

CORPORATE BRANDING VIA INSTAGRAM:
DOES VISUAL REPRESENTATION OF DIVERSITY IN BUSINESS COMMUNICATION
MATTER?

MASTER OF ARTS
IN
COMMUNICATION

AUGUST 2019

UNIVERSITY OF HAWAI‘I AT MĀNOA

BY
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Key words: Communication; visual communication, critical media studies; critical race theory, social media; Instagram; engagement; brand communications

Acknowledgments

I would like to thank my thesis committee for their personalized support and guidance over the last 2 years. To Dr. Ji Young Kim for all of the individualized mentoring. To Dr. Jenifer Sunrise Winter for supporting my non-traditional way of elevating my academic and professional success. Thank you to Dr. Kramer who allowed me to be expressive and light-hearted through my graduate studies. Mahalo to Dylan Ka'iini aka pu'uwai Dane for his coding assistance as well as his unwavering support and balance of fun. To Ly Nguyen for supporting coding and cheering me on from near and far. To my friends and family who listened to me and encouraged me to keep pushing forward.

Abstract

Among people in the United States, Instagram is the third most used online social media platform among adults (Perrin & Anderson, 2019). The author of this paper uses critical theory, critical race theory, and visual cultural communication analysis to examine the brand communications of five top brands on Instagram. Five scales were used to complete a quantitative visual content analysis to measure the representation of diversity; the relationship images containing skin tone diversity and social media engagement. A sentiment scale was utilized to analyze comments. Three research questions we asked: *RQ1: To what extent do images on Instagram (of the selected brands) present diversity of the people in terms of the skin tone, body size, gender, ableness, and age?* *RQ 2: To what extent can images which contain skin tone diversity (of the selected brands) be associated with the numbers of “like,” “shares,” or “comments”?* *RQ 3: To what extent are skin tone diverse images on Instagram (of the selected brands) associated with the sentiment of the “comments” images have.* An inventory of one month of images and 5% of the comments associated with them were evaluated. 256 images with 334 people along with 2,310 comments were analyzed. The results showed that there was no representation of visual disability. Ninety percent of images among the five selected Instagram brands were women. Eighty-seven percent of the people present in the photographs were youthful in age. The skin tones represented were typically light-colored tones. People who were in the images were typically adults with little to no body fat on a scales of little body fat to a high amount of body fat. Overall, it appears that the average number of likes increased for the diverse images but the comments and tags decreased. On average, images of people with diverse skin tones were slightly more likely to receive a comment with a positive sentiment, less likely to receive negative sentiment and were less likely to receive a neutral sentiment. There are examples of Eurocentric, homogenous ideologies of marketing present in all of the brands

studied. The selected brands show preferences towards certain types of physical characteristics. The companies reinforce their own ideologies using images that they present as a brand on Instagram. Images posted by brands on Instagram are consumed by millions of people around the world. It is vital for brands to consider how their content reinforces some ideologies and leaves many other physical representations.

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Introduction

A critical study of the relationship between Instagram (IG), visual communication and user engagement must begin by acknowledging the role of the internet. The internet functions as a tool which connects information, computers and other internet-capable devices together. In 1965, the first message was sent between computers from Massachusetts and California by computer scientists (Leiner et al., 1997). The internet matured, in-part, due to funding and resources provided to the science community. Federal funding created the commercial vehicle for elite, early adopters such as the Department of Energy, NASA Space Physicists, the U.S. National Science Foundation, and academicians to use the internet. It took approximately eight years for the internet to breach the boundaries of elite researchers to the commercial public (Leiner et al., 1997). A combination of satellite technology and greater access to the public fueled a communications technological era (Lester, 2014c).

The ways in which people use and engage with social media networks have changed as the platforms have evolved in technicality. Web 2.0 was an evolution of the first generation of the internet. Web 2.0 connected online communities of elite scientists *and* average people with new features such as audio recordings, images, videos, and social networking spaces. Social media advanced as an online environment that allowed people to connect and engage with one another (Sloan & Quan-Haase, 2017). In order to access social networking spaces, a person, group of people, or organizations, referred to as users, need to have an account or profile (Boyd & Ellison, 2007). Social media platforms of the early era included Six Degrees (1997), Live Journal, Asian Avenue, Black Planet (1999), Blogger (1999), MiGente (2000), Wikipedia (2001), Friendster (2002), MySpace (2003), LinkedIn (2003), Hi5 (2003) Facebook (2004), Flickr (2004), YouTube (2005), Twitter (2006)... and Xanga (2005) (Boyd & Ellison, 2007; van Dijck, 2013). Some of the first social media platforms to gain global users was MySpace and

Friendster which originated in the United States and Malaysia respectively. An increasing number of platforms exist and now serve people all over the world – Mixi, Facebook, Twitter, Reddit and Instagram to name a few (Boyd & Ellison, 2007).

Among all of the social networking sites, this research focuses on Instagram. As of 2018, Instagram hosted the third-highest number of active users among social networks. “Active users are the number of unique people [or groups] who use [the] product” (Facebook, 2018). Among the global population, 11% of users on Instagram are active users. Women are the top users of Instagram representing 50.4% of the population. There are approximately 480 million users between the ages of 18 to 34 years old, representing almost 90% of Instagram’s users (Brandwatch, 2018; Hootsuite & We are social, 2018; Statista, 2018). Facebook Business indicates that users of mobile devices who have Facebook and or Instagram accounts spend one of every five minutes on the platform (Facebook Business, 2018). Instagram has become a popular communication campaign tool for businesses, government, or non-profit organizations. As of March 2017, approximately 80% of accounts follow a business on Instagram (Facebook Business, 2018).

Given the pervasive amount of social media use in society, it is advantageous to analyze social media engagement from a global perspective. Practically, businesses are able to measure communication effectiveness and engagement on social media using online tools such as Facebook Insights, SocialBakers, Sprout Social and HubSpot. However, there is no consensus on the best way to do so (Schivinski & Dabrowski, 2016; Sharma & Verma, 2018b). Instagram, is a tool that has not received a large amount of academic research attention (Acuti, Mazzoli, Donvito, & Chan, 2018). This research will examine visual, global brand communications. Using a critical media studies framework, a visual and text-based content analysis was conducted of

five brands on Instagram. The research seeks to reveal how diversity of people in an Instagram images may influence user engagement. The results of this research can be used to inform how brand managers develop visual social networking strategies and measure user engagement.

Literature Review

Sharma and Verma (2018) believed that there should be more research on social media and consumer behavior with a focus on specific contexts (Sharma & Verma, 2018). Analyzing visual brand communication and consumer engagement from a critical perspective is a big task. A review of the studies conducted by previous scholars was used to guide the structure of this research. The first section of the literature review explores the ways in which critical studies have been studied in relation to business communication. The next section helps to offer a foundation for the process of visual communication. The final section provides a background on Instagram and reviews the research on social media engagement.

Critical Studies and Business Communication

Research on communication, social media in business environments, and critical media studies are important because it observes the activities of the millions of people who engage with social media religiously. In a globalized marketplace, measuring how diverse audiences respond to current marketing communication practices via social media is pertinent. Charles Lewis (1992) explored how past scholars used theories about ideology and hegemony to conduct critical analysis (Lewis, 1992).

Davis (2018) questioned how ideology and hegemony influence one another. Ideology is the conscious patterns of being and thinking that are agreed upon within a society (Lewis, 1992). Hegemony, in this context, is loosely defined as cultural dominance (Lewis, 1992). Davis posits that designed media is subject to forces of those in power and the elite. Human ideologies are shaped by our social identities such as “class, race, generation, and gender” (Lewis, 1992, pp. 280). It is not possible to separate a person’s ideology from their everyday activities and behaviors. Therefore, media is likely to contain cultural cues and information related to the

dominant ideology (Davis, 2018, p. 3). Ideology's intricate connection to identity shapes the ways that institutions and systems are designed and operated. Hegemonic ideologies within a community, means that the dominant population shapes the values of institutional structures and systems. Hegemonic systems are consciously maintained by reinforcing certain practices and not questioning others.

Hegemonic ideologies that are tied to power and privilege lead to "preferences" within social systems (Davis, 2018, p. 3). Preferences towards a particular social organizing system can be manifested through skin tone, religion, and political differences. Ideologies shape decision making and therefore can influence racist and other problematic systems of oppression. Systems of oppression by a dominant group reduces the number of resources and opportunities a less dominant group has access to. Laestadius (2017) insists the researchers examine how systems of "hierarchies are challenged or reinforced" (Laestadius, 2017, p. 578). This research uses critical analysis to identify hegemonic patterns in brand communications on social media.

Lewis (1992) encouraged future researchers to look closely at the topic of hegemony and ideology using qualitative, quantitative, and historical research methods (Lewis, 1992). Lewis highlights "visual representations of the terrain of ideology," "the world of popular culture," and "mass pictorial communication in general" as areas of research (Lewis, 1992, p. 289). One of the suggested areas of focus includes "advertising photography" (Lewis, 1992, pp. 289). The suggested pictorial media research methods could include inventorying media; observing users interacting with the media at various levels of the social stratosphere; and determining the types of meanings generated from the visual artifacts as they relate to the environment and the individual's identity (Lewis, 1992, pp. 289). By analyzing images on brand-specific social media accounts, the research explores the relationship between theory, practice, and user-experience.

In the 1970's, critical race theory was formulated by Derrick Bell and Alan Freeman to assist in combing through the complex relationships between race, racism, and power in structural and cultural systems. The challenge of conducting research using critical race theory and critical media studies is constructing a study that is not centered around Whiteness and or Eurocentricity. Eurocentric forms of dominance are frequently found in American social systems. Media is one system that should and has been analyzed critically because it is an essential factor in how societies are socialized (Davis, 2018). It is crucial to look closely at marketing communications because it is a “social influencer which conveys and supports societal norms and values and disseminates them in conspicuous manners across social, cultural, political, economic and psychological spectrums” (Davis, 2018, p. 4). Images in media have been emphasized as a significant medium to explore because “people of all backgrounds are exposed to similar messages and therefore may internalize and incorporate them into their own psyches” (Davis, 2018, p. 4). Photographs are materials that reflect culture and therefore are an excellent medium for this research (Leeuwen & Jewitt, 2001; Lewis, 1992).

Grier and Brumbaugh (1999) used a critical perspective to conduct an analysis of targeted marketing. They suggested that advertisements may include messages that are interpreted by a target market differently than a non-target market. Messages sent by advertisers can be offensive to some and humorous to others at the expense of the non-target group (Grier & Brumbaugh, 1999). Social status; sexuality; gender; perceived and assigned racial identity; and economic access are all personal identities that influence perception of images and content. The researchers believed that the goal of targeted marketing was to encourage the viewer to develop a relationship with the ad through the personal identity.

In their research, Grier et al., tested if people who identified as the target market were more likely than non-target market consumers to develop a positive perception of the ad as a result of relating to the ad. Grier and Brumbaugh found that although ads may have a primary target segment, there is an increased chance the advertisement would potentially cross over to non-target audience and therefore increase the chances for negative or positive responses to the advertisement. Although marketers and advertisers may have no mal-intent, they may experience the challenges of having their content negatively received by people from outside of their target market. The researchers believed that marketers have the opportunity to move beyond stereotypes of their target consumers to push for social change and improve perceptions of minority cultures (Grier & Brumbaugh, 1999).

