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Depictions of Ethnicity and Gender on the Front Pages of College and University Websites.

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ABSTRACT

Depictions of Ethnicity and Gender on the Front Pages of College and University Websites

By

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This study examined how women and men and people of different ethnicity are represented in photographs found on front screens of websites of colleges and universities offering four-year degrees and above in the United States. A content analysis analyzed 1,677 images of men and women found on front pages of 412 college and university websites. A six-point Body Index Scale coding instrument was used to determine if emphasis was placed on the face or body of the image, determined through an analysis of where images were cropped.

Frequencies of men and women were moderately split, with images of women representing 53.2 percent of the images and images of men accounting for 46.8 percent. Caucasians were more frequently depicted than people of other ethnicities. The face-ism theory, which asserts that images of women in photographs are cropped to emphasize their sensuality rather than their intellect, was not supported in this study.

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INTRODUCTION

Statement of the Problem

Increasing numbers of people are enrolling in colleges and universities[1] Prospective students are looking to the Internet as a source for college and university information to help in their higher education selection process.[2] Colleges and universities have developed marketing plans and websites[3] to attempt to reach prospective students with their institution's information. Websites, like other advertisements and promotional materials, usually contain photographs to communicate about the product, which in this study is the institution of higher education. The purpose of this study is to determine how women and men and people of different ethnicity are represented in the photographs found on the websites of colleges and universities offering four-year degrees and above in the United States.

Significance of the Study

When prospective students are attempting to learn more about potential colleges and universities, they may use the institutions' websites. When the students access the website, one of the first impressions they receive about the college or university is based upon what they see on the front page. In his research on the depictions of gender and ethnicity on *Fortune* 500 company front screens, King states "When an African American, Asian, Hispanic or person from another racial minority group logs onto a website, she would probably like to see a source similar to herself sometimes. If she sees Caucasians demonstrating the use of the product or representing the target audience, she may very well feel left out of the process."[4] The same sentiment applies to prospective college and university students who are looking not only for a school to earn an academic degree, but, in some cases, a place to spend the next four or more years of their lives, develop friendships, make professional contacts, and grow both professionally and as a person.

The author of this study attempts to determine how women and men and people of different ethnicity are represented in the photographs found on the websites of colleges and universities offering four-year degrees and above in the United States. The research also offers discussion about how the results of this study reflect on colleges and universities and how depictions of gender and ethnicity could affect prospective students and society.

Literature Review

Colleges and Universities

The National Center for Educational Statistics[5] reported that "enrollment in degree-granting institutions hit a record level of 14.8 million in the fall of 1999,"[6] and expected 15.3 million for 2001. The number of full-time students increased by 12 percent between 1990 and 1999. The NCES also expects enrollment to increase by an additional 16 percent between 2001 and 2011.

In another NCES[7] study, enrollment in public four-year institutions increased four percent from 1990 to 2000 and is expected to increase 19 percent by 2012 from 2000. Enrollment at private four-year institutions increased 21 percent over this same period and is expected to increase 16 percent from 2000 to 2012.

As stated in the study, "Women played a major role in the increase of enrollment between 1990 and 2000. The enrollment of women in college increased from 7.5 million in 1990 to 8.6 million in 2000, a 14 percent increase over the period."[8] The enrollment of men in college increased from 6.3 million in 1990 to 6.5 million in 1992, before decreasing to 6.3 million in 1995. Thereafter, it increased to 6.7 million in 2000. Under the middle alternative, enrollment of men is expected to increase to 7.5 million by 2012, a 12 percent increase from 2000.[9]

Reaching Potential Students

Because of this rise in college enrollment, advertising, marketing, and promotion of higher education institutions have become increasingly important. "Traditionally, when students applied to college the recruitment process began. Today, the application process is not the first step. Institutions are often doing research first, identifying desirable students, and then aggressively persuading those students that an institution is the best choice to meet their needs."[10]

Colleges and universities send out view books to try to attract students. Hite and Yearwood[11] performed a content analysis on college and university viewbooks to determine what information they contain. Their research found that 88 percent of their sample had pictures on the front cover, most of which depicted student life. Six percent of the covers were plain with nothing but the name of the school, while 19 percent of the covers were plain, but did include pictures. Three percent of the covers were plain with a slogan and four percent were plain. Student life pictures were found in 96 percent of the brochures. Seventy-six percent featured athletic pictures consisting of football, basketball, cheerleaders, and stadiums, etc. Campus housing pictures appeared in 38 percent of the publications. Some 92 percent of schools mentioned their website and encouraged its use for more information. "With the increasing level of cultural diversity in the United States, 60 percent of schools were compelled to emphasize the diversity of students, faculty, and activities in their brochures."[12]

Colleges and universities also use traditional advertising methods, such as television and radio. The Primary Research Group[13] found that 75 percent of colleges in their sample advertised on radio. Similarly, 36.36 percent of the sampled colleges advertised on cable television not controlled by that college and 41.79 percent advertised on broadcast television. CD-ROM versions of college and university view books also reach students. Of the colleges and universities sampled, 5.60 percent reported producing CD-ROM versions of their view books.

"Students have been exposed to a growing and more sophisticated array of electronic devices beginning with audio filmstrips and followed by local and on-line databases, computer laser disks, campus videos, stand alone computer software, CD-ROM programs and most recently the Internet."[14]

As Hartman states, "Technology can change the way teachers teach and students learn, and it is beginning to change how colleges admit and recruit high school seniors."[15] One way in which colleges and universities are changing the way in which they admit students is by allowing prospective students to apply for admittance online or download an application. For example, 30.70 percent of the colleges in the sample enabled applicants to apply through a college website.[16] Of the 60.30 percent that did not currently have the feature, 51.4 percent planned to add it within the next year.[17]

Another example of how students are relying on the Internet is the website Embark.com, a "provider of Web-based services for suppliers of education."[18] The company's online application system eliminates the need to fill out basic information for multiple applications and allows students to apply to more than 620 schools. Embark.com has reported an increase of more than 140 percent in the number of online undergraduates and graduate school applications it processed from July 1, 1999 through Jan. 1, 2000, compared to the same period in 1998/1999.[19]

Colleges and universities also create websites to reach prospective students. The Internet is beneficial to both colleges and universities and prospective students because "the web offers the user unprecedented control over how to peruse the information offered, and offers colleges unprecedented insight into how their audiences think about what it is they want those audiences to know."[20] In an online survey of more than 600 high school juniors and seniors, Embark.com found that "students who answered the survey suggested that the quality of the university's website affected their perceptions of that school."[21] Hartman estimated that in 1996 more than 1,200 schools had websites on the Internet.[22] The current study found that more than 75 percent of the colleges and universities in the sample had web pages. According to the Primary Research

Group, half of the colleges sampled described their website as more outward looking, that is they were "designed to attract new students, grants and other resources,"[23] rather than the 22.60 percent who described their website as more inward looking, or "designed to serve current students and faculty."[24] Only 27.40 percent described it as both inward and outward looking. Only 30.80 percent of the colleges in the sample had a full-time web master, someone who is responsible for managing and updating the college's website, to maintain the functions of the website.

View books and websites serve different functions in the college selection process. Using both qualitative and quantitative methods, LaFauve[25] found that "prospective students perceive a college's materials differently depending on the vehicle used to present them and that, in fact, they look to different methods of presentation for specific kinds of materials."[26] She determined that "web pages are more likely to be used as a source of information, consulted early in the decision-making process to narrow the field or late in the process after a decision has been made and navigated by students in ways that lead them to answers to specific questions they have already formed." In contrast, view books are more likely used as a "vehicle of persuasion,"[27] to help to "narrow the field of probable institutions on a prospective student's 'radar screen' down to a final few,"[28] and that they are "absorbed by a student in ways that lead to affective change."[29]

Leong, Huang, and Stanners[30] compared the effectiveness of websites and traditional media and their results supported LeFauve's findings. After using correspondence analysis and cluster-analysis techniques, the researchers concluded that websites "convey information and detail,"[31] and "communicate detailed information to its audience,"[32] but are less effective for "stimulating emotions and changing and maintaining attitudes."[33]

Internet websites provide a vehicle for prospective students to search for college and university information on their own. La Ferle, Edwards, and Lee[34] found that the most common reason teens use the Internet is for fun, followed by finding out more about colleges and universities. They also found teen girls were more likely to use the Internet to search for colleges

and universities than teen boys. Prospective students may use many Internet web pages, such as College Board Online[35]; College Net,[36] and College View[37] that facilitate college searches and provide information about higher education related topics, such as financial aid, scholarships and college entrance exams. They may also use search engines, such as Yahoo[38] or Google[39] to search for the specific college site they are looking for to provide them with information.

