

THE ROLE OF THE INTERNET AS A TOOL TO AID IN U.S. ADULT CONSUMERS'  
WEIGHT LOSS

by

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## ABSTRACT

This thesis focuses on ways the Internet can positively influence and educate U.S. Americans to become healthier and eventually lose weight. Throughout the past 30 years, the percentage of overweight and obese adults in the U.S. has increased immensely, resulting in a nationwide epidemic (American Association for Public Opinion Research, 2006; Center for Disease Control, 2006; Goodman, 2005; The Obesity Society, 2008).

The research question for this thesis is the following: What are the perceptions of U.S. adult consumers regarding the positive influence the Internet has on weight loss? In order to determine the influence of the Internet on U.S. adults, a qualitative method of interviewing was conducted with fifteen U.S. adults.

Upon completion of listening to the audiotapes and transcribing the health narratives, six key themes emerged as the most relevant to the author's research question: (1) Weight Loss Support Rooted in Social Networking, (2) Internet as an Exercise Motivator, (3) Lack of Trust in Internet Sources for Health Information, (4) Meaningfulness of Health Seeking, (5) Internet as a Teaching Tool, and (6) Uses and Gratifications of Online Health Seeking.

Overall, based on this small sample, the researcher concluded that U.S. adults have often turned to the Internet as an aid in their weight loss journey. U.S. adults have a positive perception of the Internet and feel that most adults would benefit from using it to find health information.

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## CHAPTER 1: INTRODUCTION

This thesis focuses on ways the Internet can positively influence and educate U.S. Americans to become healthier and eventually lose weight. Throughout the past 30 years, the percentage of overweight and obese adults in the U.S. has increased immensely, resulting in a nationwide epidemic (American Association for Public Opinion Research, 2006; Center for Disease Control, 2006; Goodman, 2005; The Obesity Society, 2008).

While a vast range of research exists correlating Internet usage of both adults and children with moving less and being less active (Bremer, 2005), the Internet is also an open door to a world full of health information. This is because as an individual becomes more comfortable with a computer and the Internet, it will be easier for them to find websites that are packed with health information (e.g., WebMD.com). These sites are able to educate and teach the user ways to be healthier and can eventually result in the loss of extra pounds. It is supported in a 2005 Pew Internet and American Life Project report, which revealed that those who are most likely to seek out health information online are people with the highest amount of online experience and broadband access. In addition, with all of the tools and applications of the Internet (e.g., calorie calculators, food diaries, forums), people will learn more about the ultimate weight loss ratio of calories consumed versus calories expended.

The research question for this thesis is the following: What are the perceptions of U.S. adult consumers regarding the positive influence the Internet has on weight loss? In order to determine the influence of the Internet on U.S. adults, a qualitative method of interviewing was conducted. Information was gathered from fifteen U.S. adults who provided their personal oral accounts. All interviews lasted 45-60 minutes and were audiotaped on the campus of the



University of Central Florida, in local parks in Central Florida, and in a small pizza restaurant in New Jersey.

This thesis begins with a rationale consisting of three reasons for addressing this topic. Following the rationale is a literature review highlighting the difference between obesity and overweight. Information on obesity in the U.S. for both children and adults is explained in this section. The majority of the thesis then focuses on the ways the Internet provides health education and, therefore, can affect human weight loss in the U.S. This thesis also provides a detailed description of the methods that will be used in this study, an explanation of the ultimate goal of the qualitative researcher *vis-à-vis* this study, and recommendations for future research.

#### Rationale for Conducting this Study

This thesis hypothesizes that the more an individual uses the Internet, the greater success he or she will have in losing weight. This is correlated to the fact that the Internet is a wealth of health-related information and, as people become more familiar with the technology, they will be more likely to have access to these health education sites. For example, a regular Internet user will be savvy about browsing health-related information on the Internet because he or she has ample experience, ease, and exposure using a computer and the Internet. It is the author's goal to present the positive relationship between the Internet and an individual's ability to lose weight. The support for this claim and the main reasons for conducting this analysis follow.

The first reason for carrying out this study is that the Internet has often been portrayed in a negative light. Much of the research that has been conducted on the relationship between the Internet and health has reflected a positive correlation between the Internet and increased obesity rates. As obesity is correlated with consuming too many calories and expending too little (The

Obesity Society, 2008), there has been a vast amount of research conducted to defend the theory that the Internet is partially to blame (Marshall, Biddle, Gorely, Cameron, & Murdey, 2004).

The Internet gives children a way to play in a virtual world instead of riding bikes or being active outside. The Internet even allows people to order Christmas presents online rather than walk around a mall for hours. In the end, no matter what sex, age, or ethnicity, the Internet has been found to aid in a quickly growing sedentary world. For example, one researcher found that a sedentary body using a computer becomes almost paralyzed as the only activities needed are rapid eye movement, hand clicks, and imagination (Cavin, 2006). Not many researchers have yet examined how the Internet can educate and encourage people to become more active and eat healthier. To contradict these findings or to add another perspective, this thesis focuses on a positive aspect of the Internet – highlighting how it can be used to educate and influence people to make the best decisions for their health.

The second reason for writing this thesis is to contribute to the preexisting information on obesity and raise awareness of this severe disease that is affecting our nation. The U.S. is found to have the highest prevalence of obesity among the developed nations (Prevalence of Overweight and Obesity among Adults, 2007). It is estimated that approximately 127 million adults in the U.S. are considered overweight, 60 million are obese, and 9 million are severely obese (Volpe, 2006). According to the Centers for Disease Control and Prevention, the prevalence of obesity among adults has increased from 15 percent in 1976 to 33 percent in 2004, clearly demonstrating why overweight and obesity have become such a large problem. For example, today's generation of U.S. children is the first in the past hundred years who will potentially die at a younger age than their parents (Devi, 2008). A way to prevent this is to help raise awareness. As government agencies bring more attention to obesity, it is suspected that

public education is rising about nutrition and this increase in awareness might be prompting more traffic to websites with health information (Fox, 2005). For reasons such as these, it is necessary to bring this epidemic to the attention of all citizens of the U.S.

The third reason for writing this thesis is that the author feels people need to become aware of the plethora of educational tools available on the Internet that can aid people in weight loss. While the Internet can be a resourceful tool for anyone looking to find health information to better their lifestyle, it is important to note that there is a well documented “digital divide” taking place in connection to the Internet. The digital divide is a term that refers to the gap between those who have access to digital information communications technology and those without (Bellaby, Bell, Lindsay, & Smith, 2007). Studies have been conducted to reveal that those who are older, less educated, and live in remote areas are less likely to have a broadband Internet connection in their homes (Rains, 2009). In addition, it has been found that “inequalities in access to computers, the Internet, and broadband may have particularly important consequences in the context of health communication” (Rains, 2009, p. 285). This is because without computer and Internet access, individuals are unable to take advantage of the health and fitness information available.

As a result of the digital divide and lack of education, many people are unaware of these tools and it is the author’s goal to present the Internet as a useful educational and informational resource (Rhaman, 2008). There are thousands of sites with information on health and wellness, and it is becoming more common for people to attempt to self-diagnose or medicate themselves by utilizing these websites. When a doctor walks into his or her patient’s room and asks “What are you here for today?” the patient is starting to feel more confident, savvy and familiar with medical terms than in the past (Fallows & Fox, 2003). This is because of the help of the top three

health websites: WebMD (12,000,000 monthly visitors), National Institutes of Health (9,000,000 monthly visitors), and Mayo Clinic (5,100,000 monthly visitors). From the U.S. government to hospitals and local nutritionists, there are millions of avenues and sites available to gain beneficial health information from the World Wide Web. With the help of these informational sites, people can become educated in our nationwide battle against overweight and obesity.

## CHAPTER 2: LITERATURE REVIEW

### Obesity vs. Overweight

According to The Obesity Society, obesity is defined as the over accumulation of fatty tissue, which can eventually lead to impaired health. The National Center for Vital Health Statistics (2009) identifies obesity and overweight as the result of an imbalance between food intake and physical activity. The national form of measurement to verify if someone is overweight or obese is the body mass index (BMI). This scale is based on a weight to height ratio and is used by professionals when deliberating if someone is overweight or obese. Overweight is defined as a BMI greater than 25 and less than 30. Any BMI greater than 30 falls into the category of obese (The Obesity Society, 2008). The terms can also be used to identify ranges of weight that have been shown to increase the risk of certain diseases and other health problems such Diabetes, high blood pressure, types of cancer, and sleep disorders (U.S. Department of Health and Human Services, 2007). It was also found that approximately 59 million U.S. adults are classified as being overweight and, therefore, possessing great health risks.

Despite the public's health awareness gains in recent years (Baur, 2004), more U.S. Americans are overweight than ever before (National Center for Vital Health Statistics, 2009). During the years 2006 and 2008, it was reported that more than half of the adults in the U.S. were overweight, and the number of overweight children and teens has doubled in the past decade (Center for Disease Control, 2006; The Obesity Society, 2008). Furthermore, since the mid-seventies, the magnitude of overweight and obese people in the U.S. has drastically

increased (Center for Disease Control, 2006; National Center for Vital Health Statistics, 2009; The Obesity Society, 2008). More than 64 percent of U.S. adults are either overweight or obese. This is a 14 percent increase from the 1988-1994 study and a 36 percent increase from the 1976-1980 study (U.S. Department of Health and Human Services, 2007). The maximum growth occurred in the obese group where the amount doubled from the 1976-1980 National Health and Nutrition Education Survey. Today, as reported in early January of 2009 by the National Center for Vital Health Statistics, the quantity of obese U.S. American adults now outweighs the number of those who are merely overweight. This means that more than 34 percent of U.S. Americans are obese, compared to the 32.7 percent who are overweight. The report proceeded to say that just fewer than six percent of Americans are considered extremely obese (National Center for Vital Health Statistics, 2009).

As obesity trends increase, so does the societal obsession with image and the popularity of “trendy diet programs, weight loss pills, gyms, and every abdominal contraption imaginable” (American Association for Public Opinion Research, 2006, p. 1). It has also been long known that the “media’s constant depiction of ultra thin models and celebrities has lead to increasing levels of body dissatisfaction and eating disorders in young women” (Goodman, 2005, p. 201). Furthermore, as women in Western societies continue to feel tremendous pressure to be thin (Ethier et al., 2008), scholars have found the media’s portrayal of the ideal female body to be increasingly thinner over the past five decades (Goodman, 2005). In 2005, an online survey of 432 U.S. American women revealed the use of fashion and beauty magazines to result in a greater feeling of pressure to be thin, even if they were not overweight (Park, 2005). Park also discovered that when young women are exposed to images of thin women, they feel a greater

sense of pressure to achieve that look. Park's study suggested that the social pressure to be thin is brought on greatly by the mass media industry.

As a result of being dangerously overweight or just striving to achieve a desired look, people are constantly turning to new innovations for help (e.g., iPods, pedometers, and heart rate monitors). This has led public health experts to look for ways to improve diet and fitness tools (Park, 2005). One solution is the Internet, which is a technology that can be used to help individuals to become healthier. As the Internet has merged into human lives as a daily tool that most people are unable to live without, this technology is also acting as a medium for weight loss. It has been noted that "rapid increases in access to the Internet and the World Wide Web have made it a viable and logical mode for delivering health interventions" (Buzzell et al., 2002, p. 1255). With the flexibility offered by the Internet, users are able to receive health information and feedback at home, on the road, or while at work.

### Online Advertising

Online advertising is a form of promotion that uses the Internet for the expressed purpose of delivering marketing messages to attract customers (Burns & Lutz, 2008). Many health, dieting and fitness companies use this method to market and recruit new consumers. Examples of online advertising include contextual ads on search engine results pages, banner ads, rich media ads, social network advertising, online classified advertising, and email marketing. Online advertising has been present for more than ten years, making its debut in 1994 on HotWired (Hollis, 2005). When the first static banner ad was born, it asked the simple question "Have you ever clicked your mouse right here?" and an arrow pointed toward a button that said "You will." This primitive online ad took users to AT&T's website, driving vast volume to its site in a small

window of time. As a result, HotWired served as a leader in online advertising for several years (Hollis, 2005).

The following year gave way to the emergence and public acceptance of the Internet as an interactive medium. In late 1996, Hewlett Packard and Red Sky Interactive introduced a significant innovation to online advertising: a game embedded within a banner ad that let users play the videogame classic Pong (Gluck & Bruner, 2005). As a result, the buzzword “rich media” was coined. This term applies to any ads served in Flash or other advanced interactive formats that allow for animation. At first, rich media ads were mainly used as experiments because creating them required special programming skills and their formats lacked common industry standards (Gluck & Bruner, 2005).

Along with the interactive features came a range of metrics beyond the one dimensional click-through rate which allowed advertisers to track the time people spend interacting with an ad, how long the ad displayed on the page, various levels of user engagement and more. As Kaye and Medoff (2001) put it,

the growth of Internet advertising since its 1994 birth has been truly phenomenal. What started out with banners as bland and common as roadside billboards has exploded into a rich-media interactive environment that may soon rival the rabbit hole in Alice in Wonderland (p. 28).

Today, thanks to broadband connections, online advertising is a world of rich media. Banner ads pop up into their own windows, advertisements become visible on screens before the page has even loaded, and other images are beginning to resemble television commercials.

According to the Interactive Advertising Bureau (IAB), advertisers in the U.S. spent one billion dollars on rich media ads in 2003, an increase from \$800 million in 2002. In both of those



years, rich media accounted for 11 percent of all online marketing expenditures including search ads, classifieds, email, and more. In the second quarter of 2004, online ad sales reached \$2.37 billion, up 42.7 percent from the previous year in the same quarter (Olsen, 2004). Currently, mainstream advertisers, who support the \$60 billion television advertising industry, are starting to pay more attention to online advertising. This is because new features in online ads such as sound, video, animation, interactivity, product demos, and games demonstrate how this medium has elevated into a creative vehicle capable of brand impact.

Rich media advertising has become particularly popular with Fortune 500 firms because of its advanced creative possibilities and its effectiveness at improving brand and direct response performance. It has been found that many industries are now allocating a quarter to half of all web display ad impressions to rich media (Gluck & Bruner, 2005). Automotive and telecommunications companies are devoting over half of their online impressions to rich media. Entertainment companies also dedicate nearly half of their web ad impressions to rich media, and consumer product goods firms are trailing just behind with 39 percent (Gluck & Bruner, 2005).