Grier and Brumbaugh noticed that marketers create segments based on identities and then develop marketing content based on their knowledge of said segment (Grier & Brumbaugh, 1999). The advertising content produced for the target market may contain different indicators that suggest commonalities between the brand and the target. The indicators can be culturally specific; symbolically oriented; placed in a location of relevance to the segment; be written in a specific language or include commonly shared jargon. The goal of the marketer is to use such indicators to connect with potential consumers and create a positive relationship between the brand and the viewer.

A few researchers (Lin, 2013; Watson, Dejong, & Slack, 2009; Watson, Thornton, & Engelland, 2010) have conducted critical race studies and critical media research in marketing. Julian Lin (2013) used gestalt's principles to assess the research subject's responses to advertisements. Gestalt's principles are about the ways in which visual patterns and content can be perceived based on the ways they are grouped together (Lin, 2013). The researchers noted that

marketers had begun to explore whether more inclusion of lesbians in marketing would push straight customers away or if including minorities in commercials would decrease the ability of White consumers to connect with the ads. Previous research has been conducted on how people respond to skin color of light or dark complexion African American models in advertising “Chapko 1976; Gitter, O’Connel, and Motstofsky 1972; Hill 2002; Keenan 1996” (Watson et al., 2010, p. 186). Although not classified under critical race studies, Watson, Dejong, and Slack (2009) conducted research on how prejudice among White identifying people influenced how the individual responded to print advertisements.

Watson, Thornton and Engelland (2010), studied how African Americans perceived light and dark-skinned African American models in print advertisements. They found that African American males were more likely to find the lighter-skinned model, with the same facial features as a dark-skinned model to be more attractive. They also found that among African American females, the darker-skinned African American model was perceived as more physically attractive (Watson et al., 2010). Meyers (2011) also studied skin tone as it related to the consumer and their attitudes towards a product, the model, and the intent to purchase. The researcher found that for Black consumers, the ethnic identity of the model in the advertisement does influence their reception of the ad. In fact, there was a positive association with darker-skinned models for those people who had a strong association with their Black identity. They suggest that examining skin tone as it relates to ethnic marketing is an vital next step for future research (Meyers, 2011).

Smith, Evans and Shrestha (2004) researched how the Civil Rights Movement impacted African American’s consumer behaviors. Their research proposes that marketing strategies should be developed to be inclusive of diverse consumer personas. By using the Civil Rights Moment or a historical perspective, the authors were able to elaborate on how ethnic, national

and other cultural identities impact purchasing behaviors. Their research found that as African American, Caribbean Americans, and Black Americans increased in economic access, so did their motive to shop in alignment with their cultural values and experiences at the forefront. Smith et al. identified two reasons why marketers should be attentive to the needs of their diverse African American consumer base. One reason is to avoid implementing practices that would offend and further alienate a group with dark sociopolitical histories. Additionally, marketers should learn how to tread lightly in an ethnic community deeply impacted by social justice violations (Smith, Evans, & Shrestha, 2004).

Research conducted by Jon Sinclair (2009) focused on minority representation in the media, advertising and marketing. The research conducted about the Chinese minority in Australia and Hispanic people in the United States revealed some ways in which the patterns of minority inclusion in advertising has spawned. Sinclair suggested that minorities are excluded in media despite having reached “critical mass” in their countries of residence. In their argument, Jon states that the representation of minorities in media creates a deeper sense of citizenship and comfort among minorities because they are *seen* in consumer culture. Seeing oneself in consumer advertisement acknowledges that assimilation to a culture does not mean the invisibility of your existing cultural values (Sinclair, 2009).

Davis (2017) states that theories analyzing marketing communications and critical studies are lacking, specifically from the international perspective (Davis, 2018, p. 2). The lack of available resources from previous researchers makes it difficult to analyze marketing communications from a critical perspective. Davis (2018) believed that conducting a comprehensive and thorough literature review would allow for the development of cohesion

across this area of study. Their research focused on racism and provided valuable information for the purposes of this study.

The research discussed in this paper will add to previous critical media studies and critical communication scholarship by measuring the presence or absence of hegemony in visual imagery and measure user sentiment. Measuring the presence of diversity within an image is challenging. In this research, diversity is measured based on the presence of dissimilarity or similarity (hegemony) among the people in images and across five brands. The definition of dissimilar meaning “unlike” (Merriam-Webster Dictionary, 2018a). The definition of similar meaning to have “characteristics in common” (Merriam-Webster Dictionary, 2018b). This research will pull from a number of disciplines and focus areas on proposing an empirical and mostly objective measurement of diversity. Focusing on images of people, posted on Instagram, will allow the researcher to make a connection between brand communication strategies and representation of diversity.

Visual Communication

Visual cultural research is valuable because culture shapes the way people understand themselves; relate to others; and ascribe meanings to everyday objects. Visual cultural analysis explores an image from multiple perspectives – for example, the social and historical relationships within an image; the image as a material that is consumed, produced, and interpreted; the image as an experience of sharing aspects of culture that can be interpreted by observing or seeing an image; the image being interpreted through a culturally specific lens; and the decoding and coding of messages within an image based on identity (Lewis, 1992).

An image is an artifact of culture. It is a symbolic tool that documents the absence or presence of “people, places, things, actions and events” (Leeuwen & Jewitt, 2001, p. 4). Images

are “ideologically colored angles” (Rasmussen Pennington, 2017, p. 233). A photograph is a subjective representation of the photographer’s perception of reality. Visual analysis is complex because it is not text-based and there are limited resources for evaluating images (Rasmussen Pennington, 2017). Visual communication research can be conducted methodologically, qualitative, or quantitative (Leeuwen & Jewitt, 2001). Visual communication begins with the process of seeing. Once an object is perceived, humans naturally begin to inspect it. Simply, by viewing an image, a person is engaging with it. A seeing person begins to focus on specific objects within an image to collect information that may provide them with information. A consciously engaged person may interpret and understand images based on their experiences. The information gathered from the visual and previous experiences can be used to create meaning.

Images have the power to encourage a person to act, to think, and to learn. People are more likely to recall information that is presented in visual form and also accompanied by a text (Lester, 2014a). “Visual images [also] tend to be more engaging than text alone” (Guidry, Messner, Jin, & Medina-Messner, 2015, p. 248). There are many ways in which an image can be analyzed. One can study the color, form, depth, and movement. When looking at an image, it may or may not contain color. Color can be analyzed objectively, comparatively, or subjectively. The objective method of describing color would be based on a precise measurement of wavelengths. An example of the objective method would involve measuring a color based on nanometers. The comparative method of describing color would analyze a color based on its relation to other colors. For example, the comparative method would compare red to an apple versus to blood or a rose. The subjective method of color analysis considers the symbolic messages about colors based on cultural associations. For example, blue can be associated with

‘cooler’ feeling tones as opposed to yellows and reds which are associated with ‘warmth.’ “Color is a highly subjective and a powerful means of communicating ideas” (Lester, 2014d, p. 20).

The theories of visual communication consider what the brain perceives and what the brain senses. Sensory based visual communication theories help us to understand how a visual message can be alluring or repulsive to the preceptor. The interpretation of an image is based on a combination of seeing the image and adding a cognitive evaluation of the image. Studying individual aspects of an image can help to create an in-depth understanding of the image as a whole.

The cognitive processes that occur when viewing an image have an influence on what messages are gleaned from the image. If someone is looking at an Instagram image and they see a symbol of a brand that they like, they may stop to more closely observe it. Culture impacts how we interpret or create symbolism within a message we view. It impacts the way that we think, how we speak, the clothing we wear, what we consume and how we behave. The culture a person is raised in or has an affinity to will determine the meaning that they bestow an image (Grier & Brumbaugh, 1999; Lester, 2014e). The meaning that one person will get out of an image may be similar or dissimilar from the messages that someone from another culture receives. The words added to an image, caption, also impact the interpretation of the image. Together, our cognitive perception of an image and the words attached define how we interpret the messages delivered (Lester, 2014e).

Lester suggests that “the producer of messages should have an understanding of the diversity of culture within an intended audience and [they] should also be aware of the symbols used in images so that they are understood by members of those cultures” (Lester, 2014b, p. 128). An image could be analyzed based on content identification; production; functional;

expressional, figurative; rhetorical-moral; societal or period; comparative. This research focuses on content identification.

Social Media: Instagram

Social media is a tool that is mediated by computer technology. It is connected to the internet and allows users or participants to create virtual relationships between people, brands, and companies through photos, ideas, and videos (Quesenberry, 2016, p. 8). The affordances of social media, “physical properties or feature of objects or settings that ‘invite’ actors to use them in particular ways,” makes social media platforms a powerful tool (Lievrout, 2014, p. 23).

Some examples of social networking, social media platforms are YouTube, Pinterest, Snapchat, Twitter, Facebook, Instagram and LinkedIn. Instagram is a mobile and web-accessible, social media tool which is used to connect individuals, brands, and communities to one another through the internet. Launched on October 6, 2010, Instagram is a “home for visual storytelling for everyone from celebrities, newsrooms and brands, to teens, musicians and anyone with a creative passion” (Instagram, 2018). As a business, Facebook defines the Instagram product as a “community for sharing visual stories through photos, videos, and direct messages. Instagram is also a place for people to stay connected with the interests and communities that they care about” (Facebook, 2017, p. 5). There are 500 million active users on the social media network daily (“Our Story,” 2016).

Instagram is a two-way communication tool which allows an organization or company with a brand to send information to users who may be potential customers. Instagram is a rich media platform because it allows for the transmission of "text, sound, video, and images" instantaneously in both directions from anywhere there is an internet connection (Quesenberry,

2016, p. 24). The visual aspect of Instagram allows for a high level of communication from the brand to its audience, thus, making it a highly useful brand communication tool worth exploring.

The average user spends one in every five minutes on Instagram or Facebook. A user must have access to the internet in order to use Instagram online or via an app. A user can download the free Instagram application from the Apple, iPhone online application store or from the Android, Google Play Store. An account can also be created by going to [instagram.com](https://www.instagram.com). A user must select an available username in order to create a user account. After creating an account, a user can share photos or videos by uploading them to Instagram or they can take live images and videos using the application. Instagram feeds can be viewed on the internet using a browser. Currently, new posts can only be added to Instagram from a mobile device or tablet (Instagram, 2018).

There is also a text functionality that can be used as a caption. The caption can include hashtags and other sentiments of the user. Users can use geotagging to associate an image with a particular location in the world. This indicates that even a primarily image-based tool also includes texts that are descriptive of the image and text-based comments that indicate a user's response to content they have witnessed (Laestadius, 2017). There is typically a feed of content from the pages the profile is subscribed to or 'follows' (Sharma & Verma, 2018a). A user can have access to a feed of accounts that they are interested in following or they can use a search function to identify new accounts or explore other existing accounts within the network. Only a few of the affordances are captured in this research because the platform is continually evolving - it will be difficult to ever fully capture the complexity of the tool.

Instagram's unique properties influence the ways in which the tool can be used and also the type of research that can be conducted. There are different models, affordances, and purposes

for social media platforms. Instagram is a visually based platform that functions more publicly than Facebook which tends to be connected to intimate social relationships (Laestadius, 2017).