Internet

McCarthy[40] explains that the Internet began as a federal experiment and eventually connected computers at the University of California at Los Angeles, the University of California at Santa Barbara, Stanford Research Institute, and the University of Utah. It expanded rapidly with the Defense Department and the National Science Foundation wiring universities, government labs, and military bases. After slowly improving and expanding through the seventies, eighties, and early nineties[41], the Internet is growing. The Internet Software Consortium[42] estimated that the "Internet currently hosts 109,574,429 'advertised' connected computers (hosts) in 230 countries and territories."[43] They also estimate that the annual growth rate is 51 percent and that the Internet is adding 63 new hosts and 11 new domains every minute worldwide.

The Internet is common in home and commercial use. Home computer ownership and Internet usage has continued increasing. The United States Census Bureau[44] reported that 42 percent of households had a computer in December 1998. That number has since increased to 51 percent or 54 million households in August 2000. Since 1984, computer ownership and use in the United States has increased fivefold in the proportion of households with computers. Household Internet access has also increased to 42 percent in 2000, up from 26 percent in 1998.

School age children ages 6-17 years are also being exposed to computers and the Internet at home. Thirty percent of all children used the Internet at home in 2000, compared with 19 percent in 1998.Two-thirds of households with a school age child had a computer and 53 percent

of those had Internet access compared to the 45 percent of households without a school age child that had a computer, and only 37 percent of those had Internet access. Sixty-five percent of all children ages 3-17 years lived in a household with a computer in 2000.

Computers and Internet access at home varied in respect to different ethnic groups. According to the U.S. Census Bureau, "among children 3-17 years, 77 percent of White, non-Hispanics and 72 percent of Asians and Pacific Islanders lived in households with computers, while only 43 percent of Black children and 37 percent of Hispanic children did."[45] Internet access at home also varies with ethnicity. For example, "38 percent of White non-Hispanic children and 35 percent of Asian and Pacific Islander children used the Internet at home, just 15 percent of Black children and 13 percent of Hispanic children did."[46]

In addition to having Internet exposure at home, the National Center for Education Statistics,[47] reported that most children have Internet access at school. By the fall of 2000, 98 percent of the public schools in the United States were connected to the Internet. Comparatively, in 1994, only 35 percent of public schools were connected. Additionally, over half (54 percent) of public schools make available computers with Internet access to students after regular school hours. Secondary schools were more likely to make computers with Internet access available than were elementary schools. The availability of Internet access at school provides a way for children without home access to use the Internet.

Anderson's[48] survey of college students found that "the overall average online time of Internet using students was 100 minutes per day."[49] Browsing the web was the most time-consuming activity, followed by e-mail, games, chatting, Usenet activities, instant messaging, and chatting activities and cybersex.

Adults used the Internet at home to check on news, weather, or sports and business, and health practices. Children used the Internet at home to perform school related tasks such as research for assignments or taking courses online.[50]

Men and women also tend to use the Internet and computers for different purposes. Jackson[51] surveyed a sample of college students to determine gender differences in Internet uses to find that "females used e-mail more than males did, and males used the web more than females did,"[52] but that the gender difference disappeared when these two measures were combined to form a measure of overall Internet use. "Females reported more computer anxiety than did males, and males reported more computer self-efficacy than did females."[53] The research indicated that females were less likely than males to believe in the importance of computer skills, to believe that using a computer may cause health problems, and to endorse gender and racial/ethnic stereotypes about computer skills.

Depictions of Gender and People of Ethnicity in Various Media

Visually depicting men and women is not a new phenomenon. Humans have always found some method to communicate their thoughts and feelings visually. For example, the ancient Egyptians painted on burial tombs and sculptures.[54] In those paintings, women were frequently depicted in a mother or wife role. Noble women mostly worked indoors in a family setting, but women of a lesser status were depicted as dancers, musicians, maids, field workers, and much more.

As humans have witnessed technological advances, the media through which they communicate have also evolved. Today's mass communication media include print publications, such as newspapers and magazines, and broadcast media, such as television and radio. One of the newest mass communication mediums is the Internet. Because the Internet has recently become a popular mass communication vehicle, it is important to analyze how Internet websites depict women and people of ethnicity. Because the Internet has not been analyzed as extensively as other media, examining how other media have depicted gender and ethnicity provides a foundation for researching depictions of gender and ethnicity on the Internet.

Newspapers

Trayes and Cook[55] examined 16 daily newspapers to determine how front-page and inside photographs were handled. They studied 3,669 photographs and found that 91.6 percent of all the photographs contained images of people and 97.4 percent of front-page photographs were of people. Of the total photographs of people, 66.6 percent were men-only photographs, while 20.5 were women-only photographs and 11.2 were mixed photographs, containing images of both men and women. Of the front-page photographs of people, men-only photographs were 64.9 percent, women-only 19.1 percent, and both men and women were 15.4 percent. The study also examined frequencies of race of the people in photographs on front-page and inside photographs. Of the total photographs, 80.7 percent of people pictures were white-only, 9.8 percent were black-only and 3.4 percent contained images of both races shown together. Front-page photographs contained 91.5 percent white-only images, 4.3 percent black-only, and 3.2 percent contained images of both races shown together. The authors concluded that "judging from the general picture play in final editions of these respective newspapers over the period studied, it is apparent that they feel they can best succeed pictorially by following the emphasis outlined in this study: almost entirely people pictures, predominantly white and 'male-only.'"[56]

Singletary[57] examined frequencies of gender and ethnicity in photographs of major newspapers. His study also sought to identify changes made on front-page photography in selected major newspapers from 1936, 1956, and 1976. Of the 1,892 page one photographs, his data showed that white-only and black-only photographs decreased while mixed race photographs increased by more than eight percent. Male-only and female-only photographs both decreased as well.

In addition to frequencies, Luebke[58] studied roles portrayed by individuals in newspaper photographs. She examined four Connecticut newspapers to find that men accounted for 68.37 percent of the depictions while women accounted for 31.63 percent. Women were depicted as spouses 32.07 percent of the time whereas men were depicted as spouses 4.11 percent of the time.

Men were portrayed as sports figures or professionals 57.26 percent of the time, while 16.65 percent of the women were portrayed in these roles. As Luebke states, "Men are most likely to make page one because they are doing serious important things; women make page one because they are 'interesting.'"[59]

Blackwood[60] also examined how women were depicted and the roles in which they were portrayed in newspaper photographs. His study showed that men outnumbered women nearly 4 to 1 in the *Washington Post* and nearly 3 to 1 in the *Los Angeles Times*. In both papers men clearly dominated the first page, inside and business pages, and the sports section. In the lifestyle section, male and female representation was close to equal. Images of women were only depicted more frequently in the lifestyle section of the *Los Angeles Times*. More than three-fourths of the photos of men represented them as either politician/public official, professional or sports figure. A little more than a fourth of the photos of women portrayed them in these roles. Half the women in both papers were portrayed as socialite/celebrity, human interest, or spouse while about 10 percent of men were portrayed in these roles.

The Women, Men, and Media project,[61]as published in the St. Lewis Review in the article "Marginalizing Women: Front-page News Coverage of Females Declines in 1996, sponsored a study that also found that women were not referenced in text on the front-page of newspapers as frequently as men. Men received 85 percent of the front-page references whereas women had 15 percent of the references. Men also had more references than women in key local and key business pages. When women were depicted on the front-page, slightly more than half of the stories depicted women as victims, criminals, or in other negative news.

