

# Alcohol Marketing in the Digital Age

b m s g  
May 2010

Jeff Chester, MSW  
Center for Digital Democracy

Kathryn Montgomery, PhD  
School of Communication  
American University

Lori Dorfman, DrPH  
Berkeley Media Studies Group  
Public Health Institute

## **Acknowledgements**

Support for this research was provided by the Robert Wood Johnson Foundation's Substance Abuse Policy Research Program (grant #65034). The authors appreciate research assistance from Eliana Bukofzer, Cozette Tran-Caffee, Mari D. Gonzalez, Phil Wilbur, and Gary O. Larson. Special thanks to David Jernigan and Jim Mosher for their comments on an earlier draft and to Maria Alaniz for her consultation in the early stages of this project.

Appendix B is excerpted from Frances M. Leslie, Linda J. Levine, Sandra E. Loughlin, and Cornelia Pechmann, "Adolescents' Psychological & Neurobiological Development: Implications for Digital Marketing," Memo prepared for the Second NPLAN/BMSG Meeting on Digital Media and Marketing to Children, Berkeley, CA, June 29-30, 2009, available from <http://digitalads.org/reports.php>.

For questions or information about this report, please contact Jeff Chester, Center for Digital Democracy, [jeff@democraticmedia.org](mailto:jeff@democraticmedia.org) or Lori Dorfman, Berkeley Media Studies Group, [dorfman@bmsg.org](mailto:dorfman@bmsg.org). Download copies of this report from <http://www.digitalads.org/alcohol.php>.

# Alcohol Marketing in the Digital Age

Jeff Chester, MSW  
Center for Digital Democracy

Kathryn Montgomery, PhD  
School of Communication  
American University

Lori Dorfman, DrPH  
Berkeley Media Studies Group  
Public Health Institute

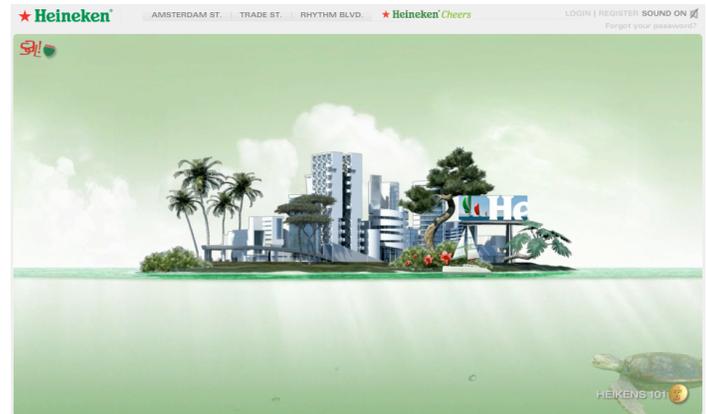
May 2010

## Contents

|   |              |
|---|--------------|
| Acknowledgements.....                                     | inside cover |
| Introduction.....   | 2            |
| A High-definition Media and Marketing Ecosystem.....      | 4            |
| Engagement.....   | 4            |
| Data Collection and Behavioral Targeting.....             | 5            |
| 360-degree Strategy.....                                  | 5            |
| Distribution Platforms.....                               | 6            |
| Social Media.....   | 6            |
| Online Video.....   | 9            |
| Mobile Phones.....  | 11           |
| Immersive Environments.....                               | 12           |
| Target Marketing to African Americans and Latinos.....    | 14           |
| Conclusion.....   | 15           |
| Self-regulation and Regulation.....                       | 16           |
| The Limits of Age Verification.....                       | 17           |
| Recommendations.....                                      | 18           |
| Appendices  |              |
| Appendix A: Health Implications of Marketing Alcohol..... | 20           |
| Appendix B: Adolescent Brain Development.....             | 21           |
| References.....   | 22           |

