Journal of*

*Contemporary Hospitality Management*, 32(11), 3419–3438.

<https://doi.org/10.1108/IJCHM-05-2020-0480>

Chuang, S. (2020). Co-creating social media agility to build strong customer-firm relationships.

*Industrial Marketing Management*, 84, 202–211.

<https://doi.org/10.1016/j.indmarman.2019.06.012>

College Factual. (2021). University of Arkansas System eVersity Overview. College Factual.

<https://www.collegefactual.com/colleges/university-of-arkansas-system-eversity/>

College Factual. (2021). University of Florida-Online Overview. College Factual.

<https://www.collegefactual.com/colleges/university-of-florida-online/>

Colleges and Universities. (2020). State Council of Higher Education for Virginia.

<https://www.schev.edu/index/students-and-parents/explore/virginia-institutions>

Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and

evaluative criteria. *Qualitative Sociology*, 13(1), 3–21.

<https://www.doi.org/10.1007/bf00988593>

- Danaher, P. J., & Dagger, T. S. (2013). Comparing the relative effectiveness of advertising channels: A case study of a multimedia blitz campaign. *Journal of Marketing Research (JMR)*, 50(4), 517–534. <https://doi.org/10.1509/jmr.12.0241>
- Department of Homeland Security. (2012, March 13). What is community college? Study in the States. <https://studyinthestates.dhs.gov/2012/03/what-community-college>
- Diel, S. R., & Katsinas, S. (2018). University advertising and universality in messaging. *Innovative Higher Education*, 43(3), 171–183. <https://doi.org/10.1007/s10755-018-9421-7>
- Ferguson, C. P. (2010). Online social networking goes to college: Two case studies of higher education institutions that implemented college-created social networking sites for recruiting undergraduate students. *ProQuest Dissertations & Theses Global*.
- Grove, A. (2019, July 21). *What is a public university?* ThoughtCo. <https://www.thoughtco.com/what-is-a-public-university-788441>
- Grove, A. (2020, November 1). *What is a private university?* ThoughtCo. <https://www.thoughtco.com/what-is-a-private-university-788439>
- Hamouda, M. (2018). Understanding social media advertising effect on consumers' responses: An empirical investigation of tourism advertising on Facebook. *Journal of Enterprise Information Management*, 31(3), 426–445. <https://doi.org/10.1108/JEIM-07-2017-0101>
- Harvey, T. (2014, March 6). *Cost and financial aid increasingly influence students' choice of college*. The Chronicle of Higher Education. <https://www.chronicle.com/article/cost-and-financial-aid-increasingly-influence-students-choice-of-college/>

- Hernandez, M. R. (2018). The impact of marketing content in advertising and promotional efforts on community college enrollment [ProQuest Information & Learning]. In *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 79(4).
- Hossler, D. (1999). Effective admissions recruitment. *New Directions for Higher Education*, (108), 15–30. <https://www.doi.org/10.1002/he.10802>
- Johnson, L. (2011, November 16). *More colleges use Facebook to recruit students*. Head Count. <https://www.chronicle.com/blogs/headcount/more-colleges-use-facebook-to-recruit-students>
- Johnston, W. J., Khalil, S., Le, A. N. H., & Ming-Sung Cheng, J. (2018). Behavioral implications of international social media advertising: An investigation of intervening and contingency factors. *Journal of International Marketing*, 26(2), 43–61. <https://doi.org/10.1509/jim.16.0125>
- Joly, K. (2006, August 18). *Special UB column about admission-sponsored student blogs: Nancy Prater, web content coordinator at Ball State University*. Collegewebeditor.com. <https://collegewebeditor.com/blog/index.php/archives/2006/08/18/special-ub-column-about-admission-sponsored-student-blogs-nancy-prater-web-content-coordinator-at-ball-state-university/>
- Kessler, S. (2011, October 17). *7 ways universities are using Facebook as a marketing tool*. Mashable. <https://mashable.com/2011/10/17/facebook-marketing-colleges-universities/?europe=true>
- Kline, M. (2019). *The looming higher ed enrollment cliff*. CUPA-HR. <https://www.cupahr.org/issue/feature/higher-ed-enrollment-cliff/>



LaFave, A., Kelly, E., & Ford, J. (2018, November). *Factors that influence student college choice*. National Center for Education Statistics.