Television

In a one-week sample of 1996 prime time television on the four major networks, Mastro and Greenberg[62] conducted a content analysis of frequencies and attributes of ethnic majority and minority characters. The overall racial breakdown was 80 percent of the main and minor

characters were Caucasians, and 52 percent of Caucasians were in main roles; 16 percent were African American and 56 percent of them were in main roles; 3 percent were Latino and 44 percent of them were in main roles; 1 percent were Asian Americans and no Native American appeared. Sixty-four percent of all the major characters were male. Mastro and Greenberg also found that race of character was strongly related to program type. For example, the researchers found that 77 percent of Latino appearances were on crime shows, 51 percent of Caucasians were on situational comedies, and African Americans were distributed between sitcoms and crime shows. The authors also examined the characterizations of Latino and African American characters based on five-point, bipolar adjective scales, which described physical, behavioral, appearance, and conversational characteristics. Latinos had "the same income, intelligence, physical bulk and cleanliness as their Anglo and African counterparts,"[63] and they did not find them depicted as "lazy,"[64] but they did find stereotypes remained in the way they talked and dressed. African Americans were portrayed negatively by being depicted as the laziest, least respected, most provocatively dressed, and most disheveled of the minority groups. The study concluded that strides were being made in portraying Latinos more fairly, but African Americans were still all too commonly depicted in a stereotypical manner.

Elasmar, Hasegawa, and Brain[65] examined the frequencies and roles of females in prime time network television broadcasts of four major stations in 1992-93. Their content analysis found that males comprised 61.2 percent of the speaking characters whereas females were only 38.8 percent of the speaking characters. Their study also revealed that 17.7 percent of major characters in U.S. primetime were female, while 80.2 percent of females were classified as having minor roles. Females were depicted in light or comic roles 38.9 percent of the time and in serious roles 40.3 percent of the time. Females were more likely to be depicted in blue-collar positions than in professional, white-collar positions. The researchers concluded, "the woman on prime time television in the early 1990s was young, single, independent and free from family and work place pressures."[66]

Advertisements

In his book Gender Advertisements, Goffman[67] studied a nonrandom, purposefully selected sample of advertisements to determine and explain the messages advertisements give society about men and women. Through five categories, relative size, feminine touch, functional ranking, ritualization of subordination, and licensed withdrawal, Goffman chose sample advertisements to demonstrate how women are presented as weaker than men through the advertisements.

Kang[68] analyzed gender images in print advertisements to determine if the depictions of women have changed since Goffman's 1979 study. In a "conceptual replication,"[69] Kang took a random sample of magazine advertisements from popular women's magazines found in the years 1979 and 1991 and analyzed for the same categories that Goffman examined in his initial study. The initial categories were relative size, feminine touch, function ranking, ritualization of subordination, and licensed withdraw. Relative size is defined as the expression of the social importance of one person over another based on the greater girth and height. Feminine touch is tendency for women to be pictured "using their fingers and hands to trace the outlines of an object or to cradle it or to caress its surface or to effect a 'just barely touching.'"[70] Functional ranking is when men are more likely than women perform an executive role when pictured together. Ritualization of subordination is the holding of one's head or body in a position of prostration and licensed withdraw is when one is depicted doing something that removes them from the social situation.

Kang added the categories of body display and independence and self-assertiveness. Kang found that "the extent of sexism in magazine ads remained approximately the same from 1979 to 1991."[71] According to Kang, the lack of change is "perhaps because advertising has this powerful role: to depict women not necessarily how they behave, but rather, how we think women behave."[72]

Taylor and Stern's[73] 1994 content analysis of advertisements in leading business press, women's magazines, general interest and technical magazines examined the frequencies, roles, settings, relationship to other characters and publication type in which African Americans, Asian Americans, and Hispanic Americans were depicted. From other previous research, the authors based a portion of their study on the existing stereotypes with which each minority group was associated. For example, African Americans were stereotyped as "uneducated, low-status members of society in low-status roles,"[74] and were typically depicted as "athletes, entertainers or criminals."[75] Hispanic Americans were stereotyped as "uneducated blue-collar workers who are not well assimilated into mainstream American culture and who have large, close-knit families,"[76] and Asian Americans as "technically competent, hardworking, serious and well assimilated."[77]

The authors hypothesized that stereotypes would have implications for the product categories and magazine types in which minority models would appear. Their research found that of the total 1,616 advertisements, 17.8 percent contained at least one minority model, and of those 11.4 percent contained African American models, 4.7 percent Hispanic American models, and 4.0 percent contained Asian American models. Based on the percentage of the United States population at the time of the research, African Americans and Hispanic Americans were underrepresented while Asian Americans were slightly overrepresented. Their results did support their hypothesis in that there was a significant relationship in the type of magazine and the ethnicities represented. For example, depictions of Asian Americans were "highly skewed toward the business press and technical publications as opposed to women's and general interest magazines,"[78] and were overrepresented in advertisements selling technical products, while African and Hispanic Americans were underrepresented. Asian Americans were "rarely portrayed in outdoor, home, or social settings."[79]

In contrast, Hispanic Americans were overrepresented in family relationships somewhat more frequently than African and Asian models. Hispanic American models were also depicted most frequently in the women's and general interest category and in a business setting, but their

frequencies in the business setting were fewer than the other two minority groups. African American models appeared most frequently in the women's and general interest categories and were shown most frequently in a business setting. However, compared to other ethnicities, African American models were overrepresented in social relationships and underrepresented in business relationships.

Other Publications

Another study examined depictions of gender in business communication textbooks. Pomerenke, Varner, and Maller[80] analyzed 12 business communication texts photographs to determine frequencies of gender depictions and roles. Their research showed that the frequency of gender depictions were equally balanced; however, men had notably different facial expressions than women. Men were more likely to be depicted with a serious expression, while women were more likely to be depicted smiling. "This portrayal seems to reinforce generally held cultural role expectations. Women are supposed to be friendly, nurturing and happy. Men on the other hand, are supposed to take their jobs seriously and be in charge."[81]

Kuiper[82] examined gender representation in corporate annual reports to determine readers' perceptions of corporate climate. She analyzed 25 industrial and 25 nonindustiral annual reports from 1985 to find that "females were significantly underrepresented in the reports by 25 percent, whereas males were overrepresented by 35 percent"[83] based on their presence in the labor force at that time. However, her data suggests that this overrepresentation "bears little relationship to the perceptions of the corporation."[84] She did find a positive correlation with three perception variables: social responsibility (the organization's level of concern to social welfare), place of employment (who well employees liked working for the organization), and overall perception (generalized opinion of the organization), "suggesting that pictorial representation of females in annual reports has a stronger impact on perceptions of those aspects of corporate climate than does pictorial representation of males."[85]

Internet Depictions

King[86] analyzed *Fortune* 500 company websites in the United States to determine gender and ethnicity depictions. While research in other media shows male dominance, King found that "percentages of photographic images of women and men were virtually the same"[87] on *Fortune* 500 company websites. However, images of Caucasians outnumbered images of any other ethnicity, demonstrating Caucasian dominance in corporate America. African Americans accounted for 16 percent of the total, followed by Asians at 9.6 percent and Hispanics at 2.8 percent. Because of the global reach of the Internet and the diverse American population, King concluded that companies "should ensure their websites promote racial and gender diversity."[88]

Face-ism

The previous studies examined the ways in which images of women and people of different ethnicities are portrayed in the media by researching the frequency of women and people of different ethnicities depictions in media, the roles portrayed in the depictions and the setting in which they were depicted. Face-ism is another way to study how images of women and men are depicted in the media.

Developed by Archer, Iritani, Kimes, and Barrios,[89] face-ism describes the prominence of one's head and face over the rest of the body. It asserts that images of men and women in a photograph, drawing, or other depiction are cropped differently based upon their gender. Images of men are cropped to show their head and shoulders emphasizing intellect more frequently than women, who are more cropped lower to emphasize their bodies rather than their intellect.