## Introduction

When leading beer company **Heineken** decided in 2007 to create a marketing campaign that would “energize its brand among Puerto Rican youth,” it recognized that 30-second TV spots and other forms of traditional media would not be the most effective means of reaching its target audience.<sup>1</sup> Instead, the company seized upon the architecture of the online world to build a powerful, interactive “virtual universe” named Heineken City. Working with ad firm JWT, **Heineken** launched the campaign with a “teaser blitz” of promotional materials designed to mimic a “real world” luxury residential development. But when consumers sought further information they learned that the new building complex was really an online “interactive residence.” The price to acquire a piece of this property wasn’t cash—it was attention, time, and engagement with the brand. The size of one’s apartment, as well as the online storage capacity for personal use, depended on points—called “heikens”—earned by playing Heineken-branded games on the site or on Facebook.<sup>2</sup>



Reflecting the growing integration of online and offline media, and the melding of our so-called real-life and digital experiences, the campaign enabled “qualified buyers” to receive “genuine welcome kits” via direct mail, including “keys” to their “apartments” that also served as bottle openers. Heineken City residents inhabited an immersive “world of **Heineken**,” where they could visit virtual jazz and rock music clubs via Rhythm Boulevard, which buzzed with pulsating sounds and digital logos of the brand. Lucky game winners were given free email service, using a **Heineken** domain—@heicity.com. Users who sent a weekly email to the brand could earn “VIP” status to attend parties and special events. As JWT executives explained to *Advertising Age*,

the award-winning campaign generated “10,000 loyal Heineken drinkers but most importantly 10,000 people sending and receiving e-mails with our brand each day.”<sup>3</sup>

Campaigns like this one are transforming the nature of advertising in the digital age. Today, alcohol brands (like other major advertisers) are promoting their products across a wide spectrum of new platforms—from social networks to mobile phones to immersive, virtual communities. This marriage of communications and commerce has benefited from a “perfect storm” of converging developments: the rise of a global generation of Internet-savvy users; the growing capability to access online content at any hour, especially through mobile devices; powerful new digital marketing platforms such as Facebook, Google, and YouTube; and the growing sophistication and power of both online advertising techniques and the companies that offer them. Youth are at the center of the growing digital marketplace. They are especially enthusiastic participants in online social networks such as MySpace and Facebook, which are among the fastest-growing platforms.<sup>4</sup> Seventy-three percent of online youth between the ages of 12 and 17 use social networking sites.<sup>5</sup> “By age 10, roughly half of children own a mobile phone.... By age 12, fully three-fourths of all children have their own mobile phone.”<sup>6</sup> Moreover, these technologies give young people unprecedented freedom to develop entire lives beyond parental monitoring or control.

Like other alcohol companies, **Heineken** subscribes to a self-regulatory code of ethics that includes provisions for limiting exposure to marketing messages by underage youth. The Beer Institute’s “Advertising and Marketing Code” stipulates that alcohol company websites must require disclosures of a user’s birth date at the entrance to their websites, as well as on other “adult-oriented sections” within their sites.<sup>7</sup> Visitors to the website for Heineken City must first provide this information online before entering the “gated community” though a simple math calculation enables anyone under 18 (the legal drinking age in Puerto Rico) to circumvent this barrier. Age verification is one of the principal methods for shielding under-age youth from alcohol advertising in the online media.<sup>8</sup> But in the new digital environment, such mechanisms are not only inadequate but increasingly irrelevant. Marketing is now fully integrated into daily communications and social relationships, not cordoned off in a special category of “advertising.” Digital marketers are able to draw from an arsenal of powerful tools designed to tap deeply into one’s social relationships, and to encourage consumers to play a proactive role promoting the product (and even help create the advertising).<sup>9</sup> Most important, and least well known or understood, is how marketers’ attention is now focused on collecting consumer data that can be used to target advertising more precisely than ever before.<sup>10</sup>

This report surveys some of the major features of the contemporary marketing landscape and their connection to the promotion of alcoholic beverages. One of its goals is to alert stakeholders to some of the emerging practices that demand greater scrutiny. Many of these new interactive techniques may well fly under the radar of policy makers, parents, and public health professionals. If we are to develop timely and appropriate strategies to address concerns about underage drinking—and the use of alcoholic products by society generally—it is critically important that we understand the dimensions and implications of the new marketing paradigm.

In the following pages, we will first discuss key concepts and practices that are guiding the growth of interactive marketing, and then examine four major distribution platforms—social media, online video, mobile networks, and immersive virtual reality sites—with examples of the ways alcohol marketers are using these platforms to spread their message.