Social networking, social media platforms can be a place where companies and individuals can create and maintain relationships with one another. Companies can develop profiles, create posts, photo ads, video ads, carousel ads, and story ads. Advertisers can measure their advertising outcomes based on awareness, reach, traffic, engagement, lead generations, consideration and conversion (Facebook Business, 2018). People use IG to discover new brands and also use the information to act when they see a post. On Instagram, brands can target information to potential customers using the information available to them on the social media site. Users can be targeted based on follower status, location, demographics, interests, behaviors, lookalike audiences, and additional customizable settings (Instagram for Business, 2018).

Recent research conducted by Chen (2018) looked at college-aged students' response to marketing on Instagram. Their research provided more clarity on how people, 18 to 23-year old's, used Instagram and their perceptions of marketing communications on the platform. Young users utilized the platform for self-expression of identity and to develop relationships with others. Instagram was also used as a repository of memories. The research participants were open to being marketed to as long as it was subtle (Chen, 2018). Chen suggested that future research continue to explore users' perceptions of marketing communication on Instagram.

Research conducted by Guidry, Messner, Jin, and Medina-Messner (2015) looked at how social media, specifically Instagram, was used to manage crisis communication by companies. At the time, in 2015, they found that there was very little existing academic research on Instagram. Their focus on crisis communication management on Instagram, within the food industry, measured how the public responded by reviewing likes and comments. Guidry, et al.

(2015) determined the differences between company's responses and the influence on engagement rates. After reviewing 10 fast food companies and over 700 posts, it was determined that the employees of a company were more likely to post negative comments than customers. They also found that within the food industry, many of the comments were associated with their experiences related to customer service, work environment, food, and the brand (Guidry et al., 2015).

Social Media Engagement

In the past, the internet was used as a one-way tool in which information could be presented and found by an audience. As the internet became more accessible, so did the production of information. This change can be marked by Web 2.0 which is used to describe how the internet shifted from a one-way tool to a multi-directional tool. A dictionary published by the Institute for Public Relations (2013) defined social media as an accessible channel on the internet which provides an environment for users to generate content and engage in social interaction (Bowen & Stacks, 2013). Yadav, Joshi, and Rahman (2015) define mobile social media as a combination of elements including Web 2.0 with ever-present access to the internet; a mobile device which allows for access to the internet; and social media as the tool which connects consumers to brands through two-way communication channels (Joshi, Rahman, & Yadav, 2015). Quenesberry (2016) believed that social media allows for user-generated content such as text or rich media that would be accessible to other users of the online platform.

Mobile social media marketing, according to the American Marketing Association and Joshi et al. (2015), is the push and/or pull relationship between marketers and their customers. Consumers now have more input into the types of messaging that is directed towards them. It has become increasingly important for brand marketers and communicators to use information

learned from research to help inform their strategy. When a push-pull strategy is initiated, marketers push their customers to make a purchase by placing advertisements on channels their customers use. Traditionally, *push* marketing focused on the media channel sending information to the potential audience or consumer (Solomon & Tuten, 2018, p. 18). An example of push media would be print advertisements and still-image billboards. The pull strategy involves customers producing visible, user-generated content that flows back to the company (Quenesberry, 2016'; Yadav, Joshi, & Rahman, 2015). The relationship between consumer and businesses on mobile social media is representative of multidirectional communication.

According to Solomon and Tuten (2018) businesses that sell products and services to customers are highly likely to use social media marketing to build brand awareness. Social media marketers use different social media networks to acquire new customers, introduce new products and services and retain current customers (Solomon & Tuten, 2018, p. 21). Sinclair (2009) briefly mentions how the relationship between the push and pull of media can be applied to minority's interaction with mainstream media. Minority consumers may be seeking out relevant content among the information that is *pushed* to them. However, it will become increasingly imperative for businesses to understand what attracts, provides gratification for or *pulls* minority audiences towards their brand (Sinclair, 2009, pp. 190).

Brands can develop an interactive relationship with a broad or narrow segment of their audience by engaging in two-way communication patterns. The patterns involve listening to their audience and exchanging messages (Solomon & Tuten, 2018, p. 20). Engagement is a proactive element of a brand's social media management process. The concept of engagement is hard to measure because there are multiple ways to do so. Engagement is, "any action or response from a target audience resulting from proactive communications that creates a psychological motivation

or bond, an emotional involvement, and empowerment to engage through participation” (Bowen & Stacks, 2013, p. 10). The Conclave on Social Media Measurement Standards defines engagement as “some action beyond exposure, and implies an interaction between 2 or more parties. Social media engagement is an action that typically occurs in response to content on an owned channel” (#SMMstandards Conclave, Paine, Stevens, & Jeffrey, 2013). In the case of this research, engagement is defined as "involvement, interaction, intimacy, and influence between an individual and a brand" (Quenesberry, 2016).

Activities such as (electronic) word of mouth and impressions are commonly used to measure media impact. However, to measure authentic engagement at more than just a surface level, it is important to consider aspects such as web traffic, clickthrough rates, the number of users who like or follow the account, and how much intention to purchase has increased as a result of the tactics taken (Solomon & Tuten, 2018). Measuring reach, frequency, relative pull, conversions to sale, and clickthrough are ways in which companies measure their impact internally.

Paruthi and Kaur (2017) worked on developing a measurement for social media engagement. Their scale focused on measuring “conscious attention, affection, enthused participation, and social connection” (Paruthi & Kaur, 2017, p. 127). Through their analysis, they found that engagement was a measure of behaviors towards a company. They looked at the connection between the behavioral process involved in online social media engagement among Indian Facebook users. Their research was based on data collected from graduate students at a university. Paruthi and Kaur (2017) identified that engagement was based on the ways that customers interact with a brand. Despite their research, there is still a dearth of resources related to measuring online engagement (Paruthi & Kaur, 2017, p. 134).

In 2016, Schivinski and Dabrowski conducted research on how Facebook users in Poland respond to company-created social media marketing. The researchers looked at 60 brands within three industries. Their empirical study found that Facebook users respond positively to brand communications and engaged users are more likely to purchase products. One of their findings also emphasized that brand followers are more likely to trust information from their peers more than the brand. Similarly, Acuti, et al. (2018), learned through their literature review that user-generated content was influential in developing brand perceptions. Schivinski, et al recommended that brands create content that inspired fan participation and engagement. Positive user-generated communication has the potential to reduce the overall cost of paid company marketing. Unfortunately, with positive user communication, there is also harmful and neutral communication which the business cannot control. For future research, Schivinski and Dabrowski recommend studying other social media channels beyond Facebook. They also encourage researching cultures beyond Central Europeans and additional countries beyond Poland (Schivinski & Dabrowski, 2016).

In 2016, Quenesberry suggested that marketers must begin to focus their strategies on engagement in order to center their strategy on the most influential aspect of their business operations, the consumer. Focusing on consumer engagement as well as being attentive to the unique needs of a diverse customer base should be analyzed from a critical perspective because ignoring of the power that companies hold to shape behavioral patterns would be irresponsible. Technological advancements and telecommunications tool's ability to learn patterns of information without human-input makes researchers as well as marketing and communication professionals responsible for the audiences who may be impacted by their activities.

Social media networking has different user affordances; therefore, engagement varies by platform. For example, a person can share content with one another such as images, texts or sound; someone can discuss a topic via a platform with someone from thousands of miles away; a person can check for a local book store or café and read reviews from past visitors; someone else could make a fundraiser on an online platform for an upcoming walk to cure diabetes; another person can be introduced to a new profile via a search function and begin to learn more about a new person or product (Solomon & Tuten, 2018). Each platform allows for a user to engage with the online content either proactively or passively. Some social media sites are geared towards professionally related activities, while others focus on the interpersonal relationship development between people who are in close social proximity to the user, such as Facebook and LinkedIn. There are social sites that allow the user to connect with a larger, unknown audience and give the user options to participate by engaging with content by developing their own materials or by reviewing materials created by other users such as YouTube, MySpace and Wikipedia (van Dijck, 2013). There are game sites such as Words with Friends, The Sims Social, Angry Birds and Farmville that connect users through games. Many sites overlap in terms of the ways in which the user can engage with each other and with the content on the platform.

This research focuses on the population of users who use Instagram. The accessibility of Instagram as a tool for businesses to communicate directly to their audience, makes research on Instagram a relevant topic for many organizations. More than 2 million active advertisers are on Instagram globally (Instagram Business Team, 2017). As of June 2018, Instagram users, on average, spent 53 or more minutes on Instagram daily (Molla, 2018; Sprout Social, 2019). Users under the age of 25 spend eight more minutes on Instagram daily than people older than them

(Facebook IQ, 2017a). According to a March 2017 Instagram User Survey, 75% of users “take action” after viewing an inspirational Instagram post (Facebook IQ, 2017b). Measuring a consumer’s response to information delivered through social media can contribute to identifying what factors are essential for a successful, computer-mediated relationship between a brand and its audience. The following hypotheses are important and relevant.

Research Questions

To explore the impact of representation in social media images on the level of engagement, the following three research questions have been proposed.

RQ1: To what extent do images on Instagram (of the selected brands) present diversity of the people in terms of the skin tone, size, gender, ableness, and age?

RQ 2: To what extent can images containing diverse skin tones on Instagram (of the selected brands) be associated with the numbers of “like,” “shares,” or “comments”?

RQ 3: To what extent are images containing diverse skin tones on Instagram (of the selected brands) associated with the sentiment of the “comments” the image has.

Method

The methods used in this research include content analysis of global brands.

Content Analysis

The Barcelona Principles were created by some of the world's leading strategic communications specialists. The international association for the measurement and evaluation of communication was born out of a desire to develop a set of scales and measurement for media evaluation and communications research. Ragas and Culp's (2014) research focused on the seven Barcelona Principles of strategic communication standards in measurement and evaluation. The principles, revised in 2015, including setting goals; measuring communication outcomes; measuring organizational performance; using qualitative and quantitative methods; distancing advertising measurements from public relations and communications analytics; social media should be measured similarly as other mediums; and that measurements and evaluations should be transparent, consistent and valid (AMEC, 2019). The sixth principle states that "social media can and should be measured" and suggests using the Social Media Conclave standards (Ragas & Culp, 2014, pp. 142). The goal of this research is to examine brand activities to assess the social engagement outcomes of their strategic communications.

A content analysis was conducted on global brand Instagram accounts. The essential measurement of content analysis is "Who says what, to whom, why, and with what effect" (Babbie, 2016, p. 324). Content analysis is a methodological process in which the researcher systemically searches for characteristics, themes and patterns within human communications (Zeller, 2017). The goal of the content analysis is to be as thorough as possible while pursuing a critical perspective (Rasmussen Pennington, 2017). The researcher looked at themes and patterns, hegemony or dominant ideologies, in brand communications. In this case, the content

being analyzed were images on Instagram accounts. A cursory review of the verified Instagram accounts was taken to determine the research sample size. The sample of images selected for review was within a 30-day time period from February 15, 2018 to March 15, 2018. The dates were selected as a result of reviewing key holidays of select nations – France; Spain; and Switzerland.