There are numerous forms of advertising that can be utilized on the web including the most common: the banner ad. Banners are found on all types of websites, in all shapes and sizes, and have a high click-through rate level (The Center for Interactive Advertising, 2004). Another popular form of online advertising is the pop-up, or an advertisement that pops-up on users' screens unexpectedly. In March 2004, a survey was published that found 70 percent of people reported feeling there were too many advertisements, 58 percent said closing the ads was a problem and 56 percent were frustrated that the ads blocked content (The Center for Interactive Advertising, 2004). The most talked about area of online advertising is, by far, email advertising (The Center for Interactive Advertising, 2004). Email campaigns are used to send out promotions

to a highly targeted list of consumers. This strategy is more efficient than waiting for potential customers to stumble upon their web page or one of their banner ads. Companies such as Weight Watchers send out emails promoting their services and educating readers on new recipes, diet trends, or exercise ideas. In addition, *Shape* magazine sends out a weekly email with an advertisement showcasing a “recipe of the week,” and a call to action for recipients to purchase a subscription to their monthly magazine.

Other popular areas of online advertising include paid search, referred to as pay-per-click (PPC). PPC is an Internet advertising model where advertisers only pay if a user actually clicks on an advertisement to visit their website. It is used most with search engines (e.g., Google, Yahoo, etc.) and advertisers bid on keywords or phrases related to their target market. For example, when a consumer types a keyword into a search engine that matches an advertiser’s keyword list, the advertisement appears next to or above the normal search results in an area called sponsored links. The advertiser then only has to pay the search engine for their ad depending on how many times it is clicked (Palser, 2001).

A second option of key word searches for businesses looking to advertise online is search engine optimization (SEO). As an Internet marketing strategy, SEO involves what people search for and how search engines work. To optimize a website, content managers edit the copy to increase its relevance to specific keywords, helping the site to rank higher in search engines and get more traffic (Maki, 2007). In 2002, keyword-based text ads started to appear along the right column of search results and for many websites, high traffic equated to high revenue and lots of business. For example, a weight loss and diet center in Central Florida might bid on the words “weight loss” and “Orlando, Florida.” Then, when someone typed into a search engine such as Google “weight loss, Orlando Florida,” the company’s website would be sure to rank at the top.

As a result, it is hoped that the consumer clicks on their ad and visits their website and eventually becomes a client.

In the end, the popularity of the Internet is booming. New York based eMarketer indicated Internet penetration will overtake cable TV market numbers in 2004 and that the online ad sector is ready to flourish (Hines, 2004). The main reasons for its amazing growth and use are that (1) the advertiser can reach the largest percentage of the U.S. public (2) it is 100 percent trackable (3) it is interactive; people are more likely to share their experiences with a company's product because sharing via social networking sites (e.g., Facebook) is popular, and (4) it is cheaper than traditional forms of mass media advertising.

### Online Diet Advertising

In December 2006, Fox News released its top ten list of "Best Blogs: Health Web sites worth a click" which included "Hungry Girl" and "The Adventures of Diet Girl" (Alvarez, 2006). Therefore, these sites need to be discussed. The site [www.hungrygirl.com](http://www.hungrygirl.com) has a slogan stating it offers "diet tips and tricks for hungry chicks." It is devoted to showcasing low calorie products, diet advice, and other forms of information presumably of interest to female dieters. There are a few highlighted topics such as: a "News" section that discusses what is new and hot in the health and diet world, a "Chew the Right Thing" section that outlines the "right" things to eat, and a "Weekly Weigh in" section which gives weekly postings on healthy desserts or substitutes for more decadent treats. For example, a posting from December 11, 2008 outlines a recipe for a sugar free hot chocolate and caramel drink to make instead of purchasing Starbucks' signature hot caramel chocolate and consuming the 520 calories it contains.

The site also has a question and answer section for users to post questions and “The Goddess of Grub” answers the diet and nutrition questions. The site creator, Lisa Lillien, explains that she is not a nutritionist or a doctor and that the website provides tips that are not meant to be a substitute for any professional guidance or counseling. It is interesting that she has no true expert education in this field, which is a topic addressed in the interviews. The site also offers a free daily email subscription service developed by self-named “foodologist” Lisa Lillien offering food advice to women 18 to 54 who are interested in weight loss, eating better and new guilt-free finds. Her stay slim tricks have gradually attracted a loyal audience of more than 400,000 subscribers over the last five years, who receive Hungry Girl’s daily emails about guilt-free eating, and that audience is growing an average of 200 diet conscious ladies each day (Cabot, 2008).

The second site Fox News categorized as a top ten health website worth a click was “The Amazing Adventures of Diet Girl.” Located at [www.dietgirl.org](http://www.dietgirl.org), this site is about Shauna Reid whose adventure began in 2001 when she weighed 351 pounds. Since then, she has blogged about her ups and downs as she fought to lose 175 pounds. Today she continues to write as she is in maintenance and has published a book called “The Amazing Adventures of Dietgirl” to be released in the U.S. on December 28, 2008. Similar to Hungry Girl, the site has resources and a question and answer section for the users. It is unique from Hungry Girl in that this site is Reid’s dieting journey with daily blogs postings mostly food and exercise related entries created to inspire others to follow her steps and become more healthy.

Recently, “heavyweights in the \$60 million weight loss industry such as Jenny Craig, Weight Watchers and NutriSystem are increasingly turning to interactive online advertising techniques” (Lemonnier, 2008, p. 18). Drawing consumers online, these diet businesses are

hoping to capture potential customers as they view commercials, read diet blogs, and download weight loss tools such as recipes, calorie counters, and weight loss articles. Weight Watchers has been a long time market leader in the diet industry and recently has been spending most of its advertising dollars to promote their website. According to Lemonnier (2008), “the site has more than 600,000 paying subscribers representing 10 percent of its estimated \$1.5 billion in revenue for 2007, up 20 percent from last year” (p. 18). Traditionally, the core of the Weight Watchers program has been meetings, but with the growth of social Internet use, its online program is becoming more popular. It has also been suggested that subscribers enjoy not having to attend weekly meeting, a weekly group weigh in, or showing their face to others in the organization.

Social networking has become popular to subscribers on sites like Weight Watchers. Surprisingly, it has only been in the past five years that social networking websites have been become extremely popular (Ibrahim, 2008). An online social network is defined as a virtual group of people actively seeking friendship within an online group. These websites are suitable for anyone looking to meet someone who lives nearby (or faraway) and are created for people who enjoy revealing and sharing their inner selves through written words. Social networking websites give users a new way to portray themselves and make connections with others who browse the site or share similar interests such as Weight Watchers. People tend to join these sites to become virtual friends with people they either already know or want to get to know and to use different messaging tools to communicate and socialize (Ibrahim, 2008).

Weight Watchers’ eTools is their Internet weight loss companion that is available exclusively for Weight Watchers members and claims to provide a connection to expert weight loss advice and helpful tools. Using eTools helps members to track their weight loss progress and stay on plan. The interactive tools analyze eating habits and have the ability to keep track of

points values, monitor daily food intake, and can even save users' favorite foods so they are easy to count and track. A true customized component of the eTools is the ability for users to create healthier versions of their favorite recipes and get the respective points values for the meals via the recipe builder tool. The tools also make it easy for users to look back and see what has worked for them in the past, or plan ahead for future success. Users can also discover new recipes, be inspired by new meal ideas, find strategies for dining out, and receive nutritional information on over 30,000 foods from all types of cuisines ([www.WeightWatchers.com](http://www.WeightWatchers.com)).

With over 60 workout video demonstrations for all fitness levels, fitness recommendations for all types of people, and targeted workouts for specific muscle groups, the Internet component of Weight Watchers provides members with countless resources and learning tools that were unheard of in Weight Watchers' history. It has been advertised that the members who both attend Weight Watchers' meetings and make use of the eTools on average lose over 50 percent more weight than the members who only attend the weekly meetings ([www.WeightWatchers.com](http://www.WeightWatchers.com)).

Weight Watchers has fully embraced the new media trends of the twenty first century as users are able to track their points anywhere at anytime from their mobile phone with Weight Watchers Mobile supported by most Blackberry, Windows Mobile 6 and iPhone devices. They can access their plan information from wherever they are, at a restaurant, the grocery store, or even on vacation. Users can track food and activities and find the best options for what to eat on the go. Everything a user tracks on their mobile device will be instantly reflected on their web account ([www.WeightWatchers.com](http://www.WeightWatchers.com)).

Another Internet-based diet program is *Self Magazine's* online Challenge program. Users sign an online three month pledge that they will commit to achieving one of three goals: to tone

up, run a 5K, or lose twelve pounds. Similar to the Weight Watchers program, but without a cost, users can log in to track their exercise regimen, journal their dietary intake, view exercise videos, blog on message boards with other subscribers, read nutrition related articles, and print tailored recipes. With the use of the interactive capabilities of the Internet, those who pledge also receive personalized workout schedules and diet plans, find support buddies and sign up for weekly newsletters and follow one of the participants through her blog. In addition to driving people to their website, it was stated that shortly after this program launched, there was a substantial increase in newsstand and subscription sales (Kerwin, 2006).

### Effects of Internet Use on Weight Loss

Now that the description of human obesity and overweight in U.S. adults and children has been made clear, the effects of online diet advertising has been addressed, and the rationale for writing this thesis has been explained, it is essential to explain how Internet use can actually promote and educate society to become healthier and, therefore, lose weight. The rest of the thesis will demonstrate ways in which the Internet leads to a healthier society and eventually to weight loss.

### Health Education Online

On a daily basis, about 8 million U.S. adults use the Internet to find information on at least one health topic. This ranks online health searches at the same popularity level as using the Internet to pay bills, read blogs, or use the Internet to find a phone number or address (Fox, 2006). In addition, most of these health seekers report positive effects of their online health investigations. About 31 percent of health seekers said they (or someone they know) was

significantly helped by the health information they found online. As a result of the rise in the Internet population and satisfaction users are getting from it to find health information, people are turning to the Internet first when they have a health question (Fox, 2006). It has been found that the health topics with the most online searching growth have been in health insurance, medicines, fitness, and nutrition (Fox, 2005). This supports the author's claim that, as users become more comfortable with the Internet, they will use it more often for health information and education.

During the past few years, online companies such as iVillage have surfaced aiming to provide women top-notch nutritional information as well as fitness and self esteem coaches to help them get healthy and lose weight (iVillage Brings Together Top Nutrition, 2008). iVillage Inc. is a component of NBC Universal and is the first and largest media company completely dedicated to connecting with women at all stages of their lives. It is ranked as the number one online destination for women with offerings such as a free six week online health challenge that encourages participants to make better diet choices, to exercise more, and to make other behavioral changes that experts advise will have the biggest effect on weight loss and overall health (iVillage Brings Together Top Nutrition, 2008). There are also daily assignments encouraging the participants to reach out to their icommunity for motivation, inspiration, and advice. The term icommunity is used to describe an online group of people who work with each other and act like a typical community, only in the non-traditional sense. Instead, this community is virtual and the Internet is their common meeting place. The site's interactive features include thousands of message boards and a wide variety of social networking tools, providing a forum for members to share ideas, recommendations, and support. This is truly not only a new media



technology to aid in weight loss, but a multi-leveled communication tool allowing women across the world an opportunity to connect and learn from one another.

After researching online, one can find a plethora of other sites that aid in weight loss. Thousands of companies have programs created online to help in the weight loss battle such as: Calorie King, South Beach Diet, Self, My Food Diary, and Women's Fitness. Other, independent individuals have also created blogs that have become increasingly popular, offering support to many dieters such as: 3 Fat Chicks on a Diet, Hungry Girl, and Diet Blog.

### Internet Use and Physicians

Among the many applications of the Internet in the field of healthcare, the attention in website marketing as a tool to improve the patient-physician relationship is particularly strong. Now, with the interactive capabilities and technology of the Internet, physicians are able to enhance their relationships with their patients in ways they never before thought possible. Some of the main topics affected by this advancement are health education and learning, patient-physician relationship, and medical marketing (Kwon & Xie, 2003).

According to a study by Kwon and Xie (2003), physicians rank finding medical information as the biggest use of the Internet, followed by communication with patients which has led to higher patient satisfaction standards. The Internet has started to affect the patient-physician relationship, enabling the widespread availability of inexpensive information sources and the emphasis on sharing and creating empowered and informed patients. It also can pave the way for an enhanced, more informative, and more satisfying relationship between physicians and patients. The Internet has also placed more choice in the patients' hands as some doctors choose to prescribe directly to online pharmacy sites preferred by the consumer. Another result of the

empowered and informed patient is a lessened need for face time with the physician, as the Internet gives physicians the chance to share valuable information with the patient that would have potential to improve the quality of care for the person.

The 2003 study by Whan and Xie also revealed that patient satisfaction was one of the key benefits of Internet use for physicians. Time management and practice marketing (i.e., advertising of a particular medical group) are the other two items that reached the top of the benefits list. In the past, practice marketing included having the practice name listed in the yellow pages, but in today's world, websites are created to advertise the practice, highlight specialties, distribute patient education, and provide key practice information. In the end, physicians are using the Internet to gather medical knowledge and they are starting to embrace the online tools to enhance their patient care.

Overall, providing consumer friendly health information via the Internet makes it more accessible to patients, allows for key information tailoring for specific audience groups (e.g., SEO), and allows people to be anonymous when needing information on embarrassing or sensitive topics. As Erdem (2007) states it, "it is hard to deny the notion that the Internet has been very efficient in distributing health information to millions of individuals and has become one of the best marketing tools in healthcare" (p. 35). The Internet has significantly developed the circulation of medical information to healthcare customers and patients, and considerably enhanced health education and the learning process. In addition, the use of the Internet has strengthened the physician-patient relationship with the availability of information sources. Finally, the Internet has surfaced as a new option for conventional marketing, paving the way for a new age of medical and healthcare marketing (Erdem, 2007).

## Online Health Seeking

More than ever, consumers are spending a significant amount of time on the Internet. In 2006, consumers reported spending more time on the Internet than watching television (Fox, 2005). According to the Pew Internet and American Life Project, over three quarters of U.S. adults are online (2008). As Internet access and faster connectivity increases, U.S. Americans are increasingly turning to Internet sources for health information. It is estimated that 65 percent of U.S. Americans have accessed health information online in 2004 (Department of Health and Human Services, 2005). In addition, the first quarter of 2007 displayed a 12 percent growth in the online health information sector as compared to the first quarter of 2006 (Lipsman, 2007). The same study revealed consumer online health information usage to have reached an average of 55.3 million visitors per month in the first quarter of 2007, accounting for approximately a third of all Internet users in the U.S. WebMD.com was the site most frequently visited with an average of 17.1 million unique visitors during each month of the first quarter of 2007. This number was a 25 percent increase over the same time span in 2006. Other common health-focused websites such as the National Institutes of Health trailed just behind WebMD with an average of 9.8 million unique visitors per month for the first quarter of 2007, an 8 percent increase over its volumes during the first quarter of the year prior (Lipsman, 2007).