In order to measure the prominence of the head and face in relation to the rest of the body, the researchers developed a ratio where the numerator is the distance, in millimeters, from the top of the head to the bottom of the chin, and the denominator is the distance from the top of the head to the lowest visible part of the body. The ratio is determined by dividing the numerator by the denominator. The resulting decimal is the index, which can be used to compare the face-

ism in photographs, drawing and depictions. A larger score would indicate that more of the body was depicted, and a smaller score would indicate facial prominence rather than emphasis on the body.

Archer, Iritani, Kimes, and Barrios,[90] tested face-ism in five similar studies. The first study examined newspaper photographs from five newspapers. Out of the 1,750 eligible photographs, 60.5 percent of were of men. In addition, they found that face-ism was supported because "there is a pronounced tendency to represent men with their faces and women with their bodies."[91] In the second study, the research team examined more than 3,500 cross-national photographs to determine if face-ism occurred only in American publications or if it existed elsewhere. The team then examined print media from other cultures and found support for the face-ism effect was not limited to the Unites States, but "that face-ism plays a consistent role in the depictions of the sexes."[92] In the third study, the research team also wanted to see if face-ism theory held up over time, so they examined artwork from six centuries. After analyzing 920 paintings, the team determined that face-ism was "not merely a modern invention,"[93] and that the face-ism theory was evident in paintings across the decades. The research team's fifth experiment examined if the different depictions of men and women would influence attitudes and perceptions of those depicted. The researchers concluded, "images high in relative facial prominence may produce more favorable attributes concerning intelligence, ambition, physical appearance and other fundamentally important qualities."[94]

Dodd, Harcar, Foerch, and Anderson[95] found the face-ism effect in American magazine photographs in two studies. Their first study examined cover photos of *Time* and *Newsweek* in the years 1938, 1953, 1963, 1975, and 1983. Their study supported face-ism because they found that the cover photographs of women "focused less on their face and more on their bodies than did photos of men."[96] The second study analyzed magazine advertisements from *Time*, *Ms*., *Fortune* and *Ebony* from the years 1976, 1981, and 1986 to determine how photographs of men and women differed in terms of facial expression. The researchers found that women were more

likely than men to be photographed with their mouths open, presumably portraying a less serious expression. They felt the mouth-open expression "presumably reflects surprise or amusement that are less serious than the mouth-closed expressions, contributing to the stereotype that women are superficial whereas men are serious and thoughtful."[97]

In a similar face-ism study, Hall and Crum[98] examined body-ism, or the prevalence of the use of women's bodies and body parts, in television beer commercials. They found that men were pictured more frequently in beer commercials than women, and they found that the attire worn by the models differed in respect to gender. For example, leisure attire (not including swimwear) was worn in the greatest number of ads for both sexes. For males, the next most frequently appearing attire was that of a blue-collar worker, whereas women wore swimwear second most frequently. The study also examined how the camera shots focused on body parts. Women's chests were seen twice as many times as men's. There were no male crotch shots; female crotch shots appeared in five ads. Hall and Crum concluded, "Though women appear less often than men, their bodily exposure is greater."[99] Their study reinforces the idea that women's bodies are depicted in a stereotypical manner to promote the sale of products.

King[100] researched the face-ism effect in 84 online newspapers photographs in 17 Latin American nations. He used a five-point body index scale, a modification of the face-ism index, "to achieve a more efficient measuring instrument of a large number of online newspaper photographs."[101] Another modification of his body index scale will be used in the present study to determine if the face-ism effect will be found on the front pages of colleges and universities in the United States. Further discussion of the body index scale will be found in the Methods chapter. King found that images of men accounted for 70.8 percent of the total images, whereas images of females accounted for 29.1 percent of the total. In addition to being depicted less frequently, images of females were cropped so that more emphasis was placed on their bodies, emphasizing their figures and sensuality rather than intellect. In contrast, images of men were cropped higher on their body, emphasizing intellect rather than sensuality. King also examined frequencies of

gender by story type. His research showed that "male visual dominance was evident in nine story types including disaster/accident, politics/government/military, sports, entertainment, crime, religion, business/economics, health/medical and arts. Images of women were more frequent in five story types including environment, fashion, family/culture, leisure/festivals/cooking and education."[102]

Using King's body index scale, Price-Rankin[103] examined the frequencies and body index scores of men and women in 750 online global newspapers in 74 nations. The study showed that images of men dominated the images found on the front page. Images of men accounted for 69.2 percent of the total images while 30.8 percent were women. The results of her study also support the face-ism theory. Men were cropped to show their head, face and eyes 2.6 percentage points higher than women; chest and waist up, 5.9 percentage points higher than women.

The studies of King and Price-Rankin show how the depictions of gender and ethnicity on the Internet are becoming increasingly important. The purpose of this study is to determine how women and men and people of different ethnicity are represented in the photographs found on the websites of colleges and universities offering four-year degrees and above in the United States.

Hypothesis/Research Questions

Many researchers have explored depictions of gender and ethnicity in television broadcasts, advertisements, and newspaper photographs. While some researchers, such as King and Rankin, have explored depictions of gender and ethnicity on the Internet, such research is not as extensive as traditional media research. With the wide availability and usage of the Internet, further research into Internet gender and ethnicity depictions are warranted. The author of this study attempts to further the understanding of gender and ethnicity depictions on the Internet by determining how women and men and people of different ethnicity are represented in the photographs found on the websites of colleges and universities offering four-year degrees and

above in the United States. In order to do so, the following research questions, hypotheses, and exploratory research were developed.

The research focused on the following questions:

Research Question 1: Are men and women depicted differently in the photographs found on the websites of college and universities offering four-year degrees and above in the United States?

Research Question 2: Are people of different ethnicity depicted differently in the photographs found on the websites of college and universities offering four-year degrees and above in the United States?

Research Question 3: Are images of men and women cropped differently on the websites of college and universities offering four-year degrees and above in the United States?

From previous scholars' research, the following hypotheses were formulated:

Hypothesis 1: Images of men will be depicted more frequently on colleges and universities front pages than images of women.

Hypothesis 2: Images of women will be cropped so that they score higher on the body index score than images of men.

Hypothesis 3: Images of Caucasians will be depicted more frequently on the college and university front pages than images of people of other ethnicities.

Exploratory research was conducted to determine the impact of the other variables. Will the affiliation of the institution affect the frequency of ethnicity and gender, body index score, and setting of the depictions? Will the region of the United States where the institution is located affect the frequency of ethnicity and gender, body index score and setting of the depictions? Will the gender of the person depicted in the photograph affect the type of setting in which that person is photographed?

Scope of the Study

The purpose of this study is to determine how women and men and people of different ethnicity are represented in the photographs found on the websites of colleges and universities offering four-year degrees and above in the United States. The front pages of 412 college and university websites were analyzed to yield 1,677 images to determine the frequencies of images of gender and ethnicity depictions, to determine if images of females were cropped in a stereotypical manner, and to determine if images of women and men and people of different ethnicities were depicted in a stereotypical manner according to the setting of the photograph. The data were collected in September 2002.

CHAPTER 2

METHODS

Introduction

The author of this study attempted to determine how women and men and people of different ethnicity are represented in the photographs found on the websites of colleges and universities. This chapter details the methods used to obtain and analyze the data for the research.

Research Design

Data collection began with the U.S. Department of Education's National Center for Education Statistics[104] (NCES) website, www.ed.gov/NCES. The NCES is the "primary federal entity for collecting and analyzing data that are related to education in the United States and other nations." [105] One section of the NCES is the Integrated Postsecondary Education Data System (IPEDS), which was "established as the core postsecondary education data collection program for NCES and is a system of surveys designed to collect data from all primary providers of postsecondary education."[106] One feature of the IPEDS is the IPEDS College Opportunities On-Line (IPEDS COOL), which provided a database of colleges and universities in the United States and was the tool that determined the population of the study.

Data Collection Procedure

The population of four-year and above colleges and universities was obtained by logging on to the IPEDS COOL[107] website, and entering the search criteria. Each individual state was selected along with each type of institution (public, private not-for profit, private for-profit) so that each state had a complete listing of four-year and above colleges and universities of each type. After each state's complete list was printed out, the states were alphabetized and their

colleges and universities numbered 1 to 2,788. At the time IPEDS COOL was accessed a total of 2,788 four-year and above colleges and universities were listed.