<https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019119>

Lancelot Miltgen, C., Cases, A.-S., & Russell, C. A. (2019). Consumers' responses to Facebook advertising across PCs and mobile phones: A model for assessing the drivers of approach and avoidance of Facebook ads. *Journal of Advertising Research*, 59(4), 414–432.

<https://doi.org/10.2501/JAR-2019-029>

Martin, P. Y., & Turner, B. A. (1986). Grounded theory and organizational research. *The Journal of Applied Behavioral Science*, 22(2), 141–157.

<https://www.doi.org/10.1177/002188638602200207>

Mendelson, A., & Bolls, P. (2003). Emotional effects of advertising on young adults of lower socio-economic status. *Conference Papers -- International Communication Association*, 1–6.

Mwenda, A. B., Sullivan, M., & Grand, A. (2019). How do Australian universities market STEM courses in YouTube videos? *Journal of Marketing for Higher Education*, 29(2), 191–208.

National Paralegal College. (2021). *Faculty and staff*. National Paralegal College.

<https://nationalparalegal.edu/Faculty.aspx>

Nyangau, J., & Bado, N. (2012). Social media and marketing of higher education: A review of the literature. *Journal of the Research Center for Educational Technology*, 8, 38–51.

O'Connor, C., & Joffe, H. (2020). Intercoder reliability in qualitative research: Debates and practical guidelines. *International Journal of Qualitative Methods*.

<https://doi.org/10.1177/1609406919899220>

Palmer, L. A. (2012). Understanding social media advertising in higher ed: A case study from a small graduate program. *Design of Communication*, 115–120.

<https://doi.org/10.1145/2379057.2379079>

Sarbu, R., Alecu, F., & Dina, R. (2018). Social media advertising trends in tourism. *Amfiteatru Economic*, 20(12), 1016–1028. <http://doi.org/10.24818/EA/2018/S12/1016>

Schenker, M. (2021, March 15). *How to use Cialdini's 6 principles of persuasion to boost conversions*. CXL. <https://cxl.com/blog/cialdinis-principles-persuasion/>

Seale, S. (2021, March 2). *How higher education institutions can “future-proof” against the demographic cliff*. Higher Ed Connects. <https://higheredconnects.com/futureproofing-against-demographic-cliff/>

Shaw, M. (2017, June 21). *What is social media advertising?*

<https://www.customerinsightgroup.com/marketinglibrary/social-media-marketing/what-is-social-media-advertising>

Sirk, C (2020, August 21). *Diffusion of innovations: How adoption of new ideas and technologies spread*. CRM.org. <https://crm.org/articles/diffusion-of-innovations>

Stevenson, E. (2010). Advertising on Facebook isn't part of a social media strategy. *New Media Age*, 15.

Suryono, J., Rahayu, N. T., Astuti, P. I., & Widarwati, N. T. G. (2020). Successful social media advertising activities for micro, small and medium enterprises. *MediaTor*, 13(1), 31–40.

<https://doi.org/10.29313/mediator.v13i1.5782>

Talih Akkaya, D., Akyol, A., & Golbasi Simsek, G. (2017). The effect of consumer perceptions on their attitude, behavior and purchase intention in social media advertising. *Marmara University Journal of Economic and Administrative Sciences*, 39(2), 361–388.

TBS Staff. (2019, April 9). For-profit colleges vs. non-profit colleges – What’s the difference?

TheBestSchools.org. <https://thebestschools.org/magazine/for-profit-vs-non-profit/>

Tucciarone, K. (2008). Advertising’s effect on community college search and choice.

*Community College Enterprise*, 14(2), 73–91.

University of Virginia. (2020). State Council of Higher Education for Virginia.