The focus area of this research is on two areas – images on Instagram and user engagement. Five global brands were selected using a report written by Interbrand in 2018 which was used in a social media brand communications conducted by Brubaker and Wilson in 2018 (Brubaker & Wilson, 2018). The Interbrand annual report ranks the top 100 global brands based on internal and external factors which are measured methodologically. Since 1988, Interbrand has refined their brand evaluation process and become a leader in “monetary brand valuation” (Interbrand, 2018). The selected brands must meet the following criteria: At least 30% of revenue is earned from beyond the home region; there must be a noticeable market in Asia, Europe and North America as well as other markets; there must be profit being made over time; the brand must have a reputation in major economies around the world. Interbrand analyzed brands based on their role, financial performance, and strength. Interbrand data was drawn from annual reports produced by Thomson Reuters; consumer goods data from GlobalData; and social media analysis by Infegy.

Procedure

There are 21 sectors represented by the Interbrand data. The data is broken down into three regions; and 14 countries are represented among the global brands (See appendix A). Of the top 100 brands, one, highest-grossing, company will be selected from each of the following sectors; apparel, retail beauty, and luxury. Further research was conducted into each of the top two performing brands within each sector. The final brands for analysis were selected for the following reasons: Fashion was the top hashtag of 2017 (Instagram, 2017); beauty accounts are primarily followed by female-identifying millennials (Morning Consultant, 2018); and luxury brands appeal to persons with more economic flexibility. The brands selected were Chanel; H&M (Hennes & Mauritz); Loreal; Louis Vuitton; and Zara. Chanel and Louis Vuitton were classified as luxury brands, while H&M and Zara were classified as apparel brands. Loreal was the only makeup brand analyzed in this research.

The accounts that were analyzed were confirmed as official brand accounts based on the Instagram verification indicator, a blue checkmark next to the brand account username. Careful account analysis ensured that the accounts that were selected were not fan accounts or bots. A verified badge means that the account has been confirmed as an authentic “public figure, celebrity, or global brand” (Instagram Help Center, 2018). If a brand had more than one verified Instagram account, the account utilized for research was selected based on the primary language of communication being the English language. The primary account selected would be the account that was market “official” or “global” in the title. The final selection criteria for brands with multiple accounts was selecting the account with the most significant number of followers (see Appendix A).

The total number of posts reviewed per day was based on an average of the number of posts shared publicly by each brand. 30 days of posts was reviewed. The timeframe was from

February 15 through March 15 in 2018. The same timeframe was reviewed for each company. The timeframe was selected in order to reduce the influence national holidays may have on the frequency and subject of the posts by the brand. The total number of images reviewed was 256.

The data was collected from Instagram.com. Although third-party, social media analytical sites were researched, many of them fell short in providing the detailed, consistent information the researcher sought to use in this research. The information was downloaded, reviewed, and coded systematically then saved to a cloud drive. An online Qualtrics form was designed to facilitate the coding process. Links were sent to each coder. The same questions were asked of each images and comment selected for analysis.

Out of 87,463 of comments on a post, 10% of English language posts were retrieved for comment analysis. Of the sample comes, 50% of the most recent comments and 50% of the earliest comments were analyzed. Comments that were made by the brand were not considered when evaluating user comment sentiment. The sampling method was chosen because Instagram is a live platform, therefore, images can gain or lose comments at any time. The average number of comments per account was 17,493 on February 11, 2019. 10% of all comments were approximately 20 comments per post. Comments on posts were analyzed using a sentiment dictionary (Hu & Liu, 2004). The number of comments with a username was quantified. Each username was only counted once if it appeared on the same image more than once. Username tags were also not coded if it was the name of the account holder.

Measurements

When measuring images, the contrast between the images, representative visual dominance, and presentation of variety was analyzed (Lin, 2013). Contrast is the range of difference between comparable elements in an image (Lester, 2014a). In the analysis of Instagram images, contrast refers to the difference between gender expression, body size, skin tone; age; and physical ability. The research does not focus on other characteristics of human phenotypes, because of the potential to inject subjectively racist and presuicidal attitudes and behaviors into the research itself. The image inventory was analyzed by observing the characteristics of images that contained people (Lester, 2014b). Gestalt's principles will be used to determine similarity between content, measuring whether or not objects that are of the same character closely resemble one another or not. A critical perspective was used to review the relationship between the objects in the image, this would include the presence of dominance of certain groups of people with similar skin tones (see Appendix B). Skin color is an ideal variable to include in the research because they are cultural ideologies associated with skin tone and systemic oppression (Watson et al., 2009).

Each Instagram image was measured in terms of dominance and diversity. Dominance refers to how some elements of an image may be more pronounced or prominent than others. Dominance will be measured by how frequently certain types of images are represented (Lin, 2013). Diversity, within this context will refer to variety. Diversity will be measured by the degree of similarity or differences between images that contain similar characteristics. Diversity could be measured in multiple ways, however, for the purposes of maintaining objectivity, it may be best to remove the associations of diversity and culture until the results have been analyzed. Specifically, this research will explore the frequency of monochromacy or homogeneity versus

colorfulness among people represented (See Appendix B) (Lin, 2013). Age will be measured based on perception of age on visible parts of the person. The categories were selected based on suggested scales that have been modified for the purpose of visual analysis that are non-medical (Chien et al., 2016; Dicanio et al., 2009; Flament, Gautier, Benize, Charbonneau, & Cassier, 2017; Nkengne et al., 2008; Rawlings, 2006; Zhang, Hou, Feng, Chen, & Wang, 2017). A scale for measuring characteristics of aging was created. The scale was based on a four-point scale based on the degree of age indicated on the skin.

Each image was coded based on the scales mentioned above. Then, the values were then converted to a numerical key which was used to calculate the sum or average count. Once the average appearance of each characteristic was calculated, the outlying images were selected for additional analysis. The number of likes, shares, and comments were recorded for each image.

The primary goal of brands is to raise brand awareness, the primary metrics to measure the achievement of that objective would be views, impressions, mentions, comments and interactions (Solomon & Tuten, 2018, p. 351). Forrester Research, Inc., a market research company, believes that marketers should measure ways in which there is an emotional response and potential influence in someone's behaviors activities as a result of being exposed to content by a brand. There are four elements, involvement, interaction, intimacy and influence.

Involvement looks at how many people visit a page or the content is viewed – i.e. number of followers or viewers. Interaction measures how many people like or shared an image or the number of comments. Intimacy measures what people think about the brand. This can be measured by expression of positive or negative statements by the viewer, it could be what people think of the brand or the sentiment they hold about the brand. Influence would refer to the quantity, frequency, and score of reviews or ratings, the number of shares or recommendations

received; the number of people reached due to the use of an influencer in a campaign (Solomon & Tuten, 2018).

When people view content, provide feedback, and share content with others, one could say the brand is successful at engaging their audience. See Appendix B for the full list of coding schema used to measure the level of engagement. Frequencies of user engagement on each image, branding page/account, and further commenting activities was recorded. Engagement was measured by the number of posts, comments, and shares. For comments, not only frequency rate but also their sentiment was analyzed.

Sentiment was analyzed based on a sentiment dictionary created by Hu and Liu (2004). A sentiment scale was used to measure the positivity, negativity, or neutrality related to a comment (Gohil, Vuik, & Darzi, 2018). Comments that were written in the English language, but perhaps short-hand or spelled incorrectly were coded to the best understanding of the coder. All comments for all sampled images were coded for sentiment. First, sentiment was calculated for all of the images for each brand to determine the general sentiment of the brand. Then, the comments associated with the outlying, diverse images, were calculated for percentage of positive, negative, or neutral sentiment. There were also comments that were coded as unable to determine if the content was unintelligible by the coder.

Intercoder reliability

Three coders, one being the principal investigator, and two coders, reviewed images using a systematic process. Each coder reviewed approximately one third of the data. Due to the subjective nature of measuring composition of images and user-comments, inter-coder reliability testing was conducted between three trained coders (Leedy & Ormrod, 2013). A detailed glossary of definitions and a sentiment dictionary was provided to ensure that coders would be

evaluating images and text based on the same definitions. Each coder was trained using email and audio-recorded communication. The images were reviewed for composition; each image was reviewed for number of likes and username tags and comments on the image (see Appendix B for coding book). Average Pairwise Percent Agreement was utilized to measure intercoder reliability. The three coders were given 5% of the overall data to code to develop a coding reliability (Rasmussen Pennington, 2017). The intercoder reliability test for visual and comment content analysis resulted in an Average Pairwise Percent Agreement of 78.64% and 76.65% respectively.

Results

Three coders reviewed 256 images that were collected from Chanel (37), H&M (80), Loreal (34), Louis Vuitton (74), and Zara (31) for a period of 30 days. The coders conducted their analysis using five scales – gender expression, skin tone, age, size, and ability. Among all the images, there were 334 people visible in the images. According to the scales used in this research, out of 256 images, only 14% of images contained people of diverse skin tones. 2,310 comments were reviewed using a sentiment analysis scale. Coders analyzed all comments for sentiment. The comments were rated on a scale of positive, negative, neutral or unable to determine. Of all the comments, there was an average of 68% positive sentiment; 8% negative sentiment; and 11% neutral sentiment. 13% of the sentiment was unable to determine.

R1: To what extent do images on Instagram (of the selected brands) present diversity of the people in terms of the skin tone, size, gender, ableness, and age?

The results showed that 90% of images among the five Instagram brands were women. In fact, over 100% of images on Loreal were women (**Table 1**). Chanel followed close behind with only 8% of their images featuring men. The skin tones represented were typically light-colored tones. Intervals one and two and out five, made up over 84% of the images among the studied brands (**Table 3**). 87% of the people present in the photographs were young, i.e. the limited presence of wrinkles, sagging skin, skin spots, and other feature of age (**Table 2**). In terms of size, the people who were in the images were typically adults with little to no body fat on a scales of little body fat to a large amount of body fat. The smaller framed people represented over 86% of the people in the images (**Table 4**). Zara's Instagram page included more images of children (21%) than any other brand. 95% of Louis Vuitton image was made up of youthful, slender women. The apparel brands, H&M and Zara were 11% more likely to feature women in their posts. The luxury brands, Chanel and Louis Vuitton, were 17% more

likely to feature smaller-framed people of size 3 and 4. Of the five brands, Loreal was more likely to post an image with someone of a higher amount of melanin in the skin tone scale than the other brands (26%). Among all of the brands, there were no images that were coded as having a person with a visible disability.

RQ 2: To what extent can images containing diverse skin tones on Instagram (of the selected brands) be associated with the numbers of “like,” “shares,” or “comments”?

Overall, images of diverse skin tones appeared only 14.8% of the images among the 5 brands.

Chanel

37 Chanel images were analyzed. The average likes were 125,283 per image while the diverse images, on average, had more likes - 145,051. The number of average comments per 37 images was 451. The average number of comments on images which contains people with differing skin tones was only 29, indicating they performed worse than the overall average. The average user tag on the 37 images was 4, on the diverse images, it was 5. The data shows that for Chanel's images, the number of tags increase on the images with people of varying skin tones. Chanel was the only brand in which diverse images performed better in terms of likes and shares.

H&M

The average number of likes for the 80 H&M's images that were reviewed was 99,010. There was an average of 963 comments on the images. An average of 5 users was tagged in the comments of the images. When comparing the performance on overall images to the performance of images that contained darker toned people, the diverse image received fewer likes - 64,945; more comments - 3,360 and fewer shares - 3.