As explained by Erdem (2007), a typical Internet health information seeker is younger, more educated, and more affluent than the general population. Eighty-two percent of these people are in the 18 to 29 age bracket, 84 percent have postgraduate education, and 77 percent have household incomes greater than \$75,000. According to the Pew Internet and American Life Project report from 2006, 80 percent of American Internet users (about 113 million adults) have used the Internet to search for health information. This report referred to these individuals as

health seekers and found the demographics on someone in this category to be a woman, younger than 56, with a college degree, and with more than six years of online experience and broadband access at home. This study also revealed that out of the 216 million adults using the Internet, 44 percent have used it to find information on exercise or fitness and 49 percent have used it to find information on diet, nutrition, vitamins, or nutritional supplements. In 2004, it was found that 59 percent of female Internet users had searched online for diet information (e.g., searches relevant to losing weight, healthy food choices), a significant increase from the 48 percent who did so in 2002. It is interesting to compare this to the 2004 results which showed 43 percent of men conducting an online diet related search (Fox, 2005). In addition, it was found that a much higher amount of Internet users go online to find information on exercise and fitness than two years before. Forty-two percent of all Internet users were found to have completed this type of search in 2004, compared to 36 percent of Internet users in 2002. The age group with the largest increase in using the Internet to learn about fitness and exercise information has been those 50-64 years old (Fox, 2005).

A 2006 Harris Poll survey showed consumers going online to look for health information five times a month, searching mainly through portals or search engines, rather than frequenting particular sites (Erdem, 2007). It has also been found that most people are using the Internet not only to better educate themselves, but also to improve the quality of their conversations with their physician at appointments (Erdem, 2007).

One year later, another Harris Poll study was conducted, this time coining the term “cyberchondriacs,” as adults who have ever gone online for health information. The results of their study revealed that there are an estimated 160 million cyberchondriacs in the U.S. Comparatively, in 2006 there were an estimated 136 million cyberchondriacs and in 2005 there

were an estimated 117 million, showing a 37 percent increase during two years (The Harris Poll, 2007). “Cyberchondriacs now represent 84 percent of all online adults, up from last year’s 80 percent, and 72 percent in 2005. As in the past a large majority of cyberchondriacs (88 percent) continues to report that they were successful in searching for health information online” (The Harris Poll, 2007, p. 1). One explanation for this increase was that it was a result of the rise in Internet users as well as the rise in the percentage of people online who have looked for information.

As Bernhardt, Della, Edgerton, Eroglu, and Nall (2008) found, “the surge in online health information queries and usage is matched by the growth of options among online information sources” (p. 152). For example, MedicineNet.com now offers 36 general health and medical rich site summary (RSS) feed channels and over 1,000 specialty health and medical feed channels. RSS stands for “real simple syndication” and these feeds are an innovative and simple way to distribute website content via the Internet to users who subscribe to the website’s feeds (King, 2003). The works of this technology can be compared to email because the RSS reader performs tasks similar to an inbox for RSS feeds. Users who subscribe to these feeds enjoy not needing to check numerous websites for updates, instead, the new information is located in one convenient place (King, 2003). It has also been noted that personal health experiences recorded on blogs are also popular despite the fact that their authors may lack credible medical authority (Bernhardt et al., 2008).

Not only is the variety of health information expanding on the Internet, but this type of digital health information is also going mobile. For example, Apple.com’s iTunes provides free podcast sessions from numerous health information sources, including the Centers for Disease Control and Prevention, the Mayo Clinic, Harvard’s School of Medicine, the World Health

Organization, the Public Broadcasting Service, and the Johns Hopkins Bloomberg School of Medicine. In addition, many of these large health institutions are also offering podcasts and RSS feeds to users directly from their websites.

The Centers for Disease Control and Prevention (CDC) has a mission to protect and promote the health of all U.S. Americans. In striving to obtain this mission, they are using new and emerging communication channels to reach the public. Some of their ongoing activities include the creation and evaluation of podcasts, electronic greeting cards, blogs, interactive games, and webinars. They have created over 250 different podcasts and have translated some to Spanish. Clearly, these items are popular because as of February 2007, they had been downloaded 180,000 times fulfilling a niche demand for mobile audio public health information (Bernhardt et al., 2008).

Overall, it is apparent that persistent connectivity to digital information is shaping the way in which health information is constructed, shared, and circulated, as well as the way in which health information is sought, obtained, and utilized with the Internet being a key component. As of 2007, there were over 100,000 health-related websites and this number is climbing daily (Erdem, 2007). It has been demonstrated that the Internet is a powerful tool for distributing health information to millions of U.S. Americans as those with access can review the 100,000 plus health-related websites, government health sites, journals, medical texts, online medical libraries, and even drug reference books. With all of these outlets of information, it is no surprise that in 2002 it was reported that 57 percent of those who searched online for health information in the past year consulted the Internet first (Erdem, 2007).

As of 2003, about six million U.S. Americans were going online for medical advice on a typical day (Sternberg, 2003). Three years later, it was reported that about 113 million U.S.

adults were searching the Internet on a daily basis for health information (Fox, 2005). According to the American Medical Association, more people go online for medical advice on any given day than actually visit health professionals and now, seeking healthcare information online has surpassed the popularity of online sports, stocks and shopping (Wilkins & Nacarro, 2001). In general, 70 percent of those going to health sites are seeking information for a child, parent, or loved one, while 43 percent of online health seekers are looking for information about themselves (Fox, 2000). Overall, about eight out of ten people have looked for health information online with interest in diet, fitness, drugs, health insurance, experimental treatments, and particular physicians or hospitals appear to top the list (Fox, 2008B). Other key searches have included those for specific diseases or medical problems and particular information on Medicare or Medicaid information.

### Online Dietary Tracking

Dietary self-monitoring has been one of the most popular features on the diet-conscious sites, most likely because it has often been referred to as the cornerstone of all behavioral weight control programs and is essential for victorious weight loss (Gold, Harvey-Berino, Howard, Johnson, and Yon, 2007). Dietary tracking includes monitoring one's daily caloric intake and expenditure via paper and pen journal, or with the use of online vehicles and electronic diaries. Some of the newer electronic diaries have even become user friendly for cell phones or personal digital assistants. In today's society, over 82 percent of the population has at least one cell phone (Blumberg & Luke, 2008). The use of a personal digital assistant (PDA) has become more common as well. A PDA is a portable computing device that transmits data and is capable of paging, data messaging, e-mailing, computing, faxes, date books and other management

capabilities (ewisdom.com, 2007). Essentially, the uses of a cell phone and handheld laptop have merged into one technology, allowing users to have all the information of the Internet in the palm of their hand.

As the PDA has recently become more popular, numerous types of software have been created for the organization. One program designed particularly for fitness enthusiasts, athletes, and personal trainers is called PDABs. This software claims it is the only way people can throw out notebooks and pencils in order to track fitness routines on a Palm OS handheld (PDABs5.0, 2007). This software allows the user to save all of their workout information onto a PDA, which then synchronizes to a desktop computer, allowing them to never lose their workout information.

In 2007, one study worked to investigate if the use of a PDA would increase the frequency of one's dietary self-monitoring (and therefore weight loss) as compared to the use of traditional paper diaries. The team of researchers provided 176 adults with a PalmZire 21 installed with Calorie King's Diet Diary software and monitored the subjects for six months; their results were compared to another group of subjects who used paper diaries for self monitoring. In the end, the weight loss results were similar for both groups, but the PalmZire 21 group was found to self-monitor and input their dietary intake more often than the traditional group. Often, this type of frequent dietary monitoring leads to greater advancements in weight loss (Gold et al., 2007).

Other technology devices that are made to support weight loss and help with the dietary tracking of caloric expenditure include accelerometers, pedometers, and heart rate monitors. Accelerometers are used to track a person's speed and rate of speed change as they walk or run (Evenson, Rogers, Troiano, Vaughn, & Ward, 2005). Technically, an accelerometer is a sensor that can detect movement and direction changes and is the key to helping the screen move on an



iTouch or iPod as the user tilts it horizontally or vertically (Jakicic, Winters, Lagally, Ho, Robertson, & Wing, 1999). Recently, Nike and Apple teamed up to create the Nike+iPod Sport Kit. This device measures and records the distance and pace of a walk or run via the use of a small accelerometer that can either be attached or implanted in the users' shoe (Nike+iPod, 2009). This piece then sends messaging to the Nike+ Sportband that is plugged into an iPod Nano or an iPod Touch. The kit's capabilities include storing information such as the overall time of a workout, the distance covered, pace, or calories burned by the person wearing the shoes (Nike+iPod, 2009). All of this is displayed on the screen of the iPod or is occasionally broadcasted through the headphones. After a workout, the Nike+ Sportband can be plugged into a USB port of a computer and the software will upload the workout information directly to the Nike+ website. In addition, the iTunes software can be used to view the walk or run history (Nike+iPod, 2009).

Pedometers are worn close to the waistline and are small instruments that measure the number of steps and distance a person has walked. Pedometer based walking programs have been found to help decrease waist girth and resting heart rate among sedentary adults (Bengoechea, Berry, Fraser, & Spence, 2006). It has been argued that pedometers and accelerators motivate people to be more physically active because they provide immediate and visual feedback (Cipriani, Dinger, Heesch, & Qualls, 2007). In a study comparing the effectiveness of two email-based walking programs using pedometers, it was found that logging daily steps into an online database allowed participants to illustrate their success. As a result, each day the amount of steps taken increased from the day prior and as the days went on the users felt a heightened degree of gratitude (Cipriani et al., 2007).

Pedometers, accelerometers, and heart rate monitors all help with caloric expenditure and dietary tracking. By monitoring a heart rate, or the distance a person walked or ran, consumers are able to calculate their caloric burn. When keeping track of these numbers, people can understand the amount of food they are consuming and how much energy they should be burning. With the help of online dietary tracking systems found on sites such as Self.com, Shape.com, About.com and MyFoodDiary.com, people are able to get the most accurate tracking of their health. Combined, these tools aid in weight loss and the Internet is the integral tool for people to track and view their progress. Some sites even provide visuals such as charts and graphs to show the user how they are progressing.

Another example of a dietary monitoring program is the Welnia Web Based Lifestyle Monitoring System that is unique from most other web based programs by including a personalized meal plan. A balanced diet with essential nutrients, a resource guide, comprehensive food diary, and online education courses are all supporting components of this program (Florida Hospital Healthsleeve, 2007). As participants use the food diary to enter their daily caloric intake, it directly corresponds with the number of calories burnt throughout the day, as well as the user's nutritional needs such as fiber, saturated fat, sodium, and folic acid intake. Furthermore, the progress reports are available to not only the user, but the wellness counselors and coaches (Florida Hospital Healthsleeve, 2007). If the user ever has concerns with their product or program, they are able to call counselors and coaches who are immediately able to log in and view the client's data. As a helpful tool for physicians users are able to log online, print their reports, and bring them to their doctors' appointments to show their progress, comment, or ask questions (Florida Hospital Healthsleeve, 2007). This is also an example of a step in the direction of electronic personal health records, which is emerging as a new wave in the field of

healthcare communications.

Interactive tools that provide easy counting and tracking of calorie intake and expenditure is a hot feature on many of these sites. For example, My Food Diary is a site solely dedicated to providing users with a technically advanced method to track dietary intake, instead of using the old fashioned pen and paper method.

### Internet Support for Weight Loss

According to a 2006 Pew and American Life Internet Project report, the two main ways Internet users support each other online is through virtual communities and personal emails. This report also found 46 percent of Internet users to have visited a website which offered information and support for people with a specific medical condition or personal situation. Just one year later in 2002, that number increased to 47 percent of Internet users and by December of 2002, 54 percent of Internet users (about 63 million Americans) used the Internet for online health support (Fallows & Fox, 2003).

The website Facebook is an example of a social networking site that was targeted to college students but has since become open to anyone with an email address. As a result, it has become increasingly popular with people aged 25-34 and 35-44 (Emmett, 2009). In fact, the 35-54 year old segment grew 173 percent in 10 months while the 25-34 age group grew at a rate of just over 97 percent.

Based on a Steelcase survey, people who responded to why they use social networking sites 82 percent said it was to reconnect with family or friends with MySpace being the most popular at 66 percent and Facebook following at 46 percent (Anderberg, 2008).

Nielsen/NetRatings proposes that social networking is not just a fad and will increasingly

become an activity that will be imbedded into mainstream websites (Ibrahim, 2008). It has also been estimated that traditional forms of interpersonal communication are being taken over by electronic forms of communication.

Some examples of these support groups might have names such as: “Women in their 20s looking to lose college weight,” “Old athletes trying to retrain,” “Pregnant and hoping to be healthy,” or “Recently diagnosed with Diabetes.” The usefulness and popularity of these groups have caused a few themes to emerge. As Fallows and Fox (2003) said, “on the emotional side, empathy is highly valued and receiving support has been found as crucial as giving it. On the practical side, the support has led to substantial results” (p. 12). An example of this is a study of 92 overweight or obese U.S. adults who received weekly email counseling and lost more weight in a year than adults who took part in an online Internet weight loss program, but did not receive email support (Jackvony, Tate, & Wing, 2003). The adults who communicated through email with weight loss counselors lost 4.8 percent of their original body weight, double the weight loss by the control group.

#### Face-to-Face Counseling vs. Online Counseling for Weight Loss

In 2001, a six-month study was conducted to investigate whether or not participants would lose more weight if they were involved in an Internet behavior therapy program as compared to an Internet education group. These results were then compared to the outcomes of face-to-face counseling to understand which form of weight loss support was best. Generally, the intent of a behavioral therapy program for weight loss is to modify the obese person’s eating and activity levels by self-monitoring their eating habits, stress management, stimulus control, problem solving, contingency management, cognitive restructuring, and social support (Greer,

2005). Combined, these strategies are used by the patient to rise above barriers with diet and activity level. The team hoped to achieve the goals of behavioral therapy via the Internet. In addition, the education group's goal was to change the participant's behaviors by teaching them the reasons why eating better and getting more activity would benefit them. The main difference between the behavioral group and education group is that the first focuses more on emotions and the educational group emphasizes learned facts. At the end of this study, the online behavior therapy group lost more weight (Tate, Winett, & Wing, 2001).

One year later, a related study was conducted to explore the effectiveness of another weight maintenance program conducted over the Internet. This time, 122 subjects were studied during a clinical behavioral weight loss trial. For six months, subjects received in-person behavioral treatment. This was followed by a 12-month maintenance program in which participants were split into three different groups: frequent in-person support, minimal in-person support, or Internet-only support. When the program ended, the Internet-only support group maintained their weight significantly better than the frequent in-person support group during the first six months of weight maintenance (Buzzell et al., 2002).