Research Randomizer's[108] website, (designed in 1997 by Geoffrey C. Urbaniak and assisted in 2000 by Scott Plous) was used to obtain a random sample of numbers, which would determine the random sample of colleges and universities. It produced a simple random sample of 500 numbers between 1 and 2,788. Those 500 numbers represented the corresponding numbers on the alphabetized list of colleges and universities in the population. Those 500 selected from Research Randomizer constituted the sample from the population and the front pages that were to be analyzed.

The methods used to collect the actual front page of each college and university four-year degrees and above in the United States were as follows: The five hundred numbers generated by Research Randomizer were marked on the listing of 2,788 colleges and universities. Those marked colleges and universities were then designated to be the sample of the population, and thus the front screens of those colleges and universities were examined. By choosing the institution on the IPEDS COOL website, the user was re-routed to the front page of the institution. Thus, the user was looking at the front page of the website. Because websites could be altered on a daily, weekly, or monthly basis, it was important that the websites be collected from the same time period. During a two-week time period in September 2002, the front pages of the sample were saved for later analysis.

If the college or university did not have a front page, or if the front page did not load properly or completely, that institution was disregarded from the sample and the next college or university on the state's list was chosen. In the event that the particular state's college and university list was exhausted before replacing the front page, that particular number was abandoned rather than obtaining an institution from another state. This process resulted in a total of 412 colleges and university front pages that were analyzed instead of the original sample of 500.

Next, the front screens of the 412 online front pages were saved to a computer disk under the command structure "File/Save As." Each front page was saved as a web archive single file on a disk to be analyzed later. Each front page was stored in this manner until all websites in the sample were saved.

College and university websites can be quite large and contain many links and pages. When a prospective student or other user enters the site, he/she will see the front page first. This is the only page that all users are sure to see. From there, each user determines which pages will be visited and in what order those pages will be visited. Not each user will visit the same page or see the same images; however, each user will see the same image on the front page. Because of the enormity and complexity of college and university websites, only the front pages were analyzed. The process of analyzing only the front page is similar to the widely accepted research practice of analyzing the front page of newspapers when studying depictions of ethnicity, gender, and other topics.

Data Analysis Procedure

After all the websites were saved, the front screens were then analyzed individually. Each photographic image of a human being was coded using the identified coding scales. An intercoder reliability score of 90 percent was obtained between a graduate research assistant, an African American woman, and the primary researcher, a Caucasian woman. The primary researcher then coded approximately 75 percent of front screens, while the assistant coded the remaining front screens. After all data were entered into a computer, the Statistical Package for the Social Sciences (SPSS) was used to conduct chi-square analyses and analyze the results.

Only the front screens of the websites were examined. When examining the photographs, the unit of analysis was each individual image of a human being in the photograph. Only human forms were coded. No drawings, cartoons, or mascots were used. Photographs that did not contain any human forms, such as photographs of buildings, vistas, or crests were disregarded.

Photographs where the face of the human was not identifiable were also disregarded. The significance level was set at <.01 with this size sample of images.

Each image of a human being in the photographs was coded using the following scales:

The first category by which the photographs were coded was the type of institution the college or university was classified as, based on the IPEDS COOL website. They were coded as such:

1=Public

2=Private-for-Profit

3=Private-not-for-Profit

The second coding category was the region of the United States in which the college or university is located, as devised by NCES:

1=New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

2=Mid-East: Delaware, Maryland, New Jersey, New York, and Pennsylvania

3=Great Lakes: Illinois, Indiana, Michigan, Ohio, and Wisconsin

4=Plains: Iowa, Kansas, Minnesota, Missouri, North Dakota, South Dakota, and Nebraska

5=Southeast: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia

6=Southwest: Arizona, New Mexico, Oklahoma, and Texas

7=Rocky Mountains: Colorado, Idaho, Montana, Utah, and Wyoming

8=Far West: Alaska, California, Hawaii, Nevada, Oregon, and Washington

The third category counted the number of humans depicted in the photograph. No scale was used. The humans were counted and the number was recorded on the data-recording grid.

The fourth category was gender of the humans in the photograph. The following scale was used:

0=Female

1=Male

9=Cannot determine/no photograph

The fifth category was the ethnicity of the humans in the photograph. The following scale was used:

1=Caucasian

2=African Descent

3=Latino/Latina

4=Asian

5=Middle Eastern

6=Native American

9=Cannot determine/no photograph

The sixth category was the Body Index Scale of the humans in the photographs. The Body Index Scale gives a numeric value indicating where on the human body the photograph was cropped. The Body Scale Index is a modified version of the face-ism index used by Archer, Iritani, Kimes, and Barrios in their research. The Body Scale Index is a six-point scale based upon face-ism theory research by King.[109] The following scale was used:

1=Head, face and eyes

2=Head and shoulders

3=Head, shoulders to mid-line of the chest

4=Below mid-line of the chest, to slightly above the hips

5=Hips, buttocks, thighs, legs to knees

6=Legs below knees to feet or full body

9=Cannot determine/no photograph

The seventh and final coding was the setting of the humans in the photograph. The setting in which the humans are photographed gives insight into determining if images of gender and ethnicity are depicted stereotypically. Academic settings were defined as settings where the

person is in a classroom, laboratory, library or computer lab or where they are actively engaged in a form of studying with books or other academic instruments. For example, an individual photographed reading a text book outdoors would be coded as in an academic setting. Social settings were defined as settings where two or more humans are together, not engaging in competitive, physical activity. To be in a social setting, the people in the photograph look as if they are interacting with one another. For example, two students facing each other, where it appears they are having a conversation, would be coded as a social setting. Athletic settings were defined as settings where humans are engaging in physical activity or in the presence of sports equipment or on the playing arena. For example, a person kicking a soccer ball on a field would have been coded as an athletic setting. The coders analyzed and discussed many photographs outside of the study sample to come to agreement about the setting classifications of the people in the photograph before determining inter-coder reliability and conducting the study. The following scale was used:

1=Academic

2=Athletic

3=Social

9=Cannot determine

The independent variables in this study were the affiliation of the college or university, the region of the United States where the institution is located, and the ethnic group and gender of the photographed individuals. The dependent variables were the settings in which the humans are photographed and the body index score of each person in the photograph.

Threats to Validity/Limitations:

This study examined how women and men and people of different ethnicity are represented in the photographs found on the websites of colleges and universities offering four-year degrees and above in the United States. From this research, it cannot be determined why the

web editors/webmasters chose to place the photographs on the website. The research cannot determine the goals, the editorial reasons nor the aesthetic possibilities as to why the photographs were placed on the website. Another limit to this study is that the only analyzed images were those found on the front page. Because of the enormity and complexity of college and university web pages, it was not feasible for the researcher to analyze each page of the site. Other pages of the website might yield different results; however, the front page is the only page where all users who log onto the site will have the same images. Colleges and universities may regularly change their front page; therefore, this study is a snapshot in time, revealing results that are only valid for the time the image was captured.

CHAPTER 3

RESULTS

Introduction

This chapter discusses the results of the data analyses of the 1,677 images of human beings that were published on the 412 college and university front pages of the sample.

Hypothesis one stated that images of men would be depicted more frequently on college and university front pages than images of women. Hypothesis one was not supported, as shown in Table 1. The results showed that 632 images, or 46.8 percent, of men were depicted in college and university front pages. Conversely, images of women accounted for 719, or 53.2 percent of the published images.