Loreal

Among the 34 Loreal images reviewed had an average of 12,545 likes, 63 comments 2 username tags. Among the 8 images that were coded for diversity of skin tone, there was an average of 9,037 likes, 51 comments and 1 share. The images that were diverse tended to have fewer likes, comments and tags.

Louis Vuitton

There was a total of 74 Louis Vuitton images. Of those images, there was an average of 98,375 likes, 468 comments and 4 user tags. Among the 7 images with diverse skin tones, there was an average of 64,217 likes; 182 comments and an average of 2 shares. There were less likes, fewer comments, and less shares.

Zara

31 images were reviewed for Zara. The average likes were 129,586, the average of 441 and 4 comments and user tags respectively. In comparison to the 5 images coded for diversity, there was an average of 80,857 likes, 230 comments and 3 user tags. The diverse images received, on average, few likes, and fewer user tags.

H3: To what extent are images containing diverse skin tones on Instagram (of the selected brands) associated with the sentiment of the “comments” the image has.

The total number of images associated with skin tone diversity made up an average of 16% of all the sample images. When comparing the luxury brands, apparel brands and the makeup brand – Loreal held the highest positive sentiment (83%); the luxury brands had the second-highest average sentiment (74%); finally apparel brands had the least amount of positive sentiment (61%). The apparel brands had the highest degree of negative sentiment. Luxury brands and the makeup brand shared a similar average sentiment (1%). All brand industries

performed similarly in neutral sentiment – Luxury brands (9%); (8%) apparel brands; and (10%) Loreal.

Chanel

The sentiment for the 4 images reviewed for Chanel yielded an average positive sentiment of 87%, no negative sentiment and 8% neutral. 5% of the comments had unknown sentiment.

H&M

11 images were reviewed for H&M. H&M had the lowest positive sentiment with 58% and the most negative sentiment at 33%. There was a rate of 8% neutral sentiment. 1% of the comments had unknown sentiment.

Loreal

There were 8 images selected for review for Loreal. The images received 83% positive sentiment rate and a 1% negative sentiment, there was a neutral sentiment 10%. 8% of the comments had unknown sentiment.

Louis Vuitton

Of the 8 images reviewed for Louis Vuitton, there was a positive sentiment of 61%, 1% negative and 9% neutral. The unknown sentiment was high, 28%.

Zara

There were 5 images considered as diverse in terms of skin tone. It earned 65% positive sentiment, 1% negative sentiment and 8% neutral. The unknown sentiment was high, 26%.

Representation across all five brands

Table 1: Diversity & Gender Expression

Gender Totals	# of People	Percentage
Total	334	100 %
Female	292	87 %
Male	31	9 %
Androgynous	9	3 %
Indiscernible	2	1 %

Chart 1: Gender Diversity

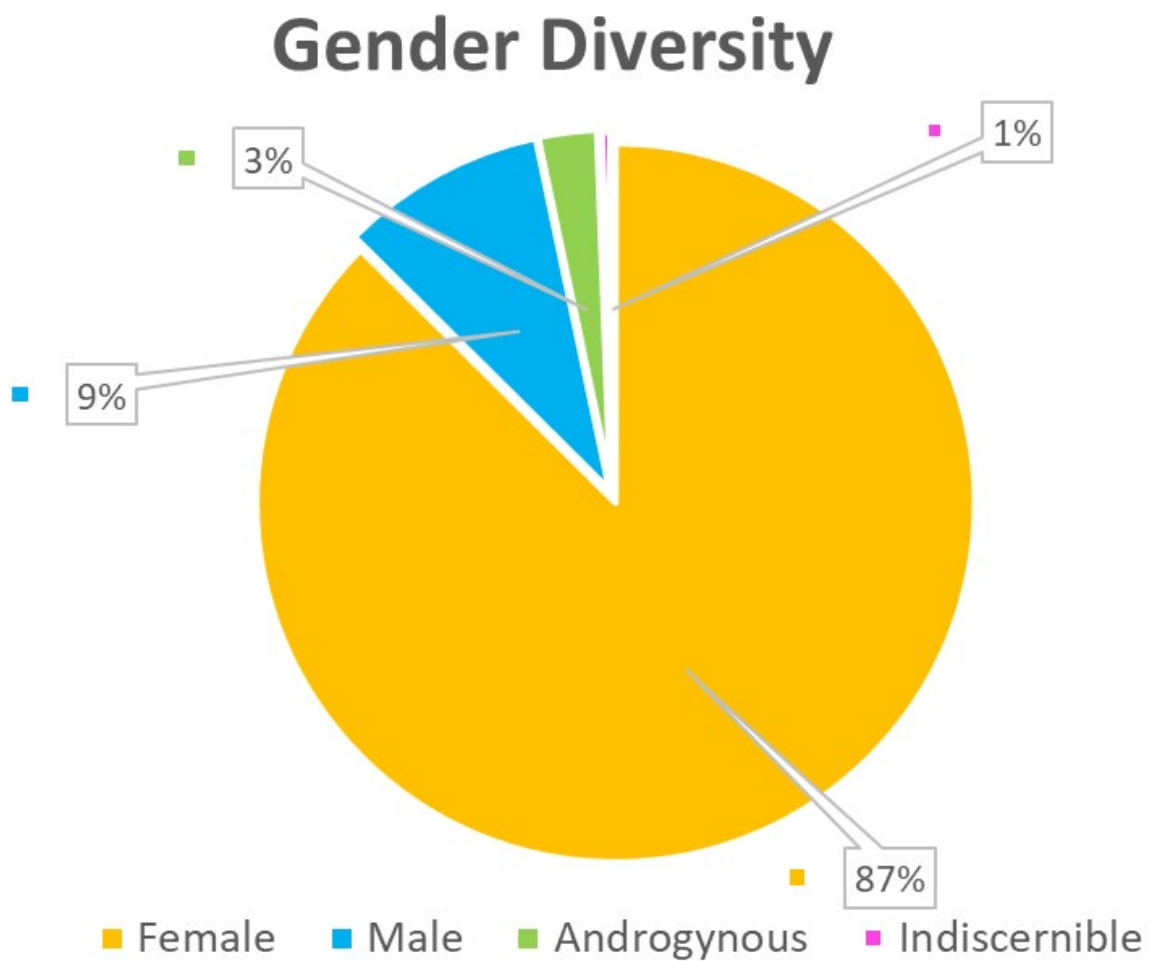
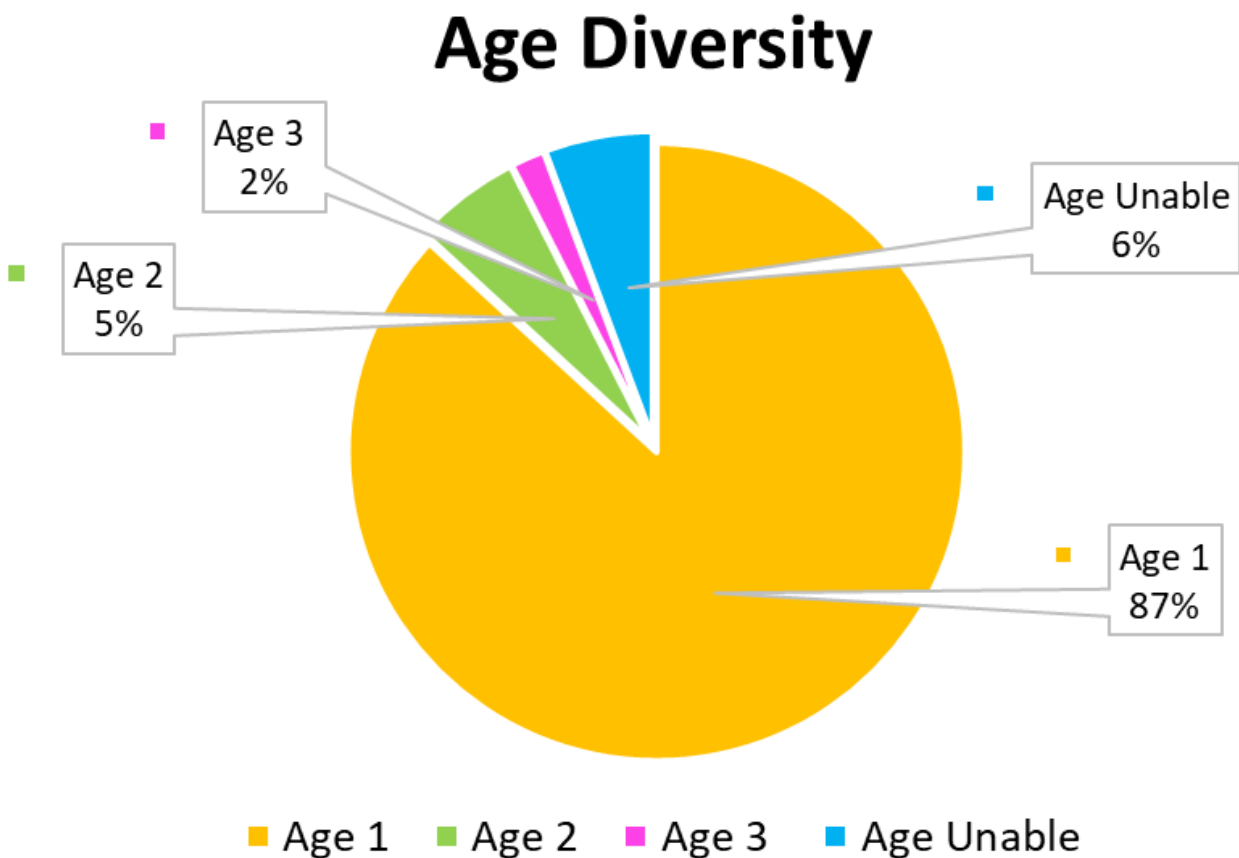


Table 2: Diversity & Age ¹

Age	# of People	Percentage
Age total	334	100 %
Age 1	290	87 %
Age 2	19	6 %
Age 3	6	2 %
Age Unable	19	6 %