Two years later, researchers conducted another study to further understand the efficacy of Internet weight maintenance programs. The study's purpose was to examine a fresh approach to maintaining long-term contact with individuals after partaking in a structured behavioral weight loss program (Buzzell, Gold, Harvey-Berino, & Pintauro, 2004). For six months, they studied 255 overweight and obese adults in a behavioral weight control program conducted over an Internet-based interactive television. There were ten interactive television sites and the group therapist broadcasted treatment sessions from one of the sites. There was always a live group of participants and up to four additional groups participating through distant interactive television

sites enabled with a video system and microphones. The participants met via the Internet-based television for one hour each week and they focused on modifying their eating and exercise habits. Upon completion, there was a one year weight maintenance program in which the participants were divided into the three separate groups: frequent in-person support, minimal in-person support and Internet-only support. The frequent in-person support group met at their local studio biweekly for 52 weeks. Subjects turned in food diaries, got weighed, and took part in a therapist lead group discussion. The minimal in-person support group met in this same manner, but for only 26 weeks, the other 26 weeks were conducted via the Internet. The Internet-only support group met once to be trained in the basic procedures for logging into the study website. They had access to electronic self-monitoring forms, dietary analysis, chat rooms and bulletin board functions. The Internet-only support group met online for bi-weekly for Internet chat sessions facilitated by the group therapist.

The team hypothesized that individuals assigned to the Internet-only support group would maintain more weight loss. The results showed that an Internet weight maintenance program could give similar long-term weight loss as compared to a similar program conducted in person and over the phone (Buzzell et al., 2004). In the end, when comparing the results from both studies conducted two years apart, both found the “Internet-only support to be just as effective, if not more, than minimal or frequent in-person support for facilitating the maintenance of long-term weight loss” (Buzzell et al., 2004, p. 328).

One of the reasons people say they enjoy the use of online support communities for their health issues lies in the fact that they can seek information and support at any time of day, are exposed to a wealth of information, and have privacy by joining these groups or asking questions anonymously (Boase, Horrigan, Wellman, & Rainie, 2006). According to the Pew Internet and

American Life Online Life Report (Fallows & Fox, 2003), 80 percent of health seekers say they really enjoy being able to get their health information online while being anonymous and not having to talk to anyone. Often, the issue of losing weight can be embarrassing; some people even gain so much weight they do not want to leave their home or be seen by anyone (Campos, Saguy, Ernsberger, Oliver, & Gaesser, 2006). For these reasons and these types of individuals, having an online support group or nutritional consultant to exchange emails with could really encourage their drive to lose weight and become healthier.

So far, this thesis has demonstrated that the Internet can have a positive effect on the health of U.S. adults. As they become more comfortable with the Internet, they are able to utilize it to better educate themselves on health-related topics. In particular, users can learn ways to become healthier and eventually lose weight. These Internet users are also able to connect to other people through iCommunities and use the Internet to gain support for their health struggles via message boards and emails. When considering the fact that more than half of the U.S. population is overweight and over 66 percent of the population uses the Internet, one would assume the Internet would be a frequently used medium for educating individuals on healthy living and weight loss. It appears that this trend is increasing (Fox, 2008a), and with the rates of overweight and obesity at an all time high (National Center for Vital Health Statistics, 2009), it is clear that U.S. Americans need to start making daily changes rather than blaming the epidemic on one source of technology or another. What comes next is a detailed description of the methods used for conducting this study.

## CHAPTER 3: METHODS

This thesis aims to discover what positive impact the Internet has on U.S. adult obesity. Recall the research question: What are the perceptions of U.S. adult consumers regarding the positive influence the Internet has on weight loss? Most studies on adult obesity have focused on the negative impact(s), why participants gain so much weight, and how television (e.g., commercials) impacts their weight. However, examining the positive impact of the Internet is groundbreaking. The Internet can be an educational tool in helping this obesity issue. In order to gain insight into the potential for determining how positive consumers' perceptions are regarding the influence of the Internet on U.S. adults, a qualitative method of interviewing was conducted.

### Why Qualitative Interviewing?

The method of qualitative interviewing was selected for various reasons. First, few studies have used this method when examining consumers' perceptions of the impact of the Internet on U.S. adult obesity. Second, participants may prefer to share their stories verbally and face-to-face rather than via other methods, especially due to the sensitive subject matter. Third, the method of interviewing allows the researcher to use probes and gather additional information from the participants (information that may not have been taken into consideration when the study was initiated).

The research data were collected via in-depth conversational (face-to-face) interviewing, following the procedures given by Kvale (1996). Kvale (1996) calls for seven stages in the interview process: *thematizing*, *designing*, *interviewing*, *transcribing*, *analyzing*, *verifying*, and *reporting*. Face-to-face interviewing is a methodological approach that uses in-depth analysis of



a particular setting (Lofland & Lofland, 1995). Analyzing qualitative data consists of breaking down a phenomenon to research its components. In doing so, the researcher is able to develop a pattern for the whole by relating categories or themes to one another (Schwandt, 2001). This implies that meaning is inferred from the data collected.

Finally, it might be the case that the participant is not very familiar with current statistics on U.S. obesity and other facts pertaining to this study. Nevertheless, the participant's possible paucity of knowledge can be overcome if the interview protocol (see Appendix A) allows for an initial general discussion that can identify the overall participant's knowledge of the subject. In a similar vein, some time could even be spent creating an informational foundation before the interview continues. With a quantitative instrument such as a survey or questionnaire, it would be more difficult to follow the procedure mentioned here.

The interview protocol was developed directly from the facts and descriptions of the Internet and weight loss outlined in the literature review. From a qualitative interviewing perspective, questions were not closed-ended, but open-ended and broad (e.g., "Please tell me about your weight loss" or "What inspired you to lose weight?"), which means that the questions on the interview protocol of this study could not be answered with just a "yes" or "no" or with a specific piece of information. Rather, the participants' responses tended to be long, in the form of stories or personal accounts, as proposed by famous qualitative researchers Denzin and Lincoln (1998). They wrote that qualitative researchers seek detailed, sometimes long, answers to questions that emphasize how social experience is created and given meaning. The participants here are native informants as they have experienced weight problems themselves. From this vantage point, an emic approach was used. The information they provided was an account of their behavior and actions – the participants themselves – in terms that were meaningful

(consciously or unconsciously) to them. Here, it was not the “outsider” view, but the “insider” view, since the analysis of the data reflected the viewpoint of the native informants (Pike, 1967).

It was planned that by conducting interviews, the participants would reveal their Social Construction of Reality. The fundamental concept of the Social Construction of Reality is that people interact with groups in a social system and over time, the mental representations of each other’s actions, become the habitual roles that people (or “actors”) take on in relation to each other. It has been said that in this process of institutionalization, meaning is embedded in social society (Berger & Luckmann, 1966). Comprehension and people’s personal conception of reality become embedded in the institutional fabric of society and, for these reasons, social reality is considered to be socially constructed (Burr, 1995). Utilizing this theory, I, the researcher, aimed to uncover the participants’ roles and understand how their perceived social reality was constructed in relation to the Internet and weight loss.

### Data Collection

Information was gathered from fifteen U.S. adults who, through one-on-one interviews, provided their personal oral accounts. Each interview lasted approximately 45-60 minutes and was audiotaped in a mixture of places: a park in downtown Orlando near a large hospital, areas on campus at the University of Central Florida, a church basement in New Jersey, and in a local restaurant in New Jersey. The researcher found private outdoor facilities to be the best areas to hold the interviewing as there were less distractions and a smaller chance of a stranger overhearing the oftentimes private or sensitive conversations. The interviews held in New Jersey were not as easy to conduct outside as it was the middle of winter. Therefore, a quiet restaurant and church basement had to suffice.

Three key methods were used to recruit the participants: (1) posting flyers around the main UCF campus, public Orange County libraries, local Panera Bread store bulletin boards, in the bathrooms at a fitness club, on a non-denominational church's bulletin board, and in a small pizza shop in Belmar, New Jersey; (2) placing a small advertisement in Florida Hospital's internal newsletter *The Times* that reaches 16,000 employees; and (3) word-of-mouth techniques such as emailing contacts about the study and asking it to be forwarded on to qualified candidates, and by making announcements at all employee staff meetings at an elementary school in New Jersey to spread the word. To recruit the appropriate participant, screening questions that fit the true purposes of the study were used on the flyers. For instance, they were asked if they were between the ages of 18 and 64, if they had experienced weight problems, (currently or in the past) and if they had ever consulted the Internet as a health or diet information source.

Over a six week period, at least two interviews were conducted per week at various times throughout the day to meet the interviewee's schedule. Originally, it had been preferred for most of the interviews to take place at Wade View Park in Orlando, Florida as it is a public park, in a safe part of town near downtown Orlando which is central to many residents. However, the researcher found it was much more appropriate to accommodate the participant's schedule and travel to wherever they were based. As a result, more interviews took place on the campus of the University of Central Florida than expected.

Almost 30 percent of the participants replied to the ad placed in the Florida Hospital internal newsletter and for these individuals, another park close to the hospital was chosen as the interview site for many of the participants because it is within walking distance from the hospital and still provides the privacy that would not have been obtained in some of the more public areas

of the hospital. It was important to take this into consideration as weight loss is a sensitive subject for many individuals. The park that was chosen did not have a name but was very quiet and the only visitor was the occasional person walking their dog. This was very helpful when audiotaping the interview and listening back to the tapes because there was not too much background noise or distractions.

The interviews held in New Jersey were stationed at the same restaurant where the flyers promoting the interviews had been posted. It was hoped that the restaurant would be a familiar and convenient place for the participants. In addition, the owner agreed for a quiet table in the back of the restaurant to be used for the interviews. Those who were interviewed in the pizza place were shown gratitude by a free slice of pizza and drink coupons that were distributed by the store owner.

The most successful means of recruitment were via the Florida Hospital internal newsletter, the flyers around the University of Central Florida, and the flyers set up in New Jersey at the church and in the restaurant. The researcher was also pleased to see a snowball effect take place as some of the participants provided “leads” to others they knew who would be qualified and most likely willing to participate in the study. At least three individuals in the study were found by another participant referring them to me and providing me with their contact information. In qualitative research, this process is also called “chaining.”

The records of this study have been kept private and all of the participants signed a consent form and used pseudonyms. In published reports, there will be no information included that will make it possible to identify the research participants. Once the interviews of the participants were transcribed, the audio-tapes were destroyed and the remaining research records

will be stored securely. Only approved researchers (i.e., my thesis advisor) will have access to the records.

### Data Reduction

Through the interviews, the researcher was looking to gather health narratives. Health narratives are the stories communicated by people who have been affected by a condition or disease. By nature people are storytellers and communicate in the form of narratives, therefore, we use stories to explain and exemplify our ideas, and to recount and account for our decisions (Geist-Martin, Ray, & Sharf, 2003). To different people, these narratives can be “open-ended resources – sources of healing and comfort, spiritual maturation, privileged moments of self-change, epiphanies, turning points and lessons to live by” (Geist-Martin et al., 2003, p. 7).

Once these health narratives were transcribed, the notes were examined, read carefully, and color-coded for optimal organization. Using critical thinking, the like findings were grouped together to help determine the key themes of the research. In doing this, Kvale’s last three stages of qualitative interviewing were used: *analyzing*, *verifying*, and *reporting*. Analyzing, in particular, was very important in this study. The researcher’s ultimate goal was to look for themes that were consistent among all of the health narratives. I aimed to create a pattern of meanings in the form of categories or themes. Put another way, the richness of the participants’ stories – i.e., the particular elements that were detailed, recorded, and verified – and the patterns of themes that these elements exhibit have enabled me to contribute to a better understanding of U.S. adult obesity, advance the knowledge of it, and further understand the impact of the Internet on health. In qualitative interviewing, “generalizability” means that the findings are constant, dependable, and transferable (Oberle, 2002). Once the interviews were transcribed and coded, a

Microsoft Excel spreadsheet was created dividing the most relevant quotes into separate worksheets based on the themes their quotes matched.

### The Participants

The interviews of fifteen U.S. adults took place between January 12, 2009 and February 18, 2009. It was the researcher's goal to interview equal parts male and female, and at first had eight men and ten women scheduled to interview, but three men had to cancel their scheduled interviews due to last minute circumstances. In the end, there were twice as many females than males who were able to take part in this study, altering the gender numbers to five males and ten females. The age of the participants ranged from 20 to 60; the average age of the participants was 30 when the outliers of 56, 59 and 60 were included. Without those participants included, 24 was the average age of the interviewees. Six of the interviews were of New Jersey residents while the other nine were of Central Florida residents. By incorporating two different regions, the North and the South, the sample became more diverse, which may have helped the study by providing different perspectives and experiences. All of the participants were asked to sign consent forms, as well as come up with pseudonyms in order to preserve their identities. Since the interviews were conducted and the health narratives were transcribed, the tape recordings have been destroyed as promised to the interviewees.

It was a unique experience for me, the researcher, to listen to each of the participants' personal accounts on overweight or obesity. To build rapport with the individuals, I tried to explain to them the reasons I was conducting this study via the phone before the interview time was determined. When we first met face to face, I would again explain my ultimate goal as a researcher and share with them a bit of my own health narrative. As I opened up about my own

experience with using the Internet to gather health information and how the Internet had helped me lose weight in the past, it set the mood to start to share their story with me. I believe that exposing my personal experience to them in the beginning helped build trust and made it easier for them to open up to me about their experiences. It was refreshing listening to their stories about their struggles, weight loss plateaus, and ultimate success. In some circumstances, the participants recalled a moment in their life when they were most successful and it made them realize how far they had come since then and, with certain individuals, that some of their weight loss had crept back. For some of the individuals, I believe the interview was similar to a counseling session, reflecting on the past and realizing that they need to adjust their ways again to bring the key health topics to the forefront of their minds.

I was most touched by the woman who shared with me her battle with losing over 70 pounds – twice! The first time in high school before entering college, and the second time prior to her wedding. It was sad listening to her story. I had hoped to hear that she wanted to lose weight to become a healthier person, as she had been obese, but instead her ultimate reason to lose weight was not for herself but for her family. I did not point out my feelings instead, I just listened to understand the full scope of her story. The time she lost weight in high school was because her mother wanted her to be in shape before she entered college and went through sorority recruitment. Her mother had wanted to be sure she was chosen by a top sorority house! After putting all of that weight back on in college when she was not accepted, the next time she decided to lose weight was prior to her wedding, but the underlying reason for weight loss this time around was an email she found in which her grandmother referred to her as looking fat in a wedding dress. This was extremely touching and sad to me because as this person shared her health narrative, I began to grasp the true amount of weight she had lost and I could not believe

that she never once wanted to lose weight for her own health. I found it difficult in interviews such as this to remain professional as I wanted to reach out and hug the interviewee or go into further detail about their particular circumstances. I did learn to carry a small package of handkerchiefs in my pocket to the interviews just in case someone needed one, and they sure came into use a few times.



## CHAPTER 4: FINDINGS AND ANALYSIS

Upon completion of listening to the audiotapes and transcribing the health narratives into a computer, the accounts were printed and color-coded manually. A Microsoft Excel spreadsheet was created with six worksheets, each reflecting the key data findings pertinent to the central themes that emerged from the interviews. From the data, six key themes came through as the most relevant to the author's research question: (1) Meaningfulness of Health Seeking, (2) Internet as a Dieting Tool, (3) Internet as an Exercise Motivator, (4) Moral Support Provided in Social Networking Sites, (5) Consumers' Lack of Trust in Utilizing the Internet for Health Information, and (6) Uses and Gratifications of Online Health Seeking. There were other topics that the interviewees agreed upon, but it was clear that these six themes were the most prominent.