<https://research.schev.edu/iprofile.asp?UID=234076>

U.S. Department of Education. (2021). College Scorecard. <https://collegescorecard.ed.gov/>

U.S. News & World Report. (2021). *How does Hollins University rank among America’s best colleges?* <https://www.usnews.com/best-colleges/hollins-university-3715>

U.S. News & World Report. (2021). *How does University of Virginia rank among America’s best colleges?* <https://www.usnews.com/best-colleges/uva-6968>

U.S. News & World Report. (2021). *How does Virginia Commonwealth University rank among America’s best colleges?* <https://www.usnews.com/best-colleges/vcu-3735>

U.S. News & World Report. (2021). *Virginia State University overall rankings | US News Best Colleges.* <https://www.usnews.com/best-colleges/virginia-state-3764/overall-rankings>

Virginia Commonwealth University. (2020). State Council of Higher Education for Virginia.

<https://research.schev.edu/iprofile.asp?UID=234030>

Virginia State University. (2020). State Council of Higher Education for Virginia.

<https://research.schev.edu/iprofile.asp?UID=234155>

Voorveld, H. A. M., van Noort, G., Muntinga, D. G., & Bronner, F. (2018). Engagement with social media and social media advertising: The differentiating role of platform type.

*Journal of Advertising*, 47(1), 38–54. <https://doi.org/10.1080/00913367.2017.1405754>

- Wang, S., & Lehto, X. (2020). The interplay of travelers' psychological distance, language abstraction, and message appeal type in social media advertising. *Journal of Travel Research*, 59(8), 1430–1446. <https://doi.org/10.1177/0047287519880000>
- Weindling, W. (2017, September 5). Why more colleges are using social media to recruit students. HigherEdJobs. <https://www.higheredjobs.com/Articles/articleDisplay.cfm?ID=1393>
- White House Initiative on Historically Black Colleges and Universities. (n.d.). U.S. Department of Education. Retrieved March 5, 2021, from <https://sites.ed.gov/whhbcu/one-hundred-and-five-historically-black-colleges-and-universities/>
- Wilkins, D. J., Livingstone, A. G., & Levine, M. (2020). One of us or one of them? How “peripheral” adverts on social media affect the social categorization of sociopolitical message givers. *Psychology of Popular Media*. <https://doi.org/10.1037/ppm0000322>
- Winn, P., Leach, L. F., Erwin, S., & Benedict, L. P. (2014). Factors that influence student selection of educational leadership master's programs at regional universities. *Administrative Issues Journal*, 4, 10.
- Wyllie, J. (2020, July 23). *The 7 things students think about when choosing a college*. The Chronicle of Higher Education. <https://www.chronicle.com/article/the-7-things-students-think-about-when-choosing-a-college/>
- Yeo, S. F., Tan, C. L., Lim, K. B., & Leong, I. (2020). Effects of social media advertising on consumers' online purchase intentions. *Global Business & Management Research*, 12(1), 89–106.

Zhang, Y., Li, X., & Hamari, J. (2020). How does mobility affect social media advertising effectiveness? A study in WeChat. *Industrial Management & Data Systems*, *120*(11), 2081–2101. <https://doi.org/10.1108/IMDS-05-2020-0268>

## Appendices

### Appendix A – Pilot Study Coding Sheet

\* Required

\* This form will record your name, please fill your name.

#### Intro

1. Please Type your First and Last Name

\*

2. Name of School

\*

- Hollins University
- University of Virginia
- Virginia Commonwealth University
- Virginia State University

3. Ad #

\*

- 1
- 2
- 3

## Text Content

### 4. Topics of Focus (Text only)

\*

- Academic Programs
- Campus or On-Campus Facilities
- Sports
- Philanthropic/Charitable Giving
- Geographic Location
- Post-Graduation/Career Opportunities
- Cost/Tuition
- Person of Interest (Student/Alumni/Faculty/Staff)
- N/A - None of these options describe the ad

### 5. (If topics of focus include) Person of Interest- Advertisement highlights or promotes:

- Student
- Alumni
- Staff/Faculty

Other

## 6. Included Keywords

- Student-focused
- Personalized
- Connections
- Alumni
- State-of-the-art
- Hands-on
- Affordable
- Graduation Rates
- Opportunities
- Community
- Prestigious
- Online
- Part-time



### 7. Links to Other Social Media

- Instagram
- Messenger
- Twitter
- Youtube
- LinkedIn
- Flickr
- 
- Other

### 8. Links to Other Websites

- School Website
- News Website
- Database/Publication
- 
- Other

### 9. Visual Element

\*

- Text is accompanied by an additional visual element (photo, illustration, video, etc.)
- Text is not accompanied by photograph or other visual element