Chart 2: Age Diversity

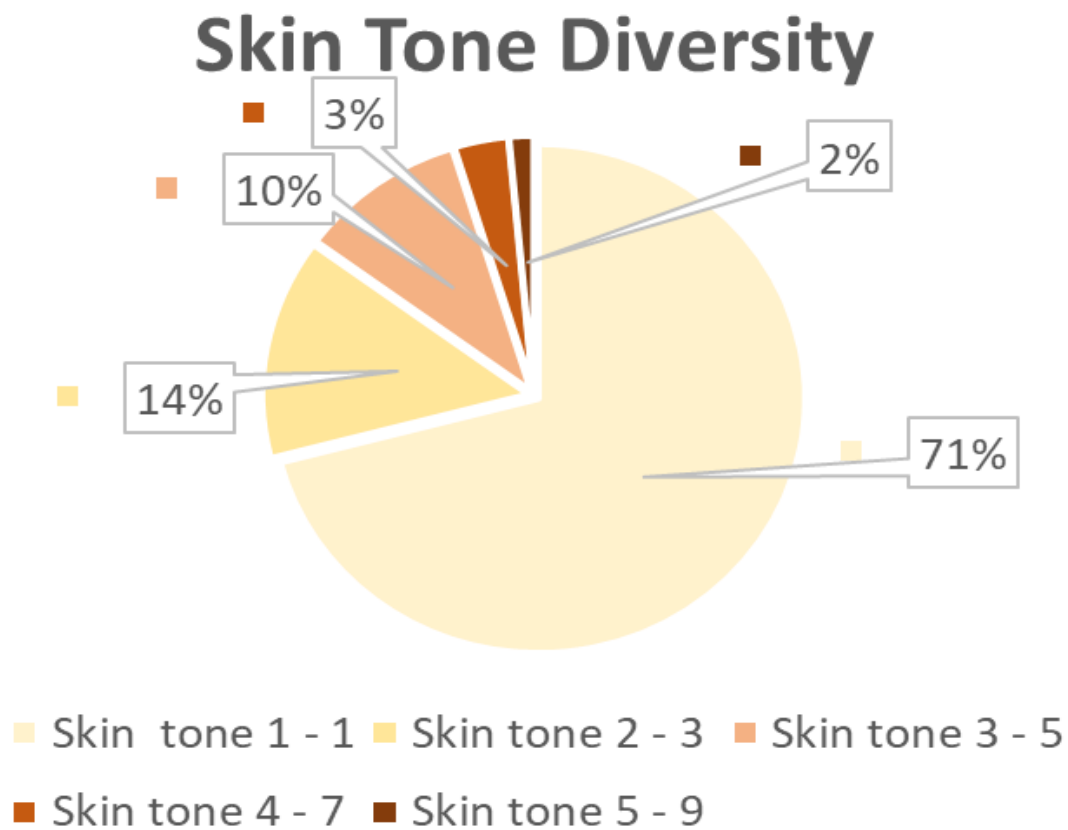


¹ 1 - No wrinkles in cheeks, near eyes, near forehead, around lips; no aging spots; skin is firm; skin tone is even; eyes are not sagging or drooping; skin appears smooth; 2 - little - no aging spots; skin tone is mostly even; skin is mostly firm; eyes are not sagging or drooping; skin appears to be mostly smooth; 3 - Deep wrinkles in cheeks, near eyes, near forehead, around lips; skin is firm; many aging spots; skin tone is very uneven; skin is not firm; eyes are sagging or drooping; skin is not smooth; 4 - Unable to identify.

Table 3: Diversity & Skin Tone ²

Skin Tone Totals	# of People	Percentage
Skin tone total	334	100 %
Skin tone 1 - 1	237	71 %
Skin tone 2 - 3	47	14 %
Skin tone 3 - 5	34	10 %
Skin tone 4 - 7	11	3 %
Skin tone 5 - 9	5	2 %

Chart 3: Skin tone diversity

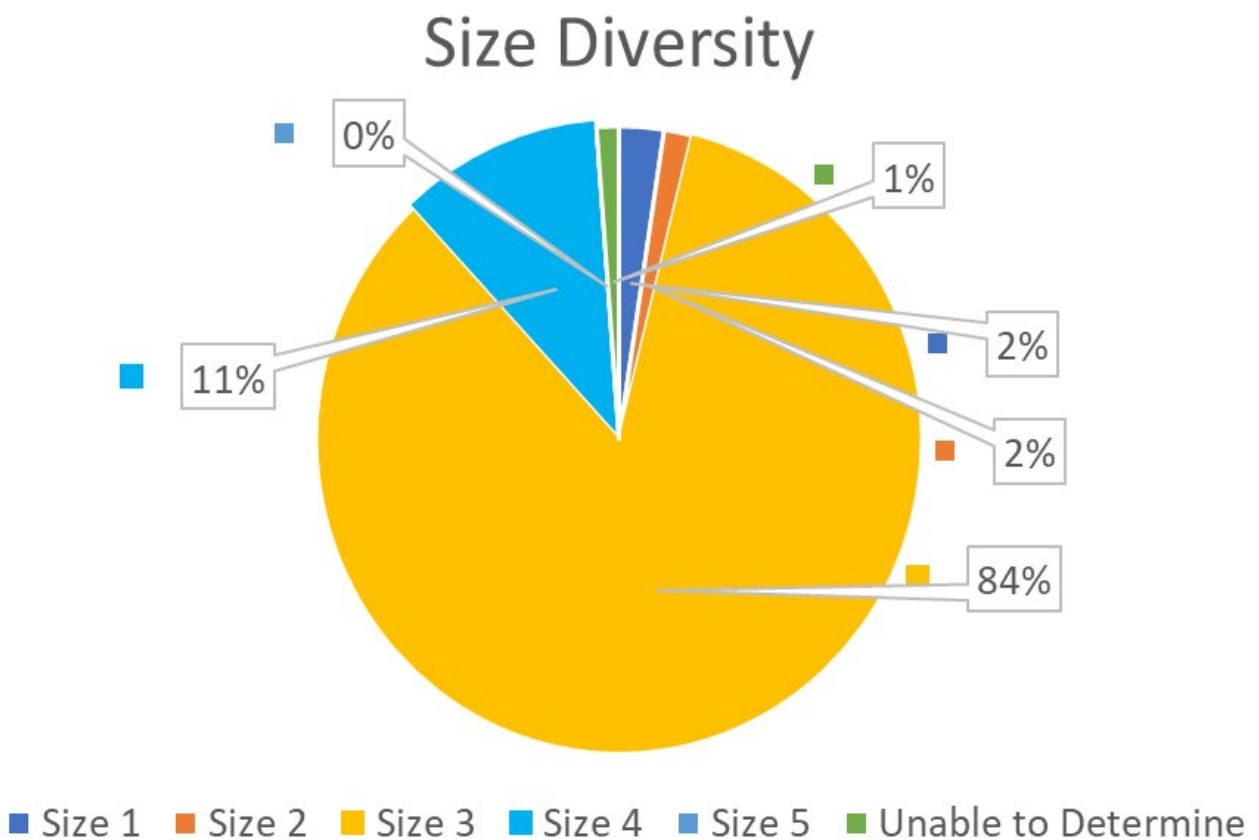


² Skin tone 1 – 1 through Skin tone 5- 9 refers to skin tones in a range from light to dark on an interval

Table 4: Diversity & Size ³

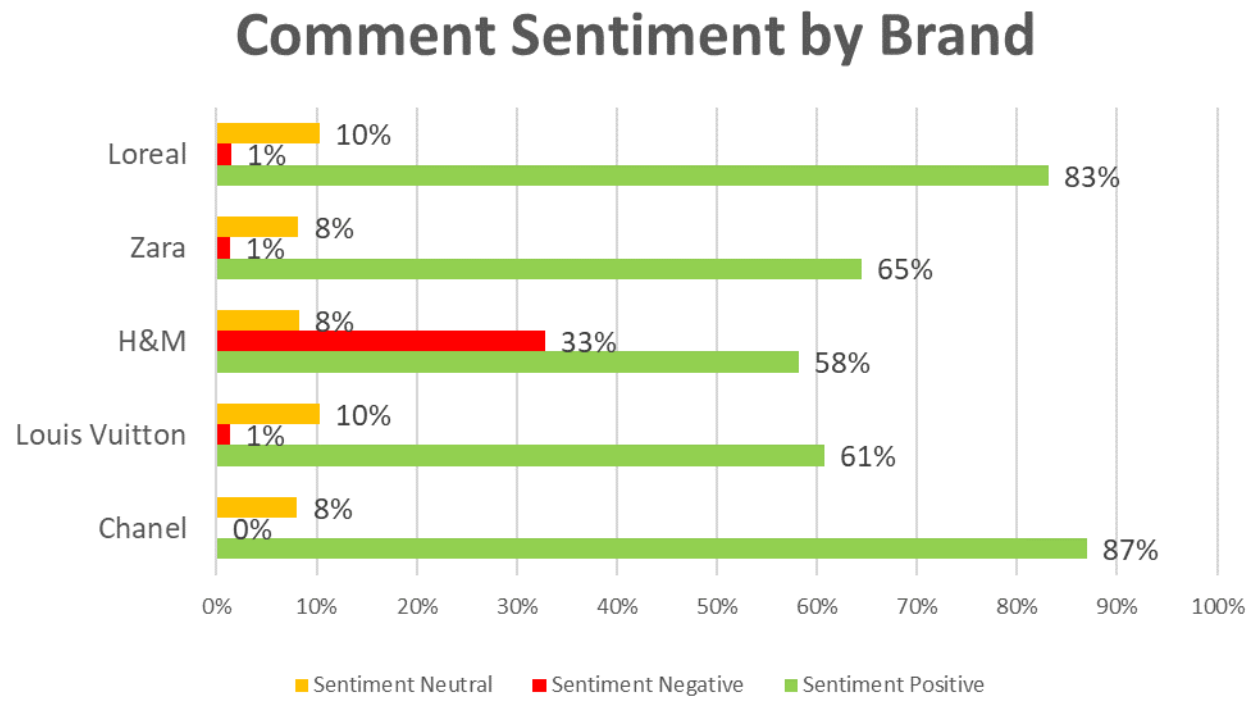
Size	# of People	Percentage
Size total	334	100 %
Size 1	8	2 %
Size 2	5	2 %
Size 3	281	84 %
Size 4	36	11 %
Size 5	0	0.00%
Size Unable to Determine	4	1 %

Chart 4: Size Diversity



³ Size 1 refers to an infant; Size 2 refers to a toddler / child; Size 3 refers to an adult with little body fat; Size 4 refers to an adult with some body fat; Size 5 refers to adults with more body fat.

Chart 5: Comment Sentiment by Brand



Discussion

Among the five brands, Chanel, H&M, L'Oréal, Louis Vuitton, and Zara, there were over 128 million followers and millions of likes. The aforementioned brands have an influence that spans the world. Given the brands large number of followers on Instagram, it is important to examine corporate brands influence on the media atmosphere. There are many opportunities for data exploration in such a rich data-set. The purpose of this research was to use a critical perspective to analyze the presence of diversity and measure user engagement across five top-performing global brands. From the data, we can learn more about the ways in which brands communicate about culture and the ways everyday people engage with the content.

As suggested by Lewis (1992), the systems that we use are not only upheld by those with power, but also those who agree to the ways in which we prioritize different groups of people. Perhaps the user's engagement lead brands to include or exclude specific attributes from their marketing because they do not respond well to it.

There are examples of Eurocentric, homogenous ideologies of marketing present in all of the brands studied. The brands show a preference for certain types of physical characteristics. The companies reinforce their own ideologies using images that they project onto Instagram. The images are then consumed by millions of people around the world. User's engagement with the images is a reflection of a collective idea of what type of content is enjoyed.

Despite being global brands like Chanel, H&M, L'Oréal, Louis Vuitton and Zara post images that are more homogeneous than diverse. Diversity, in this context, would be defined as images that contained a male or an androgynous person; **images that contained a person who has a skin tone interval above 2 on the scale**; images that contain older people, a scale of 2 or higher; and images with children and people who are not skinny (size 1, 2 or 4). There was no

representation of persons with a disability which means that any future images that contained people with disability would be Avant Garde.