### Meaningfulness of Health Seeking

The interview process revealed a list of many reasons individuals turn to the Internet to gather health information. Finding meaningful information that positively helped and affected the consumer appeared to be the top answer. Participants talked about having used large search engines such as Msn Health, Yahoo Health, Google, and WebMD as well as smaller websites such as Weight Watchers and the South Beach Diet websites to get their online health information. For instance, one of the participants, Helen, explained that she has,

found information on Diabetes, heart disease, [and] other ailments and afflictions which visit my family and friends...I can learn and understand more about why conditions occur, or find out about treatments, symptoms, and more... For

example, I remember wanting to know about alopecia when my brother kept losing his hair.

Helen also expressed love for her email account and the way her family and friends can share health information with each other. She said they are constantly sharing health-related information available via different webinars, online videos, news articles, blogs, different forums, e-newsletters, and more. Helen explained that she uses the American Diabetes Association website often as she was recently diagnosed with Diabetes, she said “I learned so much about my disease by visiting this site, I don’t know how I would have figured it all out without the site.” This is congruent with Jackvony, Tate and Wing’s study (2003) which found the Internet to be an educational and behavioral tool for weight loss in adults with type two Diabetes.

Another participant, Anne, who recently gave birth, found the Internet to be her main source of information during her pregnancy. She discussed that she signed up on a website called The Baby Center that sent her weekly email updates of what was going on inside her womb with details such as “your baby is now the size of an almond.” Anne explained that, although she had her monthly doctor’s appointments, getting these weekly emails was,

a neat way to understand what was going on while my baby was growing...and helped me to understand what should be eating to help me be as healthy as I could for my baby to be as healthy as possible.

This type of behavior is very common among pregnant women. The social and technical designs of websites have been found to positively influence the way women feel about their pregnancy journey as well as provide support among other users of the same site (Ley, 2007). Furthermore,

now that Anne is a new mother of a three-month old, she says she is constantly using the Internet to find health information not only for herself, but for her daughter. As she explained,

I have used the Internet more than enough times to get health information and now with my daughter, I've never had a baby full time before (laughter) – I don't know how I would figure anything out without the Internet! I even watched an online video to learn the proper way to bath her!

Anne also talked heavily about a time prior to her pregnancy and how she lost about twenty pounds. She said she used the Internet to check her weight versus height to get her body mass index via an online calculator.

Mert explained that she has often used the Internet for health information saying she has “searched for signs and symptoms of a urinary tract infection, lower back ache and sinus infection.” Utilizing the Internet to find information like this is common among people with Mert's demographics and it has been found that they are turning to the Internet first when faced with health questions (Fox, 2006). Another health seeker, Mac, discussed that if she “ever has an ailment, I use sites such as WebMD to try to diagnose myself... but if I have any other health related questions, I usually Google search the subject to find sites.” Holly falls into this category as well as she shared using “the Internet to gather info about foods, glycemic index, exercise and medicines.” As she continues,

Sometimes I have just clicked on interesting looking articles offered on msn.com. Other times I have purposely looked for information [pause], for example regarding almonds, strength bearing exercises, walking, lipitor, bladders, heart disease, breast cancer and more. As I pursue healthier eating and living, I expect I

will, as I said before, use the Internet to research new topics to help keep me going.

Elle, a carbon copy of a “health seeker,” explained that she uses

the Internet all the time to gather health information. I daily look at the featured health section at Yahoo. I usually look at everyday wellness, diet and fitness or conditions and diseases. I like reading new topics on staying healthy, healthy eating ideas, different exercises... I have a condition called Colitis and I just got diagnosed with it less than a year ago and the Internet has been my main way of gathering information about it. The Internet has helped me to start changing my diet to help with the disease. This also worries me a bit because two of my grandparents have passed on due to cancer and different types – colon cancer being one so I feel I need to be as informed as I can in order to be as healthy as I can... and the Internet has proved to be the number one way for me to get this type of information... on the go especially! I travel into New York City from Jersey City a lot and will be on the path and using my PDA to get health info helps to pass time and I find it interesting.

Along the same lines, it has been found that approximately one fifth of U.S. adults say that a disability or chronic disease prevents them from participating fully in work, school, or other activities, similar to what Elle discussed in her interview. In addition, it has been found that half of those living with a disability or chronic disease go to the Internet to find the information they need to keep their lives healthy and to promote their wellbeing (Fox, 2007).

Overall, it was revealed that the interviewees had meaningful interactions with the Internet when searching for health information. The website WebMD was mentioned many times

as a trusted source, and almost all participants went on to explain that they use other “chain” diet organizations such as Weight Watchers or the South Beach Diet websites to get more information on recipes and calories. Utilizing these tools have empowered them to be warriors of their own healthcare battle, teaching them how to care for themselves and live to their highest potential (Fox & Rainie, 2002).

### Internet as a Dieting Tool

The majority of the participants revealed that one of their keys to weight loss had been using the Internet as a tool to teach them how to become healthier and diet successfully. The increase and extensive use of the Internet presents a novel opportunity for mass communication and patient education. Taking advantage of the new medium, people can benefit from Internet dieting as it offers social support, saves time, is economical, and is private and anonymous (Anhoj & Jensen, 2004). In the transcriptions, quotes such as “without the Internet, I never would have learned all the tricks to the South Beach Diet, how to cook or how to even read restaurant health labels” were mentioned many times. A male participant, Taylor, said that “the ability to make my own dinner helped [me to lose weight] tremendously, but I couldn’t have done it without the Internet.” He went on to explain that the diet only allowed him to eat certain type of meals in different phases which lasted for different periods of time, and he felt that he never would have learned about the diet or how to eat on it without using the Internet. Although Taylor had heard about the diet through friends, he felt he would not have been able to grasp the entire concept of the diet plan without having consulted the Internet because he said he was “not about to spend all the money on the book, when all the information was available online – why waste the money I barely have?”

This trend of visiting the Internet to learn how to diet was common throughout all of the interviews. Charts for diets and calorie calculators are plentiful on the Internet and, by using them regularly, users can achieve their targeted weight loss goals (Anhoj & Jensen, 2004). In this study, some participants had stronger views or experiences than others and overall, many agreed that learning how to count calories, exercise, cook, and find healthy recipes were the keys to their weight loss success. Taylor explained that he had to,

use the Internet to (1), teach myself how to cook, how long to bake, grill, etc. and (2), [helped me to find] recipes of what I should actually be eating... I looked online for recipes and meal ideas as a guide for my diet. The South Beach website taught me how to...cut out extra calories [as] I had realized how many calories I really was taking in each day. Once I learned this, weight started to come off pretty easily.

In a similar fashion, Jay also talked about using the Internet to learn about new, healthy recipes that fit within her Weight Watchers diet plan. For Jay, she has always loved to cook and had many favorite family recipes that were very unhealthy. She explained that on the Weight Watchers site she could input her family recipe and it would automatically calculate the amount of points per serving for her meal. Then, if she realized the points were extremely high, there were options of ways she could lower the point value by making it “healthier.” Jay explained that the site would offer tips on substituting her recipe with “items such as using more egg whites, or instead of shortening use applesauce or nonfat plain yogurt.” Jay went on to share with me that having this component of her weight loss plan was “probably how I survived, being able to still eat the foods I’ve always enjoyed. The Weigh Watchers E-tools are really helpful in that way.”

Other interviewees discussed how much they utilized the Internet to find nutritional facts of foods and about their favorite restaurants and how it helped them while trying to lose weight. Focus group studies have confirmed that this use of the Internet is one of the top reasons for online weight loss success (Balasubramanian & Cole, 2002). Anne talked about an issue in which her company went out for lunch as a team every Wednesday. In the past, she had always gone to whichever restaurant and ordered whatever sounded good at the time. When she was on her weight loss plan, Anne started to request the team to eat at a chain restaurant. This way, she was able to go online and preview the menu and pick out what she would order before she got to the restaurant. She said that “websites like [calorieking.com](http://calorieking.com), [ediets.com](http://ediets.com) and many others helped me get where I needed to be because I learned how many calories are in different foods.”

Mert, who was also on a Weight Watchers plan, felt she truly needed the Internet to learn how to read health labels and how to understand the nutritional facts of restaurants. As she explained, “my new husband and I eat out all the time, and in order for me to be able to make smart choices, I had to visit sites like [dietfacts.com](http://dietfacts.com) almost daily to be sure I was staying on track.” She went on to explain that she often used the Weight Watchers website to lose weight and now she “goes online everyday to count points, check recipes, read and participate in the forums, read the articles, find new foods to eat and more.”

Many of the participants found online food diaries to be one of the key components to their weight loss success. Furthermore, in a study that aimed to help patients pursue healthy behaviors to lose weight, online diaries were successfully used as a vital component (Woolf et al., 2005). May explained:

I really had no idea how many calories I’d been consuming everyday until I started tracking it online... I’m not very organized, so by being able to go to one

website where I typed in what I ate and be able to easily look back at other days, I guess.. I just felt I had my entire so called ‘diet journey’ in one simple place, and I really liked that.

Other participants found this online tool beneficial as well. As Bown explained in his interview, I use the Internet all the time to learn about healthy dieting. I have used fitday.com particularly to lose weight. It calculates the calories you eat throughout the day and where your calories are coming from [e.g., it is carbohydrates, proteins, fat]... This part I really enjoy because it’s hard for me to sit back and realize where all the calories are coming from, but seeing a snapshot like this helps me to realize when I need to start making a conscious effort to eat more vegetables, or cut on carbs... and so on... The website really helps me to learn what it is I’m eating that works for me, and what doesn’t... I can also make meal plans for upcoming days, or I can even track my body measurements to see how many inches I’ve lost (or gained!), and then get body measurement reports which are pretty neat to view (if I’m doing well! ... pretty discouraging if I’m not).

Dietary self-monitoring, such as what Bown and Anne are referring to here, is considered the cornerstone of all weight loss programs and is essential for victorious weight loss (Gold et al., 2007). There are many ways the Internet can be used as a teaching tool for U.S. adult consumers to learn about how to diet – in healthy ways and occasionally some unhealthy ways.

#### Internet as an Exercise Motivator

The literature review acknowledged that there is a large amount of preexisting research correlating Internet usage of adults with moving less and being less active (Bremer, 2005), but



through research and interviews, it has been demonstrated that the Internet is an open door to a world full of good health education. While gathering participants' health narratives, the theme of utilizing the Internet as an exercise motivator was apparent. Some were motivated by reading blogs and websites, others through their email, and a few utilized the online interactive tools (e.g. exercise calculators, heart rate monitors that syncs with online computer programs). Helen was motivated to exercise by using the Internet to help her purchase a stationary bike:

The reason I bought my stationary bike was because of an article I read online about someone who had such success in their weight loss by riding their bike [in their house] every morning during Good Morning America... I watch that show every morning for about an hour and figured it'd be pretty easy to be riding a bike during that time instead. The article inspired me and I clicked on some of those links and I found my way to a website where I could purchase used aerobic equipment. I found a bike that fit my needs and that was definitely a great way the Internet has helped me, I don't know if I would've bought or found or even thought of buying a bike without having read that article and having the immediate links to purchase a bike. The bike has been so helpful while I've been trying to lose weight. Especially because I live in New Jersey and it's really cold here for many months and I wouldn't of had the might to get all bundled up for a bike ride or walk or whatever, so this bike in the house has been the best!

Nowadays, people are extensively encouraged to become more physically active and the Internet has been brought forward as an effective tool to change and help motivate physical activity behavior (Van den Berg, Schoones & Vlieland, 2007). Ace talked about an exercise plan that helped him get into shape and lose weight that he found via the Internet: "I began to train for

a triathlon and the Internet provided a 12 week training schedule... it's been a great way for me to work out everyday, and I've been losing weight." He explained that this training program ([www.trifuel.com](http://www.trifuel.com)) has kept him motivated and on track. Ace explained that he enjoys being able to chart where he is in the training process and that seeing it in front of him is a great motivator to "keep pushing harder, and training further." When Ace and I were ending our interview, he shared that "bottom line, it's [the Internet] a great source of information...you have dozens of articles, self-help oriented programs and teaching methods for nutrition that are at your fingertips...I honestly can't think of a better way to lose weight."

Many of the participants found Internet articles and blogs to be exercise motivators because they contained information they could relate to. Additional research supports that web-based exercise motivation programs have been found to help people get moving and increase their activity level (Evenson et al., 2005). These findings are important because they provide sound evidence that delivering motivation via the Internet is effective and may help overcome barriers such as lack of access to fitness facilities and time constraints. May felt that "reading blogs are extremely motivating [because] they're stories about real people, and it makes you realize that you can achieve your weight loss or health goals, too." She explained a time when she was a bridesmaid in a wedding and spent a summer trying to get in shape as the dress exposed a large portion of her back. As she describes it below,

I found some specific back targeted exercises that I could do at the gym that really helped me get in shape and lose my back fat...I wouldn't have found that stuff without the Internet because I wouldn't of known where to look and I know I wouldn't have bought a book! This was just an easy way to get the information I needed that was specific to me. Had I waited until the next edition of a fitness

magazine hit the shelves, I wouldn't have known if it even would have had the specific information or exercises I needed. But, reading it online and seeing 'before' and 'after' pictures, I was able to get what I needed, (pause) tailored to my needs.

While reading web pages and blogs were very popular to some individuals, receiving newsletters emailed (e-newsletters) was also a well liked way of finding exercise information online. In a study to examine how people at risk for type two Diabetes could help to avoid the diagnosis, it was found that participants in e-counseling who submitted calorie and exercise information and received weekly email behavioral counseling and feedback from an e-counselor had much more success than those without this element of their diet program (Jackvony et al., 2003). Jill had an interesting story in which some of her online activities brought her to the doors of a gym and is now a regularly attending member.

I started visiting some websites to get some new recipes for my family... [and] somehow I came across the Curves website and signed up for their weekly emails. After some time, I learned more about the Curves workout program by doing research [online] and eventually landed upon an 'online special' for a free month. I did an online search (large smile, pause) and found the location closest to my house and decided to try it out the next week. I really liked the first month and decided to continue on as a member. I believe my membership at Curves really helped me in my weight loss...and I think getting those weekly emails is what encouraged me and educate me to join. Had I not been online and learning about their program, I never would have had the knowledge to join – or the free pass!

Jay also talked about weekly emails that motivated her to exercise more, in particular, running:

I was never a big runner, but I signed up for a runner's weekly newsletter and it's helped me to become a better runner. I get tips on how to build up distance, how to run in the cold, new playlists to download [to my MP3 player], what types of shoes and sports bras to buy and more. I like reading the consumer reviews, that's very helpful and it totally motivates me!