## A High-definition Media and Marketing Ecosystem

Major advertisers have coined the phrase “high-definition media and marketing ecosystem” to describe the new media landscape, where consumers are continuously targeted and wooed both online and in the “real” world.<sup>11</sup> Digital marketing is becoming a critically important financial resource for the online industry—with expenditures of almost \$23 billion in 2009 for the U.S. alone.<sup>12</sup> Even in the current economic downturn, experts agree that digital advertising will play a more prominent role in the years ahead, outpacing newspapers, broadcast and cable TV.<sup>13</sup> It is also becoming the most cost-efficient method of reaching and influencing today’s young people and the next generation of consumers.

Across the globe, leading online marketing companies, such as Google and Microsoft, are working with major advertisers, including alcohol companies, to help them harness the power of digital advertising services. In today’s digital marketing system, advertising, editorial content, audience measurement, and content delivery have become intertwined.<sup>14</sup> Among the features that define this new paradigm are three that stand out: engagement, targeted advertising, and a comprehensive, “360-degree strategy” for reaching consumers across the media landscape.

### Engagement



One of the fundamental concepts guiding the growth of interactive marketing is engagement, which market researchers define as “a subtle, subconscious process in which consumers begin to combine the ad’s messages with their own associations, symbols and metaphors to make the brand more personally relevant.”<sup>15</sup> The goal is not simply to expose consumers to a particular product or service, but to create an environment in which they are actually interacting with the brand, “befriending” the product, and integrating it into their personal and social relationships. Engagement also involves generating subconscious associations with brands. The Advertising Research Foundation (whose members include alcohol companies such as

**Anheuser-Busch, E&J Gallo Winery, Miller Brewing, Heineken**, as well as the ad agencies and private research firms that work with alcoholic beverage companies) is developing methods for fostering and measuring such engagement, seeking a better understanding of “the level of involvement, interaction, intimacy and influence a customer has for or with a brand over time.”<sup>16</sup> Alcohol marketers ensure engagement online when they incorporate content the “target audience will want to spend time with,” explains a **Molson Coors Brewing Company** marketing executive.<sup>17</sup> Brands such as **Absolut, Miller, and Guinness** work with digital marketing “branded page development and management” specialists, who help create marketing-connected environments that promote products in many ways, such as “discussion boards, polls and quizzes, videos, photos, links to offsite promotions, and custom developed applications.”<sup>18</sup>

Increasingly, marketers are employing such techniques as functional magnetic resonance imaging (fMRI), eye-tracking studies, galvanic skin response, and electroencephalography (EEG) to hone their engagement strategies for digital

marketing. These efforts draw from the growing field of *neuromarketing*, which is focused on identifying how “specific patterns of brain activation predict purchasing,” the potential “shopping centers in the brain,” and the neurological basis of purchasing.<sup>19</sup> Advertising campaigns are increasingly being assessed not only for exposure, but also for engagement. Many digital ad agencies, moreover, are now being compensated only if they have delivered “relevant, meaningful interactions” between customers and the brand, which can be documented through such measurable online behaviors as entering information, writing reviews, voting, sharing, or playing with “brand-focused content.”<sup>20</sup>

### Data Collection and Behavioral Targeting

Behavioral targeting enables companies to develop unique, long-term relationships with individual customers. Through ongoing data collection and tracking, marketers can create personalized marketing and sales appeals based on a customer’s unique preferences, behaviors, and psychological profile.<sup>21</sup> ID Society, which worked with **Diageo** brands (**Baileys**, **Captain Morgan**, **Crown Royal**, and **Johnnie Walker**), as well as with **Chivas Regal** and **Martell**, helped its clients create Web campaigns that can identify who their “best customers are and how much they spend on the brand.”<sup>22</sup> As Jon Winsell, director, strategic services for ID Society, explained,

We need to assess how often they buy the product and for how many years. For example, a loyal fan may buy 4 bottles of Brand X per year for 5 years. If this is a \$40 product, a single customer (or email address!) is worth \$800. The Holy Grail, in digital strategy, is getting new customers into your loyalty program. A loyalty program will identify your best consumers and keep them close to the brand. Building an online database of 25,000 consumers, for example, will yield a \$20 million asset.<sup>23</sup>