Hypothesis two stated that women would score higher on the body index score than men. This hypothesis was not supported. As shown in Table 1, the results showed that images of men tended to show more of their bodies than images of women. Larger percentages of women were cropped at the head, face, and eye category. Women were cropped at the head, face, and eye category 7.6 percent of the time, while men were cropped in this category 7.5 percent. Images of women were cropped at the head and shoulder category 11.6 percent of the time, while images of men were cropped in this category 8.9 percent. The largest difference between men and women was in the head/shoulders to midline of chest category where images of women were cropped in this region of the body 6.2 percent points more frequently than images of men. Images of women were cropped at the below midline of the chest to slightly above the hips category 25.0 percent of the time whereas images of men were cropped in this category 26.5 percent of the time. The second-largest difference between men and women was in the hips, buttocks, thighs, legs to knees category where images of men were cropped in this region of the body 4.2 percentage points more frequently than images of women. Images of women were cropped 16.9 percent of the time

in the legs below knees, feet, entire body category, whereas images of men were cropped in that category 20.2 percent of the time.

Table 1
Gender and Body Index Scale Percentage and Count Cross-tabulation

	Head, face and eyes	Head and shoulders	Head/shoulders to midline of chest	Below midline of chest to slightly above hips	Hips, buttocks, thighs, legs to knees	Legs below knees, feet, entire body	Total
Female	7.6% (53)	11.6% (81)	28.6% (200)	25.0% (175)	10.3% (72)	16.9% (118)	100.0% (699)
Male	7.5% (44)	8.9% (52)	22.4% (131)	26.5% (155)	14.5% (85)	20.2% (118)	100.0% (585)

Note: N=1,284; Chi-square=13.82; df=5; p<.01

Hypothesis three stated that images of Caucasians would be depicted more frequently on the college and university front pages than any other images of people of other ethnicities.

The ethnicity of some humans depicted on the front pages of the college and university front page could not be determined. Those images that could not be determined were discarded from the analysis. The remaining 76.9 percent, or 1,289 human images, found on the front screens were analyzed.

Hypothesis three was supported, as shown in Table 2. Images of Caucasians comprised 72.5 percent of all the images of ethnicities, followed by images of people of African descent at 17.8 percent. Images of Asians were depicted in 5.4 percent of the photographs. Images of Latino/Latinas comprised only 2.9 percent of the total. Images of Middle Easterners totaled 1.4 percent, while the least-frequently depicted ethnicity was images of Native Americans at 0.1 percent.

Table 2

Ethnicities of Images on Front Screens of Colleges and Universities

	Frequency	Percent
Caucasian	934	72.5
African Descent	229	17.8
Asian	69	5.4
Latino/Latina	38	2.9
Middle Eastern	18	1.4
Native American	1	0.1

Note: N=1,289

Exploratory Research

Exploratory research was conducted to determine how the other independent variables would impact the dependent variables. For example, will the affiliation of the institution affect the setting in which the images in the photographs are depicted? Table 4 shows a significant finding in relation to the affiliation of the colleges and universities and the setting in which the human images are depicted. To summarize the findings in Table 3, images of humans in academic settings are most likely to be found on private for-profit college and university front pages; images of humans in an athletic setting are most likely to be found on a public college and university front page; and images of humans in a social setting are most likely to be found on a private, for-profit front page. For this study, the p-value was set at $p<.01$. This means that for p-values less than .01, there is less than 1 percent chance that the significance of the data happened by chance.

Table 3

College and University Affiliation and Setting Cross-tabulation

	Academic	Athletic	Social
Public	42.9% (145)	18.3% (62)	38.8% (131)
Private for-profit	57.6% (38)	1.5% (1)	40.9% (27)
Private not-for-profit	48.0% (487)	10.5% (64)	39.8 (243)

Note: N=1,015; Chi-square=21.17; df=4; $p<.01$

Another exploratory research question looked into whether the person's ethnicity would influence in which setting the images in the photograph would be depicted. Table 4 shows the ethnicity and setting cross tabulations. The results are significant. Asians are most likely to be depicted in an academic setting, closely followed by Latinos/Latinas and Middle Easterners. People of African Descent were depicted in Academic settings only slightly more than Caucasians, and no Native Americans were depicted in academic settings. In the athletic setting, Middle Easterners were most likely to be depicted (20.0 percent), followed by Caucasians (14.6 percent), and people of African Descent (7.9 percent). Ethnicity was most closely distributed in the social setting. In the social setting category, people of African Descent were most likely to be depicted, followed closely by Caucasians (39.6 percent), Latino/Latina (36.0 percent), and Asians (34.7 percent). Middle Easterners were only depicted in a social setting 20.0 percent of the time. Native Americans were not depicted in the social category.

Table 4
Ethnicity and Setting Percentage and Count Cross-tabulation

	Academic	Athletic	Social
Caucasian	45.8% (345)	14.6% (110)	39.6% (298)
African Descent	49.7% (88)	7.9% (14)	42.4% (75)
Latino/Latina	64.0% (16)		36.0% (9)
Asian	65.3% (32)		34.7% (17)
Middle Eastern	60.0% (6)	20.0% (2)	20.0% (2)
Native American	0	100% (1)	

Note: N=1,015; Chi-square=29.59; df=10; p<.01

Because of the empty cells, the ethnicity variables were collapsed to form three ethnicity groups, Caucasian, African Descent, and Other Ethnicities, which consisted of Latino/Latina, Asian, Middle Eastern, and Native American. Table 5 shows the results of the collapsed ethnic groups and the setting. The results are significant. In the academic setting, Other Ethnicities are most likely to be depicted (63.5 percent). Images of people of African Descent (49.7 percent) and images of Caucasians (45.8 percent) are moderately close in the academic setting. Images of Caucasians (14.6 percent) were more likely to be depicted in an athletic setting than were images

of people of African Descent or Other Ethnicities. Images of people of African Descent were more likely to be depicted in social settings than were the images of Caucasians and images of other Ethnicities.

Table 5
Collapsed Ethnic Groups and Setting Percentage and Count Cross-tabulation

	Academic	Athletic	Social
Caucasian	45.8% (345)	14.6% (110)	39.6% (298)
African Descent	49.7% (88)	7.9% (14)	42.4% (75)
Other Ethnicities	63.5% (487)	3.5% (3)	32.9% (28)

N=1,015; Chi-square=17.55; df=4; p<.01

Another exploratory research question examined if the region of the United States where the college or university is located would affect the setting in which the images of the humans in the photographs would appear. The difference is significant. Table 6 shows the breakdown between region and setting. The region of the United States most likely to depict humans in an academic setting is the Rocky Mountains region (92.3 percent) followed by the Plains (51.4 percent). The region of the United States most likely to depict humans in an athletic situation is the Southwest (33.8 percent) followed by the Plains (21.2 percent). The region of the United States most likely to depict humans in a social setting is the Mideast region (52.7 percent) followed by the Southwest Region (49.4 percent).

Table 6
Region and Setting Cross-tabulation

	Academic	Athletic	Social
New England	47.3% (26)	18.2% (10)	34.5% (19)
Mideast	38.7% (72)	8.6% (16)	52.7 (98)
Great Lakes	43.7% (52)	15.1% (18)	41.2% (49)
Plains	51.4% (75)	21.2% (31)	27.4% (40)
Southeast	46.6% (110)	7.6% (18)	45.8% (108)
Southwest	16.9% (13)	33.8% (26)	49.4% (38)
Rocky Mountains	92.3% (12)		7.7% (1)
Far West	69.4% (127)	4.4% (8)	26.2% (48)

N=1,015; Chi-square=129.15; df=14; p<.001

Another exploratory research question examined if the gender of the human in the photograph would affect the setting in which the images would appear. The results were not

significant. Table 7 shows the breakdown of gender and setting percentages. In an academic setting, males and females were almost equally represented, with females accounting for 48.3 percent of the images and males comprising 47.7 percent of the images. The largest percentage difference between males and females, 5.2 percent, occurred in the athletic setting where females accounted for 0.1 percent of the images whereas males accounted for 15.3 percent of the images. Another moderate difference in the percentages occurred in the social setting where females accounted for 41.7 percent of the images while males accounted for 37.0 percent.