As many individuals enjoy the personalized touch they receive when they get an e-newsletter they have opted in to receiving in their email inbox, others took it a step further and took advantage of the interactive tools offered online to help with weight management and exercise. On average, it has been found that people who take advantage of the interactive tools offered online have experienced significant decreases in BMI, waist girth, and resting heart rate (Kwon & Xie, 2003).

Online tools that allow people to track the amount of steps their feet take each day have also become popular. In a study with a control and experimental group, it was proved that those who wore a pedometer daily, logged their steps online, and received email motivation lost significantly more weight than participants who logged steps in a notebook and did not receive email motivators (Bengoecha et al., 2007). Holly opened up about a site she often uses in conjunction with her pedometer called Walk About. She felt that "the main way the Internet helped me lose weight was by reading articles on walking...[which]...have encouraged me to walk more." Holly explained that the website sends her weekly emails with motivational tips for walking, as well as facts about nutrition and more:

There is also a part on the website where I log in [with a username and password] and enter my steps I've walked each week or day. Some people log in their daily steps, I prefer to write mine down in a mini notebook each night before I go to bed and then on Sundays I [go online and] enter in my weekly steps and compare how I've been doing in the weeks before. This helps me understand if I need to be walking more and see how I'm doing... Since I am retired I'm not on the computer everyday, so it's easier for me to just input my steps once a week. When I was working...I was inputting my steps each morning for the day before. Since I've retired, I've taken more steps and I think it's because I have more time in the day to walk and I'm more active throughout the day doing different things rather than just sitting at a desk all day.

Angelica also talked about using online interactive tools to aid in her post freshmen year of college weight loss. Specifically, she used an online calorie and exercise calculator to keep track of how much she was eating and exercising. The exercise calculator took intensity and duration into consideration and it helped her understand how much she needed to exercise to compensate for the foods she ate that day. Angelica did this by pledging to join one of the Self.com "challenges" to lose eight pounds:

I had received the [*Self*] magazine in the mail and it served as a great motivator to get me to exercise more. I was interning that summer at a Public Relations agency and spent a lot of time on the computer doing nothing, so checking out their online weight loss program was a good fit at the time. When I didn't have projects to do for work, I'd log into Self.com and track my meals, plan meals, find new work out plans and gain support and encouragement. This was a really great way

for me to kick start my 15 pound weight loss. I became very educated on how to become healthier and it's helped me a lot, even now, years later.

Online calorie calculators have been found to help individuals lose weight when they are unaware of the amount of food they are consuming each day. Tools such as these help educate and inform individuals on ways to eat less and lose weight (Kerwin, 2006). Jo also used a calorie calculator when he was trying to lose weight. He said he found nutrition data on websites and then was able to keep track of the calories, protein, fat, and fiber intake. As he said,

I've used a calorie calculator to figure out how many calories were burned during a workout. This one was especially great because after I started to use it a bit, I realized that if I stayed [at the gym] just an extra 20 minutes, it could really help in the long run. I think this has been a great motivational tool for me and keeps me working out longer!

Using the Internet to download music to listen to while exercising has increasingly become a popular online activity (Alvarez, 2006). Burns explained that he liked to use the Internet to download music to his IPOD to keep him motivated while running. Over time, he found different websites with workout and playlist suggestions that complemented one another. He went on to talk about being "intrigued" by the relationship with Nike shoes and IPODs and I shared with him what I learned during my research about this relationship. He explained that he had read some blogs discussing the topic and thought it would be a great way to run longer. He said, "reading success stories of others and finding new, interesting workouts online is motivational. I've also ordered exercise equipment on Amazon.com and that itself can be motivational. I get pumped up about the new gear!"

Bown discussed using a program similar to the Nike and IPOD relationship with Polar watches. He wears a heart rate monitor around his rib cage and lets the watch keep track of time while exercising. Upon completing his workout, Bown downloads the information onto his computer and charts are automatically created to view his progress. Bown explained that “the weekly tallys of ‘calories burnt’ keep me motivated... if it’s getting to the end of the week and I’m not at my goal, I know I need to start spending longer at the gym.” The key to healthy weight loss is the combination of exercising right and eating right. Heart rate training for weight loss helps people develop an effective and healthy weight loss program and by monitoring their heart rate zone for calorie burning (Polar, 2009). A Polar heart rate monitor is a tool that can help people pace themselves in order to exercise longer and burn more calories. Bown’s computer program works in conjunction with the Internet and is a perfect example of an online interactive tool that educates and motivates users to stay on track and eventually lose weight.

#### Moral Support Provided in Social Networking Sites

As referenced in the literature review, social networking websites have become extremely popular. People are joining these sites to become virtual friends with people and use different messaging tools to communicate and socialize (Ibrahim, 2008). Some of these tools have emerged into health websites. From the interviews, it was revealed that people are starting to use social networking sites for moral support during weight loss. It was also found that many people are inspired by the stories found on these social networking sites. The blogging and personal sharing that anyone can read have motivated many people to become healthier and try to lose weight.

May stated that she “has frequented sites that include blogs where people tell of their road to a healthy lifestyle... I think I liked that because I find it inspiring and it reminds me, hey, I can do this too!” This theme was common during the interviews and many of the other participants made comments similar to May’s. One man shared a story about training for a triathlon and how the Internet has played an integral role in educating him on how to train adding, “Plus, I would read stories and view pictures of other people achieving their goals and completing their triathlons, and it would motivate me to keep working harder.”

Jill, a busy stay at home mom, said she enjoyed participating on social networking sites because she would learn from the other members and did not feel so alone, thinking to herself, “if she can do it, I can do it too! Especially for the women who are full time moms and have full time jobs! [hahaha] It’d be like a reality check, and I knew I could do it then!” Burns also agreed with this stating specifically that he thinks other “peoples’ stories about how they lost weight are very inspirational. Everyone has a different story and at some point, you will come across that is similar to yours... which should motivate you – it does for me!”

These examples demonstrate that good health and dieting support can be achieved through social networking websites. In a project that aimed to determine the effectiveness of an Internet-based program for obesity management, online social support was found to be one of the key items that helped encourage others during their weight loss journey (McConnon et al., 2007). Another way participants gained weight loss support via social networking sites was through resonating with others in their network. Jay shared that she enjoyed reading and participating on a message board through the Weight Watchers website because it was specifically for women in their early 20s. “It’s basically for young girls who are going out and are on the Weight Watchers plan... we use each other as a support and sounding board... it was nice to have people who



could relate to me.” Angelica also had a similar experience as she joined an online group called “Single and Ready to Lose:”

It was pretty neat, we all supported each other and I liked it because we didn’t have to make up excuses or get embarrassed when we weren’t doing well. I had a code name and I’d go in and talk about good or bad days and they would all help with comments and suggestions and stuff. It was nice to know other people were in the same boat as me. And if I was having a hard day or week or wasn’t losing the way I wanted, it was inspiring to know pretty much everyone else in the group had felt that way at one point or another.

Angelica went on to discuss some of the communication methods the group used:

We also had some cool tools where we could send each other in the group e-cards. I’ll never forget when someone sent me one for the first time [pause] because... I guess I was just so surprised and appreciative. I mean, this person didn’t even really, really know me you know? Just knew my code name and email address but cared enough to brighten my day like that! It was so sweet, definitely kept me coming back to the site and wanting to help in supporting all the other girls.

Anne agreed with many of the interviewees that “sites where people interact with one another are very helpful.” She explained specific examples stating that,

many times I would be on the Weight Watchers or ediets.com and would write ‘I am tempted to eat the donut in the kitchen’ but, people would write back to me ‘that donut is 330 calories, do you want to work out for one hour to burn that off’ and so, I would agree and it would help me make decisions. Moral support is the best tool for losing weight.

One of the interviewees discussed a time when she lost a lot of weight due to a diagnosis with Diabetes and how much that affected her. She explained that she had been overweight most of her life and that she loves to cook and enjoys making good food (i.e., unhealthy, rich, high in calories), so it was extremely difficult for her to alter her entire diet and eating routine. Other studies conducted to analyze the usefulness of online support groups for those recently diagnosed with Diabetes have found great success (Eysenbach, Powell, Englesakis, Rizo, & Stern, 2004; Jadad, Enkin, Glouberman, Groff, & Stern, 2006). Helen said she has been able to turn to the American Diabetic Association (ADA) website in order to get some help “since I’ve been diagnosed with Diabetes, I use the ADA website to connect with other adults through their message boards... it’s a safe place where we can make jokes, share recipes and support one another.”

Another participant shared with me a story about his mother and the website she has been using to lose weight:

She uses a site to connect with other people... they go on everyday around 9AM and share how they’re feeling [about their weight loss] and their ‘game plan’ for the day. The group leader posts a message with some advice for the day, something inspirational to help them get motivated... I remember when she lost 20 pounds before my wedding and was so excited to share it with her group!

Sometimes it seems like she talks with them more than people in our family!

This is a very strong example of someone relying on the Internet to get moral support in their weight loss journey. It is amazing how social networking sites can give people the support they need, while creating new virtual friends they have never actually met in person.

Jo explained that, as a man, he did not want to be seen in a Weight Watchers meeting, but he felt it was more acceptable if he was following their program and going online to communicate with others and track his weight loss journey.

I didn't want to sit in a room with all those women as they talked about issues that weren't relevant to me... I couldn't help but think, what if my friends' Mom is in there? Or if I saw one of my Mom's friends?! I'd be so embarrassed! [Laughter]  
But by being part of the online program, I could talk with other guys and get support and still follow a healthy program.

In the end, many of the participants interviewed found the Internet to be helpful for social networking and utilizing it to support their health and weight loss. Some people used it because they found the sites inspiring, others felt they could relate to the people in their group or the stories they read, and a few used the sites because they were embarrassed to be in face-to-face groups as they discussed this sensitive subject. In the end, it appears that the Nielsen/NetRatings prediction that social networking is not just a fad, but will increasingly become an activity imbedded into all mainstream websites (Ibrahim, 2008) is a proclamation that is on track to being fulfilled.

#### Consumers' Lack of Trust in Utilizing the Internet for Health Information

After transcriptions were completed and analyzed, another common theme that emerged was the idea that many individuals felt a lack of trust in the diet information they found online. Although a Pew Internet and American Life Project in 2000 found Americans trust the Internet for email purposes, advice on private aspects of their lives, to find friends, and for health information, a more recent study in 2005 showed there to be a strong sense of distrust by many

Internet users' of the online world. Specifically, it was found that over half of Internet users worry about receiving bad medical information online (Fallows & Fox, 2005).

In the study presented here, Helen recognizes that there are others out there who believe that,

everything is true – because they saw it on the Internet... [but] some sites are biased and may give misinformation because they're selling products. You have to check stuff out on reputable sites...that are dot org or dot gov for reliable information.

One of the interviewees specifically talked about websites that have been known to promote eating disorders such as anorexia or bulimia. Bown explains that “the sites appear to be giving you tips on how to cut back on your eating and daily calories intake, but if you look at the URL, the site is called ‘Pro Ana’ for a reason.” This was an interesting comment made in the interview and after following up the lead, I discovered the site had been shut down, but a site listed at [http://www.geocities.com/genevieve5566/proanabe\\_sttip.html](http://www.geocities.com/genevieve5566/proanabe_sttip.html) is still in existence, offering people (mainly women) tips on how to keep themselves from purging, which after careful reading, meant how to keep yourself from eating at all. The tips included items such as,

Eat alone in your room. Have a trash can near you. Chew the food and let it sit in your mouth a bit so you can taste it fully. Spit it out into the trash can. Repeat till you are satisfied. Throw the trash bag away but be sure no one sees you. This will fulfill your taste buds and keep you from bingeing therefore you have no reason to purge (ProAna, 2009).

There was also a food diary from the website's author explaining daily meals in which entries such as these appeared:

July 20<sup>th</sup> 2003, Today I ate 2 egg whites 100 cals, 1/2 a piece of beef jerky 50 cals!, 7 layer burrito 520cals (but I threw it up), Total cals 670 (I'm not sure how many though since I threw the burrito up) (ProAna, 2009).

It is quite clear to an educated person that this is not a healthy way to diet and that this type of eating promotes eating disorders, such as displayed here, anorexia. The site goes on to allow users to post their statistics on how well they are doing on their “Ana Journey.” Most of the statistics read things such as,

Name = Kayla, Age = 17, Time with ana/mia = 2 years, Weight = 94, Height = 5'5, Reason for becoming ana/mia? = My mom has pressured me and pushed me to be skinny and I feel this is the only way to escape that (ProAna, 2009).

Sites like these were referenced many times in the interviews and because people know of their existence, many people do not feel they can trust some of the diet information found online. The interviewees also seemed to feel the Internet could promote unhealthy fad diets or showcase advertisements for companies just looking to scam people to make money. Data from the Health Information National Trends Survey (2007) portray a tectonic shift in the ways in which people consume health and medical information, revealing more patients look for information online before talking with their physicians. Despite newly available communication channels, physicians remained the most highly trusted information source to patients, with 62 percent of adults expressing a lot of trust in their physicians. Nevertheless, when asked where they go first when looking for health information, 49 percent reported going online first, with only 11 going to their physicians first (Bradford et al., 2007). As Jay explained,

I think some people look online for a quick [weight loss] fix... which is never good...there are a lot of false promises out there.” Jo seemed to feel that “the

Internet could promote unhealthy or yo-yo diets [because]... it is easy to get sucked into a fad.

Jo also explained that he does “not completely trust the Internet” and that if he checked with Web MD and determined that his symptoms were associated with a specific illness or disease, he would first consult his physician before making any decisions. He went on to say that “there’re lots of sites out there that offer free counseling and diet plans, they just seem a little too hokey or illegitimate to me.”

Holly also talked about “folks getting misinformation on bad sites” and May shared that she thought “the Internet can also promoted crash dieting, fasting, diet pills, and celebrity fad diets.” Overall, many of the participants agreed that it is always important to check with one’s doctor before starting any type of program online because it is not smart to trust all of the information available online. This lack of trust is interesting as all of the users utilized the Internet for health information during their weight loss. It can be inferred from the interviews that most people feel they can use the Internet for health and wellness information to educate themselves on basics (e.g. how to cook, recipes, importance of vegetables, calories in a food) but when it came to complete meal plans or diet pills, these were the areas to avoid.

It has been found that typical health seekers start a hunt for medical information at a general search engine, not a medical site (Fox, 2002). They tend to visit two to five sites, spending at least thirty minutes on a search and feeling reassured by advice that matches what they already knew and by statements that are repeated at more than one site (Fox, 2002). In addition, they generally do not trust sites that appear to be selling something or that do not clearly identify the information source and they are more focused on getting the information fast than in finding a trusted name (Fox, 2002). The interviewees in this study agreed that they would

get a final check from their doctor before making any major personal health decisions, but research has revealed that although people intend to do this, only about one third of health seekers bring it to their doctor for a final quality check (Fox, 2002).