## Visual Content

### 10. Type(s) of Visual Content

\*

- Photograph
  - Illustration/Graphic Element
  - Video
  - Audio
  - Map
  - Poll
  -
- Other

### 11. Topics of Visual Content

\*

- Student(s)
- Faculty
- Non-Student or Faculty Persons
- Mascot
- Facilities (buildings, classrooms, etc.)
- Campus (quads, statues, etc.)
- Sports
- Campus Event
- N/A - None of these options describe the ad

## Other

### 12. Message Elaboration

\*

- Central Route: Ad largely relays information or factual details
- Peripheral Route: Ad largely promotes the benefits of their institution (either in reference to the college experience or potential post-college results) or as a solution to perceived problem

### 13. COVID-19 \*

- Mentions COVID 19
- Does Not Mention COVID 19
- COVID 19 is not explicitly mentioned, but implied by the photo/visual element

---

This content is neither created nor endorsed by Microsoft. The data you submit will be sent to the form owner.

**Appendix B – Full Coding Instructions**

Code all advertisements, first focusing just on the text elements of the ad, and then the visual elements if they are present.

Section 1: Intro Section - The ads should be labeled by their school and which # ad it is, so fill out this information for later sorting.

Section 2: All these questions relate only to the text element of the advertisement, so do not look at any other portions other than what they have written at this time.

1. Topics of focus – Look at the text of the post and determine which, if any of these topics, are mentioned directly or indirectly, exact language is not required. Check all that are mentioned in the text of the advertisement. If none of the options seem to depict any part of the text, check N/A, if you check N/A do not check any other options and vice versa.
2. Person of Interest- Advertisement highlights or promotes – If you checked the “Person of Interest” option in #1 then indicate here all of the types of people who were referenced in the text of the post, you may check multiple options.
3. Included Keywords - Check each keyword that is used in the text of the ad, capitalization does not matter but should otherwise be exact language
4. Links to Other Social Media – Check any and all links to external websites, and include any not listed here in “Other”
5. Links to Other Websites – check any and all types of websites that the school links to in their post
6. Visual Element: if the text is alone with no visual element, this question will have you skip the section on visual content

Section 3:

1. Type(s) of Visual Content – Check all types of visual media included with the text of the post
2. Topics of Visual Content – Check any and all options that are depicted in the advertisement, both foreground and background (etc. a student in a classroom with an instructor would include Student(s), Faculty, and Facilities)

#### Section 4:

1. Message Elaboration – this question is based on the Elaboration Likelihood Model. Messaging that is targeting the central route of its audience aims to convince its audience through thoughtful consideration of the arguments (ideas, content). Messaging that is targeting the peripheral route aims to convince its audience through other cues besides the strength of its argument (appeal to expertise or other attractive factors)
2. COVID-19: Looking at all elements, textual as well as visual, does the ad address COVID-19 or the ongoing pandemic? You can choose yes, no, or the third option if it does not directly reference the pandemic but indirectly implies it (people wearing masks, forehead thermometer scans, temporary distance learning etc.)

**Appendix C – Intercoder Reliability Calculations**

	Percent Agreement	Krippendorff's Alpha	N Agreements	N Disagreements	N Cases	N Decisions
Variable 1 (cols 1 & 2)	96.55172414	0.85625	56	2	58	116
Variable 2 (cols 3 & 4)	100	1	58	0	58	116
Variable 3 (cols 5 & 6)	96.55172414	0.85625	56	2	58	116
Variable 4 (cols 7 & 8)	98.27586207	0.9004329	57	1	58	116
Variable 5 (cols 9 & 10)	98.27586207	0.914115011	57	1	58	116
Variable 6 (cols 11 & 12)	96.55172414	0.783018868	56	2	58	116
Variable 7 (cols 13 & 14)	100	1	58	0	58	116
Variable 8 (cols 15 & 16)	98.27586207	0.914115011	57	1	58	116
Variable 9 (cols 17 & 18)	100	1	58	0	58	116
Variable 10 (cols 19 & 20)	94.82758621	0.838709677	55	3	58	116
Variable 11 (cols 21 & 22)	98.27586207	0.914115011	57	1	58	116
Variable 12 (cols 23 & 24)	94.82758621	0.701298701	55	3	58	116
Cumulative	97.70114943	0.889858765				