Many campaigns are designed to encourage users to provide personal data, such as mobile phone numbers, email addresses, and personal preferences. For example, Special Ops Media—working for **Proximo’s 1800**

**Tequila**—developed a site for the brand’s campaign and contest inviting artists and others to “design” their own bottle. When users upload their design, there are opportunities for the brand to collect contact information. The site had “more than 10,000 bottle uploads in the first two months,” and 100,000 unique visitors. The brand’s “database contact list grew by 100%.”<sup>24</sup>

### 360-degree Strategy

One of the core features of contemporary marketing, the 360-degree strategy, aims to reach viewers and users repeatedly, wherever they are across the media landscape, both online and off. Marketers design their campaigns to take advantage of people’s constant connectivity to technology, their multi-tasking behaviors, and the fluidity of their media experiences. The growth of residential broadband use, the



emergence of the “mobile Web” and wireless networks, and services such as instant messaging and texting have created an “always-on” media experience. Major media companies are now offering “cross-platform” marketing opportunities, where, in a single buy, advertisers can target customers across a company’s media properties, online and off. Internet-enabled cell phones are fueling the dramatic growth of new services, including mobile video and mobile social networks, many of them advertising-based. Alcohol companies have incorporated the 360 strategy into many of their campaigns. For example, **Smirnoff** conducted “a cross-digital and offline treasure hunt” in Australia, part of “The Smirnoff Secret Experience Party 2008” campaign. In order to gain admission to what was billed as “the biggest free party” in the country, one had to find tickets that had been placed “in the real world across Australia.” Clues were placed on an “underground blog,” mobile sites, Facebook, YouTube, and other online locations; a “GPS ticket tracker” was switched on periodically, with alerts sent out to help drive contestants’ involvement with the campaign.<sup>25</sup>

## Distribution Platforms

Variations on the themes of consumer engagement, data collection, behavioral targeting, and the “always-on” 360-degree strategy play out on four of the latest platforms that shape today’s digital marketplace: 1) social media; 2) online video; 3) mobile networks; and 4) immersive/virtual reality. As we will show in the following pages, alcohol companies are in the forefront of new strategies and techniques designed to harness the power of these platforms.

### Social Media

The dramatic growth and popularity of social networks such as Facebook, MySpace, and others have already transformed the media landscape. Facebook users spent an average of five hours and 12 minutes on the site in July 2009, a dramatic increase from an average of 90 minutes the previous year.<sup>26</sup> On such social media pages, young people create detailed personal profiles, chat or instant message (IM) with their friends, post updates about their “status,” upload pictures, play games alone and with others online, send private messages, post video, and link to other online sites. Not surprisingly, there is increasing interest by marketers in leveraging the viral marketing capabilities of social networks, so that individual consumers actively promote a brand and “displace the marketer as the source of the messaging.”<sup>27</sup> As one marketer put it, “engagement opportunities of social media are deeper than those of traditional mass media and ...the power of social amplification is also much stronger.”<sup>28</sup> Ad spending on social media is predicted to grow from around \$2 billion in 2008 to \$3.49 billion by 2013.<sup>29</sup>

A new generation of companies specializing in social media marketing has emerged in the last several years, promising to assist brands in harnessing the power of these new platforms as marketing tools. Digital marketer Razorfish has trademarked the term *social influence marketing*, which describes the process of “employing social media and social influencers to achieve the marketing and business needs of an organization.”<sup>30</sup> Conversations about brands, products and services are increasingly woven into the interactions among users of social networks, and these conversations can have great influence, even when people are not consciously asking for brand opinions. Marketing messages can be quickly disseminated by digital technology to

networks of friends and acquaintances. When they are forwarded to other recipients within the larger ecology of social networks, their ability to persuade is heightened still further, amplified by what amounts to a new form of social endorsement. Social media monitoring companies enable advertisers to closely follow—and help shape—what consumers are saying about products. A July 2009 Universal McCann (UM) study explains, “every element of digital media is becoming socialized, providing marketers with new ways to engage a target audience like never before.”<sup>31</sup> New measurement tools now permit fine-tune monitoring of a social ad’s impact.<sup>32</sup>