### Uses and Gratifications of Online Health Seeking

The interviews revealed a multitude of reasons participants chose the Internet as their medium to gather health and diet information. Some utilized the Internet because it was easy to access and use, others felt it saved time and money, and some preferred using the Internet for health information because it is constantly being updated with new and current information.

Participants Jo, Helen, and Holly all talked about the fact that they enjoyed using the Internet because of its ease of use and simple accessibility. Jo explained that the main reason he uses the Internet “because it’s so easy to find... I am in front of a computer [with Internet access] all day and I have access to all kinds of valuable info[rmation] at the tips of my fingers.” Helen was on the same track as Jo saying, “it’s literally easy to get---at my fingertips!!” She continued to elaborate on this topic explaining that the immediate gratification was another reason she found the Internet to be her main source of health information. She said:

You can read a news story about an older person who has overcome obstacles --- like being overweight---and get inspired...and then...at the end of the video or article there are links. I click on these all the time! Because there is information IMMEDIATELY, a person can get inspired and follow up without delay!! The follow through is easier...or at least, it can be. I feel like when I get motivated, I have more diverse and plentiful opportunities! These types of stories or days always motivate me to be more active.

Holly also explained that she enjoyed using the Internet for health information because it is so easy. She stated that “it’s easier than phone calls or writing letters of inquiry...it’s fast, simple and leaves no more excuses for people who’re genuinely interested in helping themselves... the Internet can be an excellent tool for taking responsibility for our own well-being.”

Consumers, students, teachers, businesspeople, medical patients, and activists can all find something of value on the Internet. This is what keeps them returning, in addition to its ease of use and continuously updated with new information (Angleman, 2000). Users expect to have certain needs met when they go online, and most often those needs are satisfied. As the Internet expands, more choices in media use are available: streaming video, movies on demand, social forums, Internet radio, digital newspapers, magazines and even complete books. No other medium has incorporated more cultures, belief systems, communications methods, and global considerations than the Internet (Angleman, 2000).

#### “Free” Use of the Internet

One of the best attributes about the Internet is that it provides people with information that they might otherwise have to pay for (Sternberg, 2003). Over half of the participants commented on the fact the Internet was free and acknowledged that it was one of the reasons they used the Internet when looking for health information. It is a known fact that the Internet is not actually “free,” as someone – a business, library, university, etc. – is paying for the access. To some individuals it is considered “free,” such as the college student who gets “free” wireless on campus, or the secretary who only uses the Internet while at work to avoid monthly fees, or the recent college graduate who uses a local library for Internet, to these people, the Internet is



free, and for these reasons, many people enjoy utilizing it in place of purchasing other mediums such as books, magazines or newspapers. As Holly said, “the Internet is available to everyone... for free!! Even people who don’t own a computer can go to a local library and access the information that is vital for change and healthy living.”

Jill, the stay-at-home-mother of three, explains that she enjoyed finding recipes online because she is able to go to many different websites, for any type of food, and never has to purchase or spend time shopping for a recipe book. Jill felt that:

The Internet mostly helped me to start changing my lifestyle by giving me a new way to gather new healthy recipes without having to purchase and go through several books... I also use several websites to find new and healthy renditions of favorite foods. And, the free one month coupon to Curves (that I found online), I really think this is what helped me to actually join and I feel the Curves membership has been crucial to my weight loss.

Elle, the New York City model, also enjoyed using the Internet for health information because it is “free” saying:

I feel that working out and staying healthy is part of my job, I could very easily not get a job because of the way I look. I don’t have the budget to have a personal trainer but I can go on [the Internet] and find new workout routines and view mini videos... I love getting new exercise moves or different routines, I’ve also got some great advice on good workout videos. Like I’ve said, I don’t have a lot of extra money for the gym or a trainer but I love to purchase workout videos that I can just do from home. I really like Pilates and I love the fact I can go on the

Internet and learn more about a DVD and even get a snapshot of what's to be on it before purchasing it.

Angelica, who is in the same age range as Elle, also commented on this attribute of the Internet, stating that she “looks up different exercises or stretches to do to change my workout. I do this because it's cheaper than hiring a nutritionist and or trainer, and a lot faster too.” Burns' interview also went in this path explaining his views that “with the economy the way it is today, people... don't want to spend more money... on a nutritionist or trainer, but the Internet is a free, good resource to add to your diet and or workout.”

Not only do consumers like saving money these days – but time too. A popular reason the Internet has increased in users over the past five years is because people are realizing how much time it saves (Rains, 2009). Writing an email versus mailing a letter, printing out directions versus analyzing a map, these are some of the ways the Internet saves us time. Mac explained the use of an online interactive tool that helped her to save gas and time.

I also use mapmywalk.com to map out walks for runs and bike rides while training for half marathons and triathlons. I like this one the most because it helps me not have to drive my car all around town to create routes that are in the mile ranges I need. In the past, before I found this website, I had to spend a lot of time driving around trying to create 9, 10 mile running routes, and it just took so much time, energy and gas. It was also frustrating, sometimes I'd drive a run route and get back to my house and realize it wasn't long enough and I'd have to go out and do it again!

There are also other various sites I've used to help me develop training programs, as well... I've done a lot of research online to find training programs for half

marathons and triathlons. Without these types of sites I'd have to spend a lot of time and money on other methods such as buying books, joining clubs and more.

Many of the interviewees revealed that they liked using the Internet for health information because it is a media source that is continuously updated. In a study conducted to examine why college students solely search online for school papers, it was found that they felt using the Internet was the best way to get the most up-to-date information (Ly, 2005). As Mert explained,

I think I like knowing that it is constantly updated with new information and I can learn exactly what's 'hot and new.' Comparing to the books I used to read, that information never gets updated whereas the Internet always does.

Bown also talked about his favorite health and diet focused website FitDay.com stating that he logs on almost daily to "see what new articles are on there... I like that it is always being updated with correct information and topics." Holly agreed saying,

I think people who want to make positive changes in their lives also want to take advantage of the most up-to-date information...and all the trends that have worked well in the past...and to gather all the best information available today.

Overall, participants revealed that they spent more time online looking at the different sites as they were experiencing more weight loss and this helped them to stay motivated. Best liked sites were revisited, less time was spent on other online activities such as email or Facebook, and most users found themselves reading more articles online and spending more time finding health information online. Some people expressed the fact that the Internet does not always share the information they are looking for, such as Holly who said:

I use the Internet more as I find the information I am looking for – sometimes it's not always the answers that I want to hear (such as reading that I really need to walk four times a week when I only get in two), but I do enjoy finding the information and will continue to use it.

The next section will go into further detail outlining the academic meaning and evolution of the Uses and Gratifications theory. It has already been demonstrated how the participants used the Internet and felt gratified, but now it is important to include a description of the theory's core elements and how it is applied to the mass media, in particular, the Internet.

### Theoretical Analysis

The type of behavior revealed in the interviews is consistent with the media and communication theory called Uses and Gratifications. This theory is the theoretical foundation of the interview findings. The Uses and Gratifications theory unfolded over the course of mass communications studies to better understand media effects and why people consume media (Ruggiero, 2000). The theory hypothesizes that audience members actively seek out mass media to satisfy personal wants and that they make conscious decisions on what they see, hear, or read in the media (Littlejohn, 1996). One of the key principles behind the Uses and Gratifications theory is that media use is selective and motivated by the individual's personal needs (Katz, Blumler & Gurevitch, 1974). There is an expectation that those needs will be fulfilled by a certain type of media. Because of this, as long as new forms media are developed, the Uses and Gratifications theory will be continuously evolving.

This theory is represented in this thesis as consumers act as audience members and are able to actively choose which media form to consume in order to fulfill their needs. In the

example of this study, participants unanimously chose the Internet as their medium when looking to fulfill their need of health, diet, wellness, and fitness information. Although other forms of media were available to them (i.e., magazines, books, television), it was the Internet that the users found most gratifying to their needs.

Part of the evolution and future for Uses and Gratifications includes applying the theory to new technology such as the Internet. Uses and Gratifications theory applied to the use of the Internet was highly analyzed by Ruggiero (2000). The Uses and Gratifications perspective has three basic assumptions about audience and media relationships: (1) it has been conceptualized that audience members are active choosers of their media, (2) it is believed that audience members are aware of their needs, and (3) audience members pick their media use to gratify those needs (Blumler, 1979; Swanson, 1979). This is what was done by the participants interviewed in this thesis. The users were aware that they needed to lose weight, chose the Internet as their main medium for information, and felt their needs were fulfilled as they lost weight.

There are a multitude of human needs or reasons to use media. In a study done in 1973, Katz, Gurevitch, and Haas identified 35 of these needs and divided them into five general categories: integrative needs, affective needs, cognitive needs, needs related to escape or tension, and needs to keep social contact and communication with family and friends. For example, in this study, it was revealed that Elle had recently been diagnosed with Colitis. As she found the need for information about the disease and the best ways to alter her diet to ensure optimal health, she first turned to the Internet, in particular WebMD, to seek answers. This is an example of cognitive information seeking. Furthermore, as Helen discussed in her interview, she wanted to communicate and have a support group of others who had recently been diagnosed with

Diabetes and found that using the Internet was the best method for her to create those connections. She explained that this was done by joining virtual online communities, visiting tailored Internet bulletin boards and emailing with others all over the world facing the same problem. This is an example of using the Internet to fulfill a social communication need.

The Uses and Gratifications theory has been common with qualitative research because it sheds light on why people select certain media over others. Since this type of research does not reveal the current patterns of media use (Bela, Dias, Holt, Mahoney, & Pacheco, 2001), many Uses and Gratifications studies also incorporate quantitative research into their study. Quantitative research asks questions that describe the “what,” “where,” and “when” of research, whereas qualitative studies seek to understand “why” and “how.”

Overall, many scholars offer a vast and multidimensional approach towards the study of Uses and Gratifications. Much of the researchers’ intent surrounds the opportunity to identify key reasons individuals adopt specific media usage (e.g., motivations such as to be healthier) and what gratifications result from such use (e.g., weight loss, increased fitness levels, lower blood pressure levels). The primary assumption is that audience members actively select their media based on an awareness of their needs. The future of the Uses and Gratifications theory presents an opportunity for a formalized convergence between academic, business, government, cultural, and social dimensions, as it relates to the role mass media plays in each person’s life. It clearly has been shown to be prevalent in the lives of the individuals who participated in this study, and will sure to be the theoretical foundation to others as users continue to turn to the Internet first when seeking health information.

## CHAPTER 5: CONCLUSION

### Findings

As the amount of health, diet, and exercise information on the Internet continues to grow in amount and accessibility, U.S. adults will continue to benefit from this information. This study aimed to shed light on the positive impact the Internet has on U.S. adult obesity. Recall the research question: What are the perceptions of U.S. adult consumers regarding the positive influence the Internet has on weight loss? Using a qualitative method of interviewing fifteen participants, this study has revealed that the Internet is a great way to gain health knowledge. Other reports have coined the term “health seekers” and “cyberchondriacs” as individuals who use the Internet to obtain health information. As these “health seekers” and “cyberchondriacs” educated and informed themselves on human health and wellness, many have experienced weight loss.

From the data analyzed in this thesis, I, the researcher, came to the conclusion that U.S. adults view the Internet as an information source, especially for weight loss. As interview participants discussed their weight loss journey and explained the role the Internet played, it was determined, from their narratives, that there was an overall positive perception of the information obtained on the Internet. Individuals used the Internet for general health seeking about their body, ailments, or to find information for others such as family or friends. The Internet also served as an educational dieting tool as many people turned to it to learn how to read food labels and count calories. Finding healthy recipes, teaching themselves how to cook, and educating themselves on the best ways to eat healthy when dining out were all diet related topics

participants searched for online. They also learned how important exercise is when trying to lose weight. As a result, it was determined that the Internet worked as an exercise motivator. Through online education, forums, e-newsletters, and exercise calculators, U.S. adults have been inspired to move more and become more active. Moral support offered through social networking sites was also discussed as a key to staying motivated in weight loss. This was provided to the participants on particular websites they chose to join. This is how U.S. adults construct their reality *via-à-vis* overweight and obesity and, ultimately, weight loss. As humans have entered the age of social networking (i.e., Facebook, MySpace, LinkedIn), the Internet can be used as a vehicle to construct social reality by allowing people to connect among each other, and share tools, methods, and ideas around adult weight loss. This is the type of sharing available on social networking websites. The data from this study has revealed that the person has to be motivated and determined to seek out this information. As more people are caring about getting healthy, the Internet has made it easy to search for answers. Furthermore, the interviews revealed that consumers have a common lack of trust about some of the dieting and health information found online. They were skeptical about trusting every website and felt that eventually they would need to consult with their physician before making any major decisions about their health.

Last, the theory of Uses and Gratifications emerged as the underlying reason individuals browsed the Internet for their health and diet needs. This is because the consumers (or “audience”) were active in making the decision of which media outlet to use, and they continued coming back to the Internet as their resource after their needs were fulfilled. The Internet was chosen as their medium for health information because of the ease of use and accessibility, the fact that it is constantly updated with new information, and because it is considered a “free” way to gather information.



Overall, the researcher recognizes that despite being an advocate for using the Internet to lose weight, the ultimate decision and goal have to come from within. U.S. adults are able to utilize the Internet to gather that motivation through daily inspirational emails, blogs, or websites. Consumers need to make the decision to hold themselves accountable and take advantage of all that is available to them. The Internet is a great aid in helping people by challenging their abilities and empowering them to reach their dreams.

The researcher's ultimate goal was to unveil the positive influence the Internet has on U.S. adult weight loss. This qualitative research study concluded that U.S. adults have often turned to the Internet as an aid in their weight loss journey. U.S. adults have a positive perception of the Internet and feel that most adults would benefit from using it to find health information. This thesis now provides more information available to U.S. citizens about the usefulness of online health information. It is clear that in the future, this trend will continue to increase as the Internet continues to grow and expand, more individuals get online and as the gap between the digital divide lessens. As a researcher, I broke down the phenomenon that U.S. Americans are able to use the Internet to positively affect their weight and I analyzed its components to determine the fact that the Internet can act as a positive aid in our growing obese nation.

### Limitations

This qualitative research study presents several limitations. The first limitation pertains to the limited number of participants. With just a few months available, it was a challenge to fit fifteen participants into the interview schedule. In addition, the interviewees had to fit a certain set of parameters in order to participate. This limited the study because it constituted a challenge to find enough participants, but it was imperative to the thesis and research question that a

certain group of people be interviewed. It is possible that if a gift or incentive was provided to the interviewees for participating in the study, recruitment could have been easier. It is also important to note that although this thesis was aiming to understand the perceptions of U.S. adults, fifteen interviewees is not representative of the entire U.S. population, and in the future, more participants would be needed for a more accurate snapshot.

Second, the study could have been strengthened if there were a more diverse sample. Many of the participants were in the 20-24 age bracket, with only three of the adults over the age of 55. There were more women than men and they were all middle-class Caucasian Americans. The United States is known as “the melting pot,” so diversifying the sample by including Hispanics, Latinos, African Americans, or Asian Americans would have provided a more accurate picture of the perceptions U.S. adults have on the positive influence the Internet has on weight loss.