Overall, it appears that the average number of likes increased for the diverse images but the comments and tags decreased. Chanel was the only brand that was likely to receive an increase in average number of likes and shares on the images with diverse skin tones. H&M experienced an increase in the number of average comments on the images with diverse people, however, those comments tended to a higher degree of negative sentiment. Unfortunately, the brand with the most significant number of diverse images, H&M, experienced fewer likes and fewer shares, but received more comments.

Comments on the images of diverse skin tones, across all five brands had an average of 71% positive sentiment, 7% negative and 9% neutral. Images with skin tone diversity received a positive sentiment of 2.92% more than the overall collection of images. The images were slightly less likely to be negative by .96%. The rate of neutrality was 2.94% lower than the overall collection of images. In other words, on average, images of people with diverse skin tone were slightly more likely to receive a comment with a positive sentiment, less likely to receive a negative sentiment and were less likely to receive a neutral sentiment. When considering each brand individually, the current data does not reveal strong enough trends to make an accurate statement about the relationship between images with people of diverse skin tones versus people of light skin tones.

One attribute of the data was that H&M exhibited a higher negative sentiment than the other brands. Looking into news reports about H&M at that time may provide some insight into why the organization experienced such a high degree of negative influence at the time. When using Google Search term, 'H&M controversy February 2018' it was determined that there was a

adverse public relations event at the time. The Washington Post, The New York Times, and the Chicago Tribune all reported on a controversy involving a design faux pas. According to a Washington Post article, there was a public response to an ad featuring a young Black boy in a sweatshirt with a monkey and the slogan “Coolest Monkey in the Jungle” on the front (West, 2018). Much of the negative response was on social media. The design and marketing blunder lead to H&M receiving negative criticism from celebrities around the world such as G-Eazy and the Weeknd (The Canadian Press, 2018). H&M stores in South Africa were forced to close after protests led to ransacked stores (Fortin, 2018). Although H&M is a Swedish company, their practices influenced highly negative response globally. H&M public relations executives released a statement of regret about any direction of subliminal message of racism projected and received as a result of the image of the young boy (H&M Group, 2018; Stack, 2018).

The study provides a unique analysis of diversity. A unique tool was designed to evaluate the various elements of diversity. A significant amount of data collection was conducted to determine the presence of diversity of brands that use Instagram accounts for marketing communications. The images reviewed and the comments collected are a very small portion of the available articles to measure. Analyzing 38 images is not a significant population, and therefore, grand generalizations cannot be made about all brands that integrate the use of Instagram in their brand marketing. The five categories represent a highly limited perspective of diversity among people.

To make the application of race a globally accessible concept, the research focused on skin tone instead of racialized categories. The decision to focus on skin tone is a highly limiting factor to analyze user response to diversity. Despite the limitations, the data does reveal that the presence of diversity, in terms of skin tone, may lead to a worse user engagement rate. In fact,

users are less likely to like the image, less likely to comment on the image and less likely to share the image across most brands. Perhaps images that contained people with darker skin tones may perform better or worse based on other characteristics other than the gender expression, age, skin tone or size of a person. Therefore, it must be acknowledged that diversity may not have a definitive impact on likes, shares and comments but it may have an influence.

Theoretical implications

Ultimately, this research contributes to the scholarship about critical media analysis. Looking more closely at how a social system is reflective of a dominant Eurocentric culture. It makes a connection between a significant economic media engine such as Instagram with the proliferation of people with particular characteristics. Analyzing social media content provides a modern, empirical example of hegemony in media.

Lewis (1992) distills musings by Stuart Hall who believed that a person needs to see oneself reflected in the environment around them to make sense of their identity. When we become blind to our culture, we forget that it is intentionally crafted by us. If this theory were to apply to the existing structure of social media, we have begun to create a one-dimensional perspective of society. Hall provides hope that our systems do not have to remain static. Conducting research that reveals how our systems of brand communications can be hegemonic can be an opportunity for inclusion and diversity.

Visual content analysis may not be perceived as a reliable measurement of diversity in images. Some critiques may argue that media such as images are too subjective and therefore is not a valid form of research. The scales and tools used to collect the analysis of visual images in this research generated some degree of intercoder reliability test. It adds to the potential systemic tools to measure a subjective topic such as diversity. Perhaps the tools can be used to help start a

conversation among media professional and communication scientists. Scientists may further this research by identifying ways to increase reliability among coders.

Practical implications

In the United States of America, Instagram is the third most used social media platform among adults. Data shows that the population of people who use Instagram and identify as White is seven and eight percent lower compared to Black and Hispanic people respectively. If the five brands examined in this research are representative of the practices of many other brands on Instagram the research shows that there is clear bias towards a small range of skin tones, smaller framed people, younger people, and people who appear to be female-presenting. It only creates more questions for examining the discrepancy between who represents culture and who are marked as invisible. There may be long term effects on the psyche of the people who are consuming the media and not seeing themselves despite a high degree of usage. One solution to combat the absence of self could be for users to specially curate their media to account for the absence of certain specific representation. They may consider intentionally following different sources of information to diversify their media feed.

The content analysis system in this study could be used by organizations interested in evaluating their social media strategy. For organizations who are unable to afford to pay for sophisticated data or do not have large amounts of data to analyze, the tools developed in this research may be ideal. It can be modified to support the data collection required for the company. Qualtrics may be cost-prohibitive but it is at a lower price point and can be duplicated on a smaller scale on free tools such as Google Forms.

The integration of visual analysis and sentiment analysis to measure user engagement may be used by public relations professionals to identify opportunities for quality control. This is

exemplified by the negative user sentiment in the February through March 2018 time period. The public discourse surrounding the monkey t-shirt incident is an example of the negative consequences a brand may experience if they are not careful. While not all bad press may decrease growth in capital for a business, it can decrease their relationship with their customer base. The H&M incident is an excellent example of how an image can have a strong influence on social media engagement. Businesses must take care to hire professionals who are able to design visual media that is aware of the socio-cultural power of an image and social media.

H&M was not and will not be the first large, global corporation to find themselves in a public relations nightmare. Unilever, Pepsi, Nivea, Abercrombie & Fitch and Urban Outfitters are just a few other companies that have been impacted by brand communication errors (Stack, 2018; Thomas, 2018). It is evident that user engagement and response to the controversy on social media lead to a sea of changes at H&M. A cursory review of the 2018 Annual Report released by H&M revealed that diversity was front and center of the progress forward. Many of the images in the magazine, the first as well as other subsequent images, indicated that the brand was incorporating diversity imagery into their brand. Additionally, diversity was mentioned as a top priority for future quarters to come. By the end of 2018, 100% of H&M managers were trained on diversity and inclusion and unconscious bias (H&M Group, 2019). Their report also indicated that there was a 22% decline in earnings of shares as compared to 2017. This could be due in-part to the controversy. If that is that case, there is more evidence that negative social media attention can lead to a decrease in the economic value of the brand for the corporation as well as the stakeholders.

Limitations and future study

By the time this research is released, the data from the study will be outdated. The rapid rate of social media communications means that the sentiment for the brands and the response to diversity on Instagram may also change with the social and broader political climate at the time. The tools used, Excel and Qualtrics, while essential, also require a lot of time for data collection and verification as well as training. Ideally, a faster, more accurate data collection tool might allow for current analysis that is timely. There are examples of where businesses use a digital system to analyze visual and text data such as SentiStrength and Nwosu (Gohil et al., 2018).

Future researchers can expand on this research by analyzing more luxury, apparel, and makeup brands to determine if there are naturally occurring patterns in user engagement. It may also be interesting to determine if higher negative sentiment can be associated with the negative press or public relation events in the news. Researchers can also measure if post controversy activities by the offending brand decrease the amount of negative sentiment towards brands.

The research conducted here highlights the difficulty of measuring a subjective and complex concept such as diversity. Designing and identifying reliable scales for different elements of diversity may allow more companies to analyze diversity and inclusion strategies with more concrete measurements. Future researchers should improve upon the existing scales in order to achieve at least a 90% reliability rate.

The content in the images and text can be subject to interpretation. For example, a comment such as “Coolest monkey in the jungle” which was a frequent comment on H&M images could be interpreted as positive or negative depending on the cultural association someone has with the statement. Future research can measure how people of other global cultures interpret the content. The research is also limited because it primarily reviewed English

language comments. Future studies could include an analysis of a sample of comments that reviewed the same percentage of comments for each language. Additionally, measuring how brands interact with their users impacts user sentiment towards images they comment on.

Narrowing down skin tone to a narrowly defined scale of five intervals limits the opportunity of the survey because skin tone variance is more nuanced. Future studies could use digital tools to provide a more accurate measure of skin tone. Future studies could focus on the degree that skin tone impacts the perception of beauty.

An exciting direction for research on visual communication analysis on Instagram could be to create an experiment that would answer the question, “What types of effects do Instagram images have on a persons’ attitudes if they view images of people with different degrees of diversity?” The goal would be to recreate an environment where participants can experience images and respond to the images directly. The experimental design would provide more control and allow for analysts to assess the environmental conditions that impacts a user’s response.

Conclusion

Social media is rapidly expanding beyond the boundaries of just our social and personal lives. The tools we use are reflections of the more exceptional systems that we operate within. Media systems connect large organizations to millions of people around the world. Examining how media is created and how the consumer responds to media is essential because it reveals our patterns.

Many of the patterns found in brand communications were exclusionary. If the brands researched for this study are any indication of the practices of other companies, there is work to be done. Recommendations for marketing and communications professionals would be to increase the number of people who have visible disabilities in their advertising. The elderly, males, and people who are more significant in stature should also be a part of their media strategy as well. Finally, there needs to be more skin tone variance included in their content. Making a conscious effort to create diverse media will be more reflective of the global population.

Recommendations for the average user of social media, specifically Instagram would be to intentionally seek out brands and accounts that are more likely to reflect diverse people. Users should be attentive to the types of content on their social media feed and should question the ways in which they or others may be absent from their feeds.

Media is a social reflection of a culture and there are so many people who are not being represented. If users are spending up to an hour a day on Instagram, there is a high probability that most people do not see themselves. The results show that the general population neither have a strongly negative or positive response to images with diverse skin tones. Perhaps there are other elements of diversity that would be more attractive to users. Further research is required to

understand the relationship between brand communications, diversity, and social media engagement.

Glossary of Terms

Age is the “accumulation of damage with time” (Dicanio et al., 2009, p. 758).

Androgynous “Identifying and/or presenting as neither distinguishably masculine nor feminine” (Human Rights Campaign, 2019)

Disability is a functional limitation that affect one or more of the major life activities, including walking, lifting, learning and breathing (National Center on Disability and Journalism, 2018).

Dissimilar refers to content being more “unlike” like alike (Merriam-Webster Dictionary, 2018a).

Diversity is measured by the representation of dissimilarity or similarity (hegemony) among the people represented within one image and across a collection of images.

Dominance refers to how some elements of an image may be more pronounced or prominent than others. Dominance will be measured by how frequently certain types of images are represented (Lin, 2013)

Engagement is “any action or response from a target audience resulting from proactive communications that creates a psychological motivation or bond, an emotional involvement, and empowerment to engage through participation” (Bowen & Stacks, 2013, p. 10).

Gender “The psychological, behavioral, social and cultural aspects that align with agreed-upon standards of being male or female (Human Rights Campaign, 2019b).”