## Appendix D – Updated Thesis Coding Sheet

\* Required

### Intro

1. Name of School

\*

Next

Never give out your password. [Report abuse](#)

2. Topics of Focus (Text only)

\*

- Academic Programs
- Campus or On-Campus Facilities
- Sports
- Philanthropic/Charitable Giving
- Geographic Location
- Post-Graduation/Career Opportunities
- Cost/Tuition
- Person of Interest (Student/Alumni/Faculty/Staff)
- N/A - None of these options describe the ad

3. (If topics of focus include) Person of Interest- Advertisement highlights or promotes:

- Student
- Alumni
- Staff/Faculty
- Other

#### 4. Included Keywords

- Student-focused (student-oriented, etc.)
- Personalized (individualized, etc.)
- Connections (relationships, etc.)
- Alumni (alumnus, etc.)
- State-of-the-art (trailblazing, etc.)
- Hands-on (engaging, etc.)
- Affordable (low-cost, etc.)
- Graduation Rates (success rate, etc.)
- Opportunities (options, etc.)
- Community (family, etc.)
- Prestigious (legacy, etc.)
- Online (virtual, etc.)
- Part-time (flexible, etc.)



## 5. Links to Other Social Media

- Instagram
- Messenger
- Twitter
- Youtube
- LinkedIn
- Flickr
- 

## 6. Links to Other Websites

- School Website
- News Website
- Database/Publication
- 

## 7. Visual Element

\*

- Text is accompanied by an additional visual element (photo, illustration, video, etc.)
- Text is not accompanied by photograph or other visual element

\* Required

## Visual Content

### 8. Type(s) of Visual Content

\*

- Photograph
- Illustration/Graphic Element
- Video
- Audio
- Map
- Poll
- Other

### 9. Topics of Visual Content

\*

- Student(s)
- Faculty
- Alumni
- Non-Student or Faculty Persons
- Mascot
- Facilities (buildings, classrooms, etc.)
- Campus (quads, statues, etc.)
- Sports
- Campus Event
- Philanthropic/Charitable Giving
- N/A - None of these options describe the ad

## Other

### 10. Message Elaboration

\*

- Central Route: Ad largely relays information or factual details
- Peripheral Route: Ad largely promotes the benefits of their institution (either in reference to the college experience or potential post-college results) or as a solution to perceived problem

### 11. COVID-19 \*

- Mentions COVID 19
- Does Not Mention COVID 19
- COVID 19 is not explicitly mentioned, but implied by the photo/visual element

**Appendix E – Thesis Schedule**

November 23rd, 2020 - April 1st – Working on thesis proposal (ongoing).

February 10th, 2021 – Thesis committee paperwork submitted to the College of Graduate Studies and Research.

February 15th, 2021 – Thesis committee approved by the College of Graduate Studies and Research.

February 16th thru March 12th – Work on methodology (e.g., creation of codebook, coding, testing for validity, etc.).

March 8th, 2021 – Complete literature review.

March 9th - March 31st, 2021 – Conduct pilot study.

April 1st, 2021 – Complete thesis proposal.

April 2nd, 2021 – Distribute thesis proposal to committee members.

April 15th, 2021– Thesis proposal defense.

April 18th, 2021 – Commence data collection and data analysis.

May 17th – Sign up for Summer I for thesis credit.

May 18th - May 28th, 2021 – Continue data analysis, including write-up of thesis findings and discussion.

May 31st, 2021 – Provide thesis to committee to review after chair’s review.

June 16th, 2021 – Defend thesis to committee.

June 17th - July 5th, 2021 – Make corrections to thesis as recommended by chair and committee.

July 7th, 2021 – Submit thesis draft to the College of Graduate Studies and Research.

July 9th - July 15th, 2021 – Print and bind thesis.

July 23rd, 2021 – Submit final thesis to College of Graduate Studies and Research.