Table 7
Gender and Setting Percentage and Count Cross-tabulation

	Academic	Athletic	Social
Female	48.3% (263)	10.1% (55)	41.7% (227)
Male	47.7% (224)	15.3% (72)	37.0% (174)

N=1,015; Chi-square=6.9; df=2; p=.032

Ethnicity and Body Index score was also analyzed by exploratory research and found not to be significant. Table 8 shows the breakdown of ethnicities and the body index score. In the head/face/eyes category, Middle Easterners (27.8 percent) were more frequently depicted than other ethnicities, followed by Latino/Latina, which accounted for 10.5 percent of the depictions. People of African descent (8.8 percent) and Caucasians (7.1 percent) had similar depictions. Asians accounted for only 2.9 percent of the depictions in this category.

In the head and shoulders category, Asians (17.4 percent) represented the highest percentage of depictions, followed by Middle Easterners (11.1 percent), people of African descent (11.4 percent), Latino/Latina (10.5 percent), and Caucasians (9.6 percent).

In the head/shoulders to midline of chest category, Latino/Latina was the most common ethnicity accounting for 39.5 percent of the images. Asians (29.0 percent), people of African descent (28.5 percent), and Middle Easterners (22.2 percent) while Caucasians (24.4 percent) accounted for the smallest percentage in this category.

In the below midline of the chest to slightly above the hips category, Native Americans were represented 100 percent of the time, followed by Asians (29.0), Latino/Latina (26.3

percent), Caucasian (25.7 percent), and people of African descent (25.4 percent) followed by Middle Easterners. This is the only category where Native Americans appeared.

In the hips, buttocks, thighs, legs to knees category, people of African descent (13.2 percent) were the most frequently depicted, followed by Caucasians (12.7 percent), Asians (10.1 percent), Middle Easterners (5.6 percent), and Latino/Latina (2.6 percent).

In the legs below knees, feet, entire body category, Middle Easterners (22.2 percent) were the most frequently depicted, followed by Caucasians (20.5 percent), people of African descent (12.7 percent), Asians (11.6 percent), and Latino/Latina (10.5 percent).

Table 8
Ethnicity and Body Index Score Percentage and Count Cross-tabulations

	Head, face and eyes	Head and shoulders	Head/shoulders to midline of chest	Below midline of chest to slightly above hips	Hips, buttocks, thighs, legs to knees	Legs below knees, feet, entire body
Caucasian	7.1% (66)	9.6% (89)	24.4% (227)	25.7% (239)	12.7% (118)	20.5% (191)
African Descent	8.8% (20)	11.4% (26)	28.5% (65)	25.4% (58)	13.2% (30)	12.7% (29)
Latino/Latina	10.5% (4)	10.5% (4)	39.5% (15)	26.3% (10)	2.6% (1)	10.5% (4)
Asian	2.9% (2)	17.4% (12)	29.0% (20)	29.0% (20)	10.1% (7)	11.6% (8)
Middle Eastern	27.8% (5)	11.1% (2)	22.2% (4)	11.1% (2)	5.6% (1)	22.2% (4)
Native American				100% (1)		

N=1,284; Chi-square=39.69; df=25;p=.031

Because of the empty cells, the ethnicity variables were collapsed to form three ethnicity groups, Caucasian, African Descent, and Other Ethnicities, which consisted of Latino/Latina, Asian, Middle Eastern, and Native American, as depicted in Table 9. In the head/ face and eyes category, people of African decent (8.8 percent) were depicted most frequently followed closely by Other Ethnicities (8.7 percent) and Caucasians (7.1 percent). In the head and shoulders

category, Other Ethnicities (14.3 percent) were depicted most frequently followed by people of African descent (11.4 percent) and Caucasians (9.6 percent). In the head/shoulders to midline of chest category, Other Ethnicities (31.0 percent) were more likely to be depicted, followed closely by people of African descent (28.5 percent) and Caucasians (24.4 percent). In the below midline of chest to slightly above hips category, Other Ethnicities (26.2 percent) were again more frequently depicted followed by Caucasians (25.7 percent) and people of African descent (25.4 percent) In the hips, buttocks, thighs, and legs to knees category, the three collapsed ethnicity groups (12.7 percent) had the same percentage of depictions. In the legs below knees, feet, and entire body category, Caucasians (20.5 percent) were depicted most frequently followed by people of African descent and Other Ethnicities at 12.7 percent each.

Table 9

Collapsed Ethnic Groups by Body Index Score Percentage and Count Cross-tabulations

	Head, face and eyes	Head and shoulders	Head/shoulders to midline of chest	Below midline of chest to slightly above hips	Hips, buttocks, thighs, legs to knees	Legs below knees, feet, entire body
Caucasian	7.1% (66)	9.6% (89)	24.4% (227)	25.7% (239)	12.7% (191)	20.5% (191)
African Descent	8.8% (20)	11.4% (26)	28.5% (65)	25.4% (58)	12.7% (29)	12.7% (29)
Other Ethnicities	8.7% (11)	14.3% (133)	31.0% (39)	26.2% (33)	12.7% (16)	12.7 (16)

N=1,284; Chi-square=17.8; df=10;p=.058

CHAPTER 4

DISCUSSION

Introduction

The purpose of this chapter is to discuss the major findings, present conclusions about the data from the images of gender and ethnicity published on college and university front pages, and discuss recommendations.

Survey of Major Findings

Research questions were posed to guide this study, and the data gathered from this sample attempts to answer those questions. Generally, men and women were depicted differently on the photographs found on the websites of colleges and universities. The data of this study show that women were depicted more frequently than men and were less likely than men to be depicted stereotypically, based on the face-ism theory. The data also show that people of different ethnicity are depicted differently on the college and university websites. For example, the data show that Caucasians are more likely to be depicted on the website than other ethnicities.

From this study, it seems that colleges and universities are attempting to depict images of gender and ethnicity more fairly than other media have done. The data show that colleges and universities have made an effort to include women and people of ethnicity on their front pages; however, they could still improve their frequencies of depictions of some ethnic groups.

Hypothesis one stated that images of men would be depicted more frequently on college and university front pages than images of women. This study did not confirm this hypothesis. In fact, images of women appeared on the front pages 53.2 percent of the time whereas images of men appeared 46.8 percent of the time. Women appeared 6.4 percentage points more frequently than men. Perhaps colleges and universities are making an effort to avoid the male-biased gender

stereotyping that is common in other media. Depicting women on college and university front pages is especially important considering Gerald and Hussar's projections for the National Center for Educational Center indicate that "women's share of college enrollment is projected to be 57 percent by 2012."[110] With the increasing numbers of women enrolling in colleges and universities, perhaps colleges and universities are marketing directly to women by depicting their images on the website.

Hypothesis two stated that images of women would score higher on the body index score than images of men. The face-ism theory asserts that images of women in photographs are cropped to emphasize their bodies; therefore, the photographs depict a larger proportion of women's bodies than men's. This analyzed sample did not support this hypothesis. In fact, images of men were more likely to be cropped to emphasize their bodies rather than their intellect. Images of women were cropped to depict less of their bodies, therefore emphasizing their intellect over the sensuality of their bodies. Perhaps colleges and universities are consciously trying to emphasize intellect over sensuality as a way to market the college as an educational product and thus associating it with the mind, not the sensual aspects of the human form, at least among images of women.

Hypothesis three stated that images of Caucasians would be depicted more frequently on the college and university front pages than images of people of other ethnicities. The research in the sample did support this hypothesis with Caucasians being depicted in 72.5 percent of the images. However, this percentage is slightly lower than the 75.1 percent of Caucasians in the United States in 2001, as reported by the U.S. Census Bureau.[111] The percentage of people of African descent in this study was 17.8 percent, which is a greater percentage than the12.3 percent reported in the United States population. Based on college enrollment figures for 1995[112], people of African descent accounted for 11 percent of the total college enrollment and were slightly overrepresented in the current study. Asians are slightly overrepresented based on the population, as they account for 5.4 percent of the images in this study compared to the 3.6 percent in the U.S.

population. However, Asians are represented accurately in this study, because they account for 6 percent of the total college enrollment. In the U.S. population, Hispanics make up 12.5 percent of the U.S. population, yet, they account for only 2.9 percent of the images on college and university front pages and comprise 8 percent of college enrollment. Similarly, Native Americans are underrepresented in this study as they account for 0.9 percent of the U.S. population and one percent of college enrollment yet they are represented in only 0.1 percent of the images. While colleges and universities are making strides in depicting ethnicities other than Caucasians and people of African descent, they could still tap into a potential market of students from different ethnicities by, perhaps, depicting ethnicities more frequently on their front pages. Perhaps these results show that colleges and universities are making a better attempt at fairly depicting gender and ethnicity than other forms of media. However, colleges and universities must be careful not to exaggerate the depictions of various ethnicities on the front page because they could send false impressions of their diversity enrollment.