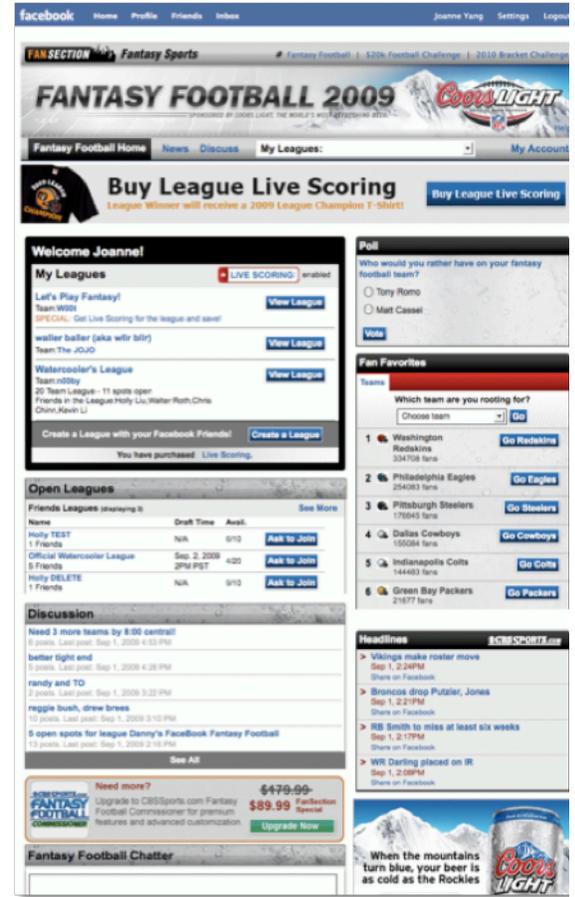
Because members of social networks supply so much information about themselves as part of their profiles, advertisers (including alcohol companies) can target individuals with a great deal of precision. MySpace explains to prospective advertisers that “the freely expressed data in a user’s profile offers marketers more authentic, powerful, and direct targeting...”<sup>33</sup> In its 2008 media kit, both “smoker” and “drinker” were among the targeting categories offered by MySpace. In 2009, if a marketer wanted to target an ad for alcohol-related products on MySpace, the social network could distribute the ad to 607,000 members interested in beer and 1.67 million who have identified themselves with the “drinking” category.<sup>34</sup>

**Molson** is typical of alcohol beverage companies in its effort to use “social media to humanize their brand [and] connect with their fans and customers...,” so it can be the “go-to brewer.”<sup>35</sup> As **Molson’s** social media monitoring company radian6 explains, “They recognized that more and more of their audience were gravitating toward online sites and tools to communicate, both in terms of sharing experiences and communicating with companies—and each other. **Molson** saw first hand how social media was starting to shift consumer expectations from companies online.” The brewer explained that social media helped them “get closer to our drinkers...”<sup>36</sup>

Alcohol brands increasingly rely on the expertise of social media marketing specialists. For example, Vitruve—whose motto is “we make brands social”—offers what it calls a “Social Relationship Management Suite” to help advertisers “fully customize and format their wall posts, including images, branded URLs and additional content blocks. The inclusion of video and audio posts that play within the fan’s news feed offer an effective way for a brand to use multimedia content while driving direct response traffic to their site or Facebook applications... [and it] delivers real-time, rich analytics to monitor brand communication.” Among Vitruve’s clients are **Anheuser-Busch, Captain Morgan, Miller Lite, Diageo,** and **Bud Light.**<sup>37</sup> **Beam Global Spirits and Wine,** similarly, has a “team of agencies who work on social media,” and has used marketing strategies such as “Facebook applications, widgets, Twitter, viral videos and blogger outreach.”<sup>38</sup>

Social media marketing has spawned a host of techniques and software applications that take advantage of the unique properties of these popular platforms. Polls, virtual gifts, free samples, and contests can be quickly created with a goal of “viral sharing” across Facebook and other social sites, and be tracked in real-time.<sup>39</sup> The following are only a few of the many ways that alcohol brands are utilizing social networks:

- Online social games are a growing popular pastime on Facebook and other sites (with approximately 30 million Facebook users playing such games monthly). **Coors** worked with a social gaming company as a sponsor of its WaterCooler's Fantasy Football 2009. In addition to WaterCooler's core demographic of gamers, including college sports fans, the new game is able to "proactively" connect to a user's network of Facebook friends. WaterCooler explained the "social interaction" features of its new "fantasy experience," including the ability to celebrate "wins by posting game scores to profile; Taunting friends/opponents by posting game scores to their profile or talking smack to other teams; Taking trivia [tests] and inviting friends to participate in polls and discussion."<sup>40</sup>



- Brands such as **Beck's** have developed their own blogs featuring "exciting articles that are interesting, funny, unique and that encapsulate our point of view of being 'Different by Choice.'"<sup>41</sup> **Beck's** "The Daily Different" uses a comedian as its "content curator," and users can follow it on Twitter, subscribing to its feed, and view its YouTube channel or access its Facebook page. As part of its social media initiative, **Beck's** also has its own Wikipedia entry (which is important to be visible when users conduct an online search).<sup>42</sup>

- When **Bud Lime** was introduced in the U.S., some Canadians interested in the product created five distinct Facebook groups asking for the product to be introduced there. **Bud Lime's** distributor tracked down 100 members of these groups, sending them product "ambassador kits." This was part of a well-organized rich-media blitz that included a social media contest, YouTube microsite, and a "flashmob" event promoted by the ad agency.<sup>43</sup> (Flashmobs are created when people are quickly mobilized, usually via an online or mobile alert, to take some action or attend an event.)



- Widgets are small, downloadable applications, also called “app-advertisements” for their ability to integrate advertising into online tools and games. These new digital gadgets are being used to help draw users into a beer or spirit brand. **Ciroc Vodka’s** widget enables online users to view a video by the brand’s co-owner, Sean “Puff Daddy” Combs (who partners with beverage-maker **Diageo**) and also obtain drink recipes.<sup>44</sup> **Jim Beam** has made extensive use of widgets, including “a dynamic screensaver for Kid Rock and **Red Stag by Jim Beam™**... [and an] iGoogle Gadget for Knob Creek®.”<sup>45</sup> Bacardi also targeted Facebook users with a **Bacardi Mojito Party** widget. Developed as an entertaining application and game, the widget featured a Mojito Cocktail Calculator and “become a bartender” game. Over 100,000 “adult Facebook members” installed the **Bacardi** widget in the first week of its release.<sup>46</sup>



- LivingSocial.com enables its users to “Review and rate your favorite beers and publish them to your friends; Find beers that are popular among your friends; Easily manage your collection of beers.”<sup>47</sup> The site recently acquired BuyYourFriendDrink.com, where one can buy gift certificates for drinks. But it also hopes to work with the alcoholic beverage industry directly. LivingSocial’s CEO explained that the site could “also be used for marketers in the beer, wine and spirits industries looking for a different product sampling option than sending out liquor reps to bars. A brand could hold an event at a bar and send out invitations and promotional codes online.”<sup>48</sup>