A third limitation relates to the method used in this qualitative research study: face-to-face interviewing. Some of the fifteen interviews might not have obtained typical accounts of what obesity or overweight is. Mishler (1995) observes that “the teller of the tale is also engaged in a retelling. The version we hear or read is shaped both by the context of its telling and the history of earlier retellings” (p. 118). In other words, it is possible that some of participants changed their accounts for mysterious reasons. Of course, when conducting this type of study, there is always a risk of distorted interpretations made by the investigator. Including the use of a focus group could have helped to strengthen the study by providing a larger sample and a larger plethora of opinions and viewpoints.

Fourth, none of the participants was affected by the digital divide. Each person had the luxury of Internet access, not only every day at work, but also in the privacy of their homes.

Incorporating individuals who are affected by the digital divide and who have to seek out the Internet in a library or public facility would have also improved the study.

A fifth and final limitation is that the researcher has never been like some of the participants in this study. To be more precise, she has never been obese herself. Therefore, her interpretation of the subject matter (based on her own personal experience) would have been different if she had been obese. If the researcher had experienced obesity and successfully lost a large amount of weight, it could have positively contributed to the findings and results of the thesis. Perhaps participants would have given more truthful responses and provided the researcher with a higher level of trust.

#### Future Research

From the academic research outlined in the literature review and the results of this study, many suggestions for future research have been brought to light. Although all of the participants in this study benefited from their use of the Internet, it is important to note that there could be people who have not benefited from using the Internet for health information. It would be interesting to interview these individuals to understand their viewpoint and perspective.

The majority of the interviewees were college-aged (20-24) and when discussing how they gained weight, the answer of “college late night eating, drinking, lack of exercise and cafeteria food” appeared as a consistent answer. It would be interesting to conduct a study to determine whether the Internet could serve as a tool to educate these individuals before they even started school at student orientation. Most universities conduct a student orientation prior to the start of the school year, this could be a perfect time for students to listen to an educational seminar on health and nutrition, or watch a video starring the school’s top athlete discussing the

importance of healthy eating. Another option to engage the young college students could be during their first semester of college. A “First Year Experience” (FYE) class is offered at many colleges today teaching students the “ins and outs” of the university. Having a health and wellness component to the course could be beneficial to many students. Furthermore, universities could educate students on the amount of calories in some of the most popular meals purchased on campus and teach them how to eat healthy food on a shoestring budget, utilizing the Internet in order to extract valuable pieces of information. A weekly health focused e-newsletter could be emailed to the entire student body and a study could evaluate the impact.

Having more health education targeted for particular demographics (such as college-aged people) could also be tailored for other specific groups of people, such as older women. During her interview, Jill shared that in her childhood, she played basketball and, when she stopped, she never considered joining a gym or exercising regularly just for her health. At that time, only men exercised and lifted weights and it did not seem “lady-like.” She went on to talk about many other women who grew up like this and are still uneducated on the necessity of exercise, especially pre-menopausal women. From this vantage point, it might prove interesting (1) to identify what mediums of communication (e.g., the Internet, television, the use of motivational speakers, etc.) can be used to educate these people about health matters, (2) to determine whether or not the Internet is an optimal tool to educate various demographic groups, and (3) to find out what demographic group can best benefit from the Internet.

In order to achieve this, the first step consists of operating a type of audience segmentation. It involves identifying the target audience and dividing them into smaller groups for simple access and management. For instance, a population communication strategy would divide the entire population into groups such as teenagers, young adults, middle-aged adults,

male and female, married and single, urban and non-urban, etc. The objective of audience segmentation is to guide the flow of communication towards a certain group and augment the intensity of efforts in a specific direction to obtain high efficiency/success rate. The second step consists of examining the differential communication strategy.

After the audience segmentation is done and after dividing the audience into smaller groups, the researcher could proceed to find out particular characteristics (nodal points) of each group. These nodal points operate as entry points to permeate the group and affect their behavior and attitudes. Because every group would be different from one another, a different communication strategy will be required for each of them. Will it be the Internet for one group, television for another, the use of the motivational speakers for a third, and so forth? Differential communication strategy refers to the guidance of communication efforts tailored to the needs of each group. The goal, of course, is to produce desired outcomes in the way they acquire health-related knowledge (e.g., obesity, overweight) and how they will apply that knowledge in real life.

The connection between the Internet and exercise is another area for further exploration. The Internet has penetrated many areas of today's society and will continue to do so in the future. Interactive tools such as web meetings, video conferences with personal trainers, or group aerobics classes at a gym being led by a celebrity or top-notch fitness guru via an online video stream are some of the ways the Internet could evolve in the future and enhance how it works to motivate people to exercise. Online workout videos being used in someone's home to provide privacy is also another area for future research. People who are shy or feel isolated and embarrassed due to their weight can go online to find help and support in weight loss.

By the same token, how the Internet has affected the physician-patient relationship is another large area open to be explored. The 2007 Harris Poll explained that there is a largely growing number of “cyberchondriacs” who use the Internet to help them have better conversations with their physicians. The study found that 58 percent of adults who have gone online to get health information have discussed this information with their doctors at least once in the last year. Clearly, this has impacted the education of the patients and the types of questions they ask their doctors. Therefore, the Internet is changing the practice of medicine and there are multiple reasons to believe that the influence of the Internet on medical practice will continue to evolve. Another realm for future research would be to explore the relationship between today’s poor economy and the amount of people who are no longer coming to see their doctor for health needs, but visiting the Internet instead. This could start to occur (1) as more people are laid off and no longer have health insurance or (2) because some people may not have the funds to pay a co-pay when they go to their physician’s office.

The Harris Poll also reported that the percentage of adults who felt online health and medical information was “very reliable” has declined from 37 percent in 2005 to 26 percent in 2007. This corresponds with the results from the interviews in which participants said they did not completely trust the Internet to always have the correct answers (especially when referring to medical information or hoaxes such as diet pills or weight loss “quick fixes”). It would be interesting to monitor this trend and evaluate whether U.S. adults start to trust the Internet more, as they have in the past.

The Pew Internet and American Life Project conducted a survey of Internet leaders, activists and analysts to understand their projections of the future for the Internet. It was revealed that they expect major technology “advances as the phone becomes a primary device for online

access, voice-recognition improves, artificial and virtual reality become more embedded in everyday life, and the architecture of the Internet itself improves” (Rainie, 2008, p. 13). They believe that, by 2020, the mobile device will be the primary connection tool to the Internet for most people. With that being addressed, it will be interesting to further understand how the PDA will affect weight loss. A few primitive inventions incorporating the PDA with weight loss information were addressed in this thesis, but it would be interesting to monitor this trend to understand the evolution and impact it will have on health and weight loss.

In the end, monitoring the statistics of U.S. adults starting to use the Internet more and the companies that are putting more information on the web to satisfy demand will only increase usefulness quotient for U.S. citizens. As more people get online and use the information “highway” they will ride that road to success in any area they choose.

All in all, this qualitative research study has proved that although the U.S. adult population is growing more and more obese, there is hope. If used properly, the Internet can be utilized as the educational tool to solve some of these health issues. What the future holds for U.S. adults, their children, and generations to come is that they can be healthier, if they just take the time to care for their bodies. This thesis has enlightened readers about the reality and danger of obesity and overweight in the U.S. adult population and shed light on the idea that the Internet can play the role of our nation’s mass media health savior.

## APPENDIX A: INTERVIEW PROTOCOL



- 1) Please tell me about yourself.
- 2) What kind of health information have you gathered by using the Internet?
- 3) Please tell me about your weight gain/weight loss.
- 4) When did you gain weight and how long did it take you to lose it?
- 5) What inspired you to lose weight?
- 6) How did you use the Internet as an educational tool during your weight loss?
- 7) How did the Internet help you to lose weight?
- 8) What Internet methods were the most beneficial in your weight loss?
- 9) Have you connected with other people (on the Internet) for weight loss support? If so, how?
- 10) Has the Internet ever helped motivate you to exercise or help you to become more active? If so, in what ways?
- 11) What things could be helpful that the Internet does not possess, in terms of weight loss?
- 12) Do you know of any ways in which the Internet could be a detrimental tool in people's efforts to lose weight?
- 13) How do you think the Internet could increasingly play a key role for adult weight loss in the future?
- 14) What else can you add to this overall experience or discussion?

## APPENDIX B: INFORMED CONSENT

**PROJECT TITLE:** THE ROLE OF THE INTERNET AS A TOOL TO AID IN U.S.  
ADULT CONSUMERS' WEIGHT LOSS

**PRINCIPAL** Jaclyn Kirby

**INVESTIGATOR:**

**CONTACT INFORMATION:** (732) 232-3660, [fsukirby@yahoo.com](mailto:fsukirby@yahoo.com)

My name is Jaclyn Kirby and I am a Master's Student in the Nicholson School of Communication at the University of Central Florida. You are being asked to volunteer for a research study. Please read this form and ask any questions that you may have before agreeing to take part in this study.

**The sponsor of the study**

The sponsor of the study is the Nicholson School of Communication at the University of Central Florida. I, Jaclyn Kirby, am the principal investigator.

**Purpose of the Research Study**

The purpose of this study is to discover what positive impact(s) the Internet has on U.S. adult obesity. Most studies on adult obesity have focused on the negative impact(s) and why they gain so much weight and how television (i.e., commercials) impacts their weight. However, examining the positive impact of the Internet is groundbreaking. The Internet can be an educational tool in helping this obesity issue.

**Procedures**

If you agree to be in this study, you will be asked to do the following things. I will use the method of qualitative interviewing. I will ask you to answer general questions about weight loss and how the Internet has impacted you positively. The interview will last 45-60 minutes. An audio-tape recorder will be used to record the interview because I need to transcribe the information that you will give me. Your name will NOT be mentioned. Your participation is confidential. You can use a nickname or pseudonym. .

### **Risks and Benefits of Being in the Study**

The study has no risks involved. If you feel uncomfortable answering my questions, feel free not to answer them.

There are no benefits involved regarding your participation in my study. You may get free pizzas and drinks.

### **Compensation**

Participation in this study is free and no monetary or any type of compensation is given to the participants.

### **Voluntary Nature of the Study**

Participation in this study is voluntary. Your decision whether or not to participate will not result in penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to not answer any question or withdraw at any time. **You must be 18 years of age or older to participate.**

### **Confidentiality**

The records of this study will be kept private. Participants will use pseudonyms. In published reports, there will be no information included that will make it possible to identify the research participant. Research records will be stored securely. I will store the transcriptions of the data and keep these transcriptions safe by locking them into a program file that can only be opened with a password. I will keep the audio-tapes in a private room that has a safe. I will destroy the audio-tapes as soon as I transcribe all the information recorded on those tapes. Only approved researchers (i.e., my thesis advisor) will have access to the records. When the tape recordings are made, only my advisor will have access to them. He will use them for educational purposes. Again, these tapes will be erased as soon as I transcribe the information that you will give me.

### **Audio Taping of Study Activities:**

To assist with accurate recording of participant responses, interviews may be recorded on an audio recording device/video recording device. Participants have the right to refuse to allow such taping without penalty. Please select one of the following options.

I consent to the use of audio recording.

I do not consent to the use of audio recording.

**Contacts and Questions:**

The researcher(s) conducting this study can be contacted at (732) 232-3660 or [fsukirby@yahoo.com](mailto:fsukirby@yahoo.com) (for Jaclyn Kirby, the principal investigator) and (407) 531-5459 or [jmatusit@mail.ucf.edu](mailto:jmatusit@mail.ucf.edu) (for Dr. Jonathan Matusitz, the faculty sponsor). You are encouraged to contact the researcher(s) if you have any questions.

If you have any questions about your rights as a research participant, you may contact the University of Central Florida – Institutional Review Board at (407) 823-3778.

You will be given a copy of this information to keep for your records. If you are not given a copy of this consent form, please request one.

**STATEMENT OF CONSENT**

I have read the above information. I have asked questions and have received satisfactory answers. I consent to participate in the study.

---

Signature

---

Date

## APPENDIX C: PARTICIPANT DEMOGRAPHICS

<b><i>Males:</i></b>	<b><i>Age:</i></b>	<b><i>State:</i></b>	<b><i>Weight Lost:</i></b>	<b><i>Internet Use*</i></b>
1. Ace	25	NJ	~ 20 pounds	4
2. Burns	25	FL	~ 35 pounds	5
3. Jo	20	FL	~ 25 pounds	5
4. Taylor	22	FL	~ 15 pounds	4
<b><i>Females:</i></b>				
5. Bown	25	FL	~ 45 pounds	3
6. Angelica	20	FL	~ 18 pounds	3
7. Jay	24	FL	~ 35 pounds	5
8. May	24	FL	~ 40 pounds	4
9. Mert	24	FL	~ 75 pounds	3
10. Mac	25	FL	~ 33 pounds	4
11. Elle	25	NJ	~ 15 pounds	4
12. Anne	28	NJ	~ 50 pounds	5
13. Jill	56	NJ	~ 28 pounds	2
14. Helen	59	NJ	~ 70 pounds	3
15. Holly	60	NJ	~ 80 pounds	3

~ Denotes “Approximately”

\* Based on a 1-5 likert scale, with 5 being a very high Internet user and 1 being a very low Internet user.

APPENDIX D: IRB APPROVAL





University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Notice of Expedited Initial Review and Approval

From : UCF Institutional Review Board  
FWA00000351, Exp. 10/8/11, IRB00001138

To : Jaelyn M. Kirby

Date : December 11, 2008

IRB Number: SBE-08-05831

Study Title: **The Role of the Internet as a Tool to Aid in U.S. Adult Weight Loss**

Dear Researcher:

Your research protocol noted above was approved by **expedited** review by the UCF IRB Vice-chair on 12/10/2009. **The expiration date is 12/10/2009.** Your study was determined to be minimal risk for human subjects and expeditable per federal regulations, 45 CFR 46.110. The categories for which this study qualifies as expeditable research are as follows:

6. Collection of data from voice, video, digital, or image recordings made for research purposes.
7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The IRB has approved a **consent procedure which requires participants to sign consent forms.** Use of the approved, stamped consent document(s) is required. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

All data, which may include signed consent form documents, must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Advise the IRB if you receive a subpoena for the release of this information, or if a breach of confidentiality occurs. Also report any unanticipated problems or serious adverse events (within 5 working days). Do not make changes to the protocol methodology or consent form before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <http://iris.research.ucf.edu>.

**Failure to provide a continuing review report could lead to study suspension, a loss of funding and/or publication possibilities, or reporting of noncompliance to sponsors or funding agencies.** The IRB maintains the authority under 45 CFR 46.110(e) to observe or have a third party observe the consent process and the research.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 12/11/2008 01:41:05 PM EST

IRB Coordinator

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