Exploratory Research

Exploratory research was conducted to determine how the other independent variables would influence the dependent variables.

The first exploratory research question examined whether the college or university affiliation would affect the setting in which the images in the photograph are depicted. The results of the cross-tabulations indicate that private for-profit colleges and universities most frequently depict humans in an academic setting. For-profit institutions may have a more narrow focus on academics, whereas public and not-for-profit colleges and universities incorporate many other aspects of the college experience into their website, such as sports and social activities. Public colleges and universities depicted more athletic settings than other institutions. Perhaps public colleges and universities have more collegiate sports and intramural activities available to the students than other types of institutions. In the social category, the three types of colleges and

universities were closely divided, perhaps indicating the importance of socializing that is associated with the college experience.

Exploratory research also examined ethnicity and setting. Asians (65.3 percent) were most likely to be depicted in an academic setting than were other ethnicities. This finding is similar to other researchers' conclusions that Asians are more likely to be depicted in specific settings, such as business and academic, than other Ethnicities. The Latino/Latina category (64.0 percent) and Middle Easterners (60.0) closely followed with people of African descent and Caucasians depicted the fewest times. This study shows that colleges and universities depict people of ethnicity in academic settings. One possible conclusion that could be drawn is that colleges and universities are appealing to students living abroad who might travel to the United States to attend college. Perhaps colleges and universities want to appeal to these students' academic motivations for attending college rather than the other possible influences that appeal to American students, such as academic, social and family factors.

In the athletic setting, Native Americans were depicted most frequently. However, this finding is not solid because only one Native American was depicted, and that depiction was in the athletic setting. Middle Easterners (20 percent) were depicted the most frequently, followed by Caucasians (14.6 percent) and people of African descent (7.9 percent). The relatively small number of people of African descent depicted in an athletic setting could represent a movement away from the ideas presented in other earlier research that people of African descent are frequently depicted as athletes. Perhaps colleges and universities are trying to dispel those commonly held stereotypes by depicting other ethnicities and Caucasians in athletic settings. Because of the empty cells in the cross-tabulations, the data was collapsed into three groups, Caucasian, people of African descent and Other Ethnicities. The findings show that Caucasians are more likely to be depicted in an athletic setting that people of African descent or Other Ethnicities. Perhaps this represents a shift in the depictions of ethnicities as athletes. Another conclusion is that colleges and universities might be appealing to the Caucasian's perceived

interest in sports and athletics as an important aspect of college life and thus important in the college selection process. That is not to say that people of African descent, Asians, and Hispanics do not care about sports, but that perhaps colleges and universities perceive that the presence of athletics is an important enrollment decision for Caucasians more so than for other ethnicities.

Similarly, people of African descent (42.4 percent) and Caucasians (39.6 percent) were more likely to be depicted in social settings than Latinos/Latinas (36.0 percent) and Asians (34.7 percent). When the ethnicity categories are collapsed because of empty cells, the data show that people of African descent (42.4 percent) are more likely to be depicted in a social setting than any other category. Caucasians (39.6 percent) and Other Ethnicities (32.9 percent) are depicted in the social category less frequently. Perhaps these results might show that colleges and universities are appealing to ethnicities perceived to be interested in the academic aspect of the college experience, whereas Caucasians and people of African descent may be perceived as more interested in the other aspects, such as socializing and participating in sports or a college experience that encompasses a variety of activities.

Another research question inquired about region and setting. The Rocky Mountain region (92.3 percent) was more likely to depict images in an academic setting than any other region. The Southwest (33.8 percent) region depicted the most images in an athletic setting, and the Mideast (52.7) depicted the most images in a social setting. Perhaps the results of this research question show how colleges and universities are trying to overcome stereotypes related to their geographical location within the United States. Perhaps more research into the perceived stereotypes associated with regions of the United States could possibly explain the results.

Another research question examined gender and setting. In academic settings, images of females (48.3 percent) were slightly more likely to be depicted than images of males (47.7 percent). However, in the social setting, women (41.7 percent) were more likely to be depicted than images of men (37.0 percent). In the athletic setting, men (15.3 percent) were more likely to be depicted than images of women (10.1 percent). This finding shows that colleges and

universities are making an effort to depict women in serious, academic settings, whereas other media tend to depict women in less serious roles. However, colleges and universities also tend to stereotypically depict women in social settings and not athletic settings.

Another research question examined ethnicity and Body Index Score. The findings of this cross-tabulation were not significant, with p=.31. It is important to note that the trend of this cross-tabulation shows that colleges and universities did not tend to depict ethnicities in a stereotypical manner that emphasized their bodies and thus sensuality more than their upper bodies and thus their intellect.

When collapsed for empty cells, findings of this study indicate that Other Ethnicities are more likely to be depicted in photographic images close-up at the head, face, and eyes, head and shoulder, and head/shoulders to midline of chest categories than people of African descent or Caucasians. Caucasians (20.5 percent) are more likely to be depicted in the legs below knees, feet and entire body category than any other ethnicity. These close-up shots show the photographed human's skin and hair color and other features with much more detail than would a shot that included more of their lower body. The viewer of the photograph would be much more able to determine the ethnicity of the person depicted in a close-up shot than a shot that included more of the body. The findings suggest that colleges and universities may publish close-up shots of Other Ethnicities to emphasize that the person in the photograph is of non-Caucasian or African descent. Colleges and universities may be appealing to Other Ethnicities by showing them that their institution offers them the diverse characteristics of a college or university for which they are looking or to show many of their audiences that diversity does exist on their campus.

Recommendations

College and university web masters, web editors, and other communication, marketing, and admissions professionals have the opportunity to help dispel commonly held gender and ethnicity stereotypes by fairly and accurately representing their student enrollment by the images

of humans they chose to publish on their website. They also have an opportunity to market their college or university to a diverse population of potential students in the United States and students living abroad by using their Internet websites. Web editors and photographers should make an effort to capture gender and diversity on campus in natural settings rather than in staged photographs. College and university front pages should also consider whether they are depicting women and people of different ethnicities stereotypically by emphasizing their bodies rather than their intellect. While this study did not find support for the face-ism effect, other samples of front pages or internal pages could.

Who Benefits from This Study

This study adds to the collection of knowledge available to other scholars interested in depictions of gender and ethnicity. Other scholars could use this research as a base for further inquiries in similar subject matter. Additional research could be conducted about colleges' and universities' role in gender and ethnicity depictions and the Internet, perhaps by expanding the present study to examine community college websites. Educators could use this study to teach future public relations practitioners, journalists, photographers, and web editors the importance of gender and ethnicity depictions and how to fairly depict women and people of different ethnicity in various media. This study should also show academic administrators, such as web editors, photographers, and marketing and admission coordinators, the importance of the institution's website and front page and to carefully consider the gender and ethnicity depictions they publish on it. Prospective students can also benefit from this study. By realizing that colleges and universities may emphasize images of diversity and gender, students can make educated enrollment decisions. At the very least, this study should encourage prospective students to research each college or university's actual gender and ethnicity enrollment numbers before making an enrollment decision rather than basing a decision on the images found on the website. Society as a whole could also benefit from this study because gender and ethnicity depictions

affect almost everyone. In general, society should be aware of how media and other sources depict gender and ethnicity because of our society's tendency to generalize and make false assumptions about people based upon their gender and ethnic group. By realizing how gender and ethnicities are depicted presently, society can strive toward changing stereotypes and work to ensure that everyone is treated based upon the merits of their minds and actions rather than their gender or ethnicity.

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