Gender Expression “External appearance of one’s gender identity, usually expressed through behavior, clothing, haircut, or voice, and which may or may not conform to socially defined behaviors and characteristics typically associated with being masculine or feminine” (Human Rights Campaign, 2019b)

Sentiment A metric that assesses and determines the tone of a message; a ratio of positive to negative; typically evaluated as positive, neutral, or negative.

Sex A unit of demographic classification (Bowen & Stacks, 2013).

Similar means to have “characteristics in common” (Merriam-Webster Dictionary, 2018b).

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Appendix A

Unit of analysis: Still image or a collection of still images in a single post.

The information below contains details about the brands that were selected (Brandwatch, 2018).

The **bold selections** indicate which areas will be focused on in the research. The asterisk includes an added sector to be considered outside of the Interbrand recommendations. The beauty sector was added based on current user interest level in beauty brands on Instagram (Morning Consultant, 2018).

Brand Selection

- Regions Considered

- Asia Pacific
- The Americas
- Europe and Africa

- Sectors Considered

- Alcohol
- **Apparel**
- **Automotive**
- Beverages
- Business Services
- Diversified
- Electronics
- Energy
- Fast Moving Consumer Goods
- Financial Services
- Logistics
- **Luxury**
- Media
- Restaurants
- Retail
- **Sporting Goods**
- Technology
- **Beauty***

- Countries Considered

- China
- **France**
- Italy
- Mexico
- South Korea
- **Sweden**
- United Kingdom
- Denmark
- Germany
- Japan
- Netherlands
- **Spain**
- Switzerland
- United States

Appendix B

Codebook

Image Analysis:

First, the coder will examine the full body of images of 30 days of still image posts from the brand communication channel (Lester, 2014b, p. 130).

Each image will have a record of the brand, month, date and year the image was posted as well as the number of images in one post.

Inventory

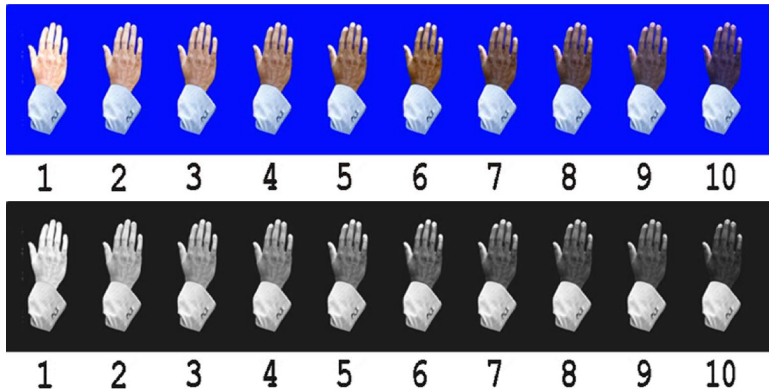
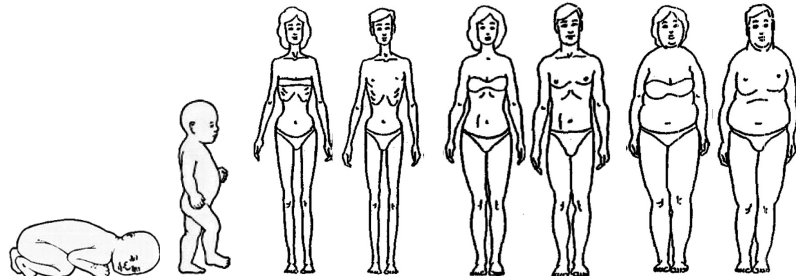
When reviewing the images, the coder will review each image based on the following lines of questions:

Questions for Image Selection	Example
<ul style="list-style-type: none">Indicate image color composition:<ul style="list-style-type: none">1) Black and white2) Color	Ex. Black and white vs color image
<ul style="list-style-type: none">Are the colors of the people in the image similar / dissimilar?	Ex. Is one color more dominant than the other

Questions for Image Selection	Example
<ul style="list-style-type: none"> • How many people are in the post? <ul style="list-style-type: none"> ▪ Yes / No / Unable to identify • If yes, how many people are in the post? 0 – 1,000+ • Are there people of different genders in the image? <ul style="list-style-type: none"> ▪ Yes / No / Unable to identify • What is the gender expression of the person? <ul style="list-style-type: none"> * Gender refers to the external appearance of one's gender identity, usually expressed through behavior, clothing, haircut, accessories, and which may or may not conform to socially defined behaviors and characteristics typically associated with being masculine or feminine. * Androgynous refers to someone who identifies as / physically presents as someone that is unable to be perceived as significantly masculine or feminine. <ul style="list-style-type: none"> ▪ Female ▪ Male ▪ Androgynous ▪ Unable to identify ○ Indicate the number of persons represented by each gender. <ul style="list-style-type: none"> ▪ Female ____ ; ▪ Male ____ ; ▪ Androgynous ____; ▪ Indiscernible ____ 	<p>Ex. Are there people in the photograph and what types of clothing are they wearing?</p>

Code Book:

When reviewing the images, the coder will review each image based on the following lines of questions:

Codebook Questions	Example	Associated Research Question
Measuring diversity		RQ1
<ul style="list-style-type: none"> Are the skin tones of the people in the image similar / dissimilar? <ul style="list-style-type: none"> Similar Dissimilar Unable to identify 	Ex. Someone of a darker skin tone as compared to someone with a lighter skin tone	
<ul style="list-style-type: none"> If yes on the previous question, what are the colors of the people in the image? <ul style="list-style-type: none"> 1 3 5 7 9 Unable to identify 	NIS Skin Color Scale 	
<ul style="list-style-type: none"> Indicate the number of people represented by each skin tone <ul style="list-style-type: none"> 1 ____ 3 ____ 5 ____ 7 ____ 9 ____ 		
<ul style="list-style-type: none"> Please select the approximate size of person. <ul style="list-style-type: none"> 1 Infant 2 Child 3 Skinny adult 4 Medium adult 5 Large adult 	Ex: Someone who may be thinner than the other person 	

Codebook Questions	Example	Associated Research Question
<ul style="list-style-type: none"> Please indicate the number of people of each size represented <ul style="list-style-type: none"> ___ 1 Infant ___ 2 Child ___ 3 Skinny adult ___ 4 Medium adult ___ 5 Large adult 		
<ul style="list-style-type: none"> Does the image showing people of varying gender expressions? <ul style="list-style-type: none"> No Yes 	Ex: A man / a woman	
<ul style="list-style-type: none"> Does the image show a person with a visible disability? Number of persons with a visible disability <ul style="list-style-type: none"> 1 2 3 4....etc. 	Ex. Yes, if a person has functional limitations that affect one or more of the major life activities, including walking, lifting, learning and breathing. Hearing Aid, walking stick, artificial limb.	
<ul style="list-style-type: none"> Are there people of vastly different ages visible in the post? *Age difference is indicated by the amount of features such as wrinkles, aging spots, skin firmness, sagging skin, etc. <ul style="list-style-type: none"> Yes No Unable to identify 	Ex. Visible lines in cheeks, near eyes, near forehead, around lips; aging spots; skin firmness; skin tone evenness; sagging or drooping eyes; skin smoothness	
<ul style="list-style-type: none"> What is the approximate age of the person represented? <ul style="list-style-type: none"> 1 - No wrinkles in cheeks, near eyes, near forehead, around lips; no aging spots; skin is 	Ex. Visible lines in cheeks, near eyes, near forehead, around lips; aging spots; skin firmness; skin tone evenness; sagging or drooping eyes; skin smoothness	

Codebook Questions	Example	Associated Research Question
<p>firm; skin tone is even; eyes are not sagging or drooping; skin appears smooth (1)</p> <ul style="list-style-type: none"> ▪ 2 - Limited visible wrinkles in cheeks, near eyes, near forehead, around lips; no aging spots; skin is firm; little - no aging spots; skin tone is mostly even; skin is mostly firm; eyes are not sagging or drooping; skin appears to be mostly smooth (2) ▪ 3 - Deep wrinkles in cheeks, near eyes, near forehead, around lips; skin is firm; many aging spots; skin tone is very uneven; skin is not firm; eyes are sagging or drooping; skin is not smooth. (3) ▪ Unable to identify (4) 		
<ul style="list-style-type: none"> • How many people are represented by each age group <ul style="list-style-type: none"> ▪ ____ No wrinkles in cheeks, near eyes, near forehead, around lips; no aging spots; skin is firm; skin tone is even; eyes are not sagging or 	<p>Ex. Visible lines in cheeks, near eyes, near forehead, around lips; aging spots; skin firmness; skin tone evenness; sagging or drooping eyes; skin smoothness</p>	

Codebook Questions	Example	Associated Research Question
<p>drooping; skin appears smooth</p> <ul style="list-style-type: none"> ▪ ____ Limited visible wrinkles in cheeks, near eyes, near forehead, around lips; no aging spots, skin is firm; little - no aging spots; skin tone is mostly even; skin is mostly firm; eyes are not sagging or drooping; skin appears to be mostly smooth. ▪ ____ Deep wrinkles in cheeks, near eyes, near forehead, around lips; skin is firm; many aging spots; skin tone is very uneven; skin is not firm; eyes are sagging or drooping; skin is not smooth. ▪ Unable to Identify (4) 		
<ul style="list-style-type: none"> • Does the image show a person with a visible disability? <ul style="list-style-type: none"> ▪ No ▪ Yes ▪ Unable to identify • Number of persons with / without a visible disability <ul style="list-style-type: none"> ▪ 		

Codebook Questions	Example	Associated Research Question

Engagement Analysis:

The goal of this research is to use a quantitative measure of analysis to determine levels of engagement use modifications of definitions and questions from previous research.

(#SMMstandards Conclave et al., 2013; Solomon & Tuten, 2018).

Interaction metrics measures how the target market respond to brand activities. Interactions will be measured by quantifying the number, recency, and frequency (Solomon & Tuten, 2018).

Codebook Questions	Example	Associated Research Question
<ul style="list-style-type: none"> Number of comments on a post (image) 	Ex. Number from 0+	R2
<ul style="list-style-type: none"> Number of comments on a post (image) that are tagged with a different user's username 	Ex. @username	R2
<ul style="list-style-type: none"> Number of times a post (image) was shared 	Ex. @username	R2
<ul style="list-style-type: none"> Number of likes on a post (image) 	25/ 1 million	R2

Comment Analysis:

The purpose of reviewing the comments is to measure how the public responds to images with more or less indication of variety or diversity among the images shared by brands (Guidry et al., 2015; Hu & Liu, 2004).

First, record the first 5% of comments associated with the post. Then use the following to code each comment.

Codebook Questions	Example	Associated Research Question
Sentiment:		
<ul style="list-style-type: none">• Sentiment of comments<ul style="list-style-type: none">○ positive○ negative○ neutral○ unable to determine	<p>Positive example:</p> <ul style="list-style-type: none">○ “So pretty!” <p>Mixed example:</p> <ul style="list-style-type: none">○ “Very good photo because of the composition. I think just need some lighting in this photo then great! 😊” <p>Negative example:</p> <ul style="list-style-type: none">○ “The worst store to buy online ever!!!!!! Never do it!!!! They have no commitment and respect for customers!!! @nike” <p>Neutral Example:</p> <ul style="list-style-type: none">○ “@hulyaatakuru”	R3