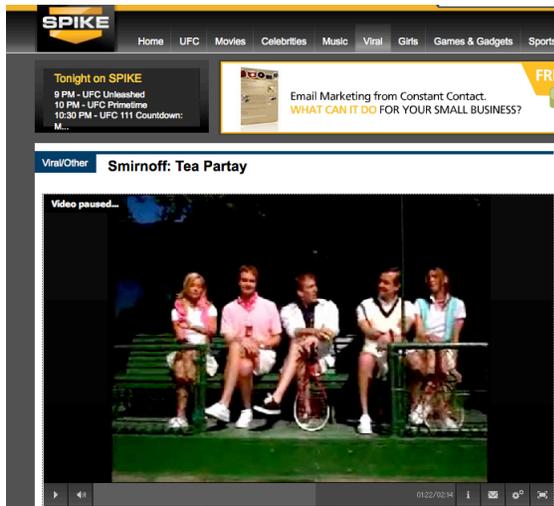
### Online Video

Viewing video online is now a regular routine for almost 117 million Americans, who spend more time with such content than is currently spent on blogs and social networking sites. It is a particularly popular pastime for young people, with 82 percent of older teens routinely sharing their favorite videos through social networks, email, and instant messaging.<sup>49</sup> Ad spending on online video is expected to reach \$4.6 billion in 2013, more than seven times what it was in 2008. The growing role of advertising will help transform the online video medium itself, with long-form content earning most of the ad revenues.<sup>50</sup> YouTube, with 104 million viewers as of August 2009, calls itself the “#1 Entertainment site on the web,” with users spending an average of more than two-and-a-half hours on the site every month. YouTube has developed an array of services designed to help brands (and others) boost their visibility on the site. Already the second-largest search engine (trailing only Google, its parent company), YouTube enables advertisers to purchase keywords that will “trigger your video promotion.” One outcome, the online video site suggests, is that marketers will be able to “drive community engagement,” through a variety of user-initiated “comments, ratings, and sharing.”<sup>51</sup>

The ease with which users can embed YouTube videos on their profile pages in social media sites like Facebook or forward them to friends is what allows a popular video to go “viral.” Marketers seek this phenomenon because then users themselves become

the “brand ambassadors,” and the ad—in the form of a viral video—is more likely to be well received, with more exposures, all at a very low cost to the marketer. Alcohol beverage companies are among those taking advantage of this new advertising platform:

- **Absolut** created a series of viral videos featuring American comedians that was designed to target the “online comedy community.” The campaign was said to have “gained tons of credibility” for the brand and “established ABSOLUT as a presence in the online comedy world.”<sup>52</sup> It generated significant viewership (1,483,527) on YouTube, as well as on MySpace and funnyordie.com.<sup>53</sup>



- **Smirnoff** promoted its Raw Tea with a viral YouTube “Tea Party” video, which appeared to be a music video spoof featuring preppy rich young adults rapping. When the video was put up on the video sharing site in 2006, it was viewed 600,000 times in just ten days and garnered attention on CNN.<sup>54</sup> As of September 30, 2009, the video had just over 5 million views.<sup>55</sup>
- A **Budweiser** commercial featuring two individuals skinny dipping while a crowd of underwater party-goers secretly watches is available for viewing on YouTube under the title “Banned Super Bowl 2007 Bud Commercial.” Typical of such ads, which would never be permitted on mainstream TV, the **Budweiser** video has been viewed nearly 9 million times.<sup>56</sup>
- For its **Icehouse** brand, **Miller Brewing** and its digital marketer created Brewtron, “a fun-loving robot that stars in videos online,” designed to “reach young male drinkers.”<sup>57</sup> Brewtron was featured in viral videos created by Maxim.com and seeded on video-sharing sites. The Brewtron video campaign also was featured on YouTube and a Maxim.com microsite (www.maxim.com/icehouse). And typical of such campaigns, the ad remains available on YouTube and other online video sites.<sup>58</sup>
- Using online entertainment, including videos

and music, to advance its marketing directed at younger consumers, “Uncovered presented by Southern Comfort” is a video series running on Playboy.com, featuring well-known musicians who discuss and play their songs. **Southern Comfort** is aggressively promoting itself by sponsoring online programming offered by NBC, CBS, and Fox, including “Saturday Night Live.” It is also working with online video site Hulu, where viewers can select which **Southern Comfort** ad to view.<sup>59</sup>

### Mobile Phones

The introduction of the iPhone and the ability to add an array of mobile applications have significantly added to the arsenal of marketing techniques. Mobile marketing will

be a critically important venue in the years to come, and is already playing a role in targeted advertising. With the proliferation of mobile devices among youth, and especially within multicultural groups, advertisers have aggressively seized on this new tool.<sup>60</sup> Mobile ad revenues are expected to skyrocket by 2013 to \$3.1 billion, compared to \$160 million in 2008.<sup>61</sup> Both African-American and Hispanic youth are in the forefront of using mobile services to access content—and are considered an important target market by advertisers.<sup>62</sup> Advertising on mobile devices will be especially powerful, since it will be able to target users by combining both behavioral and location data.<sup>63</sup> Mobile advertising will increasingly rely on interactive video and become firmly embedded in “mobile social networks.” Among the mobile campaigns for alcohol brands and products are the following:

- **Jim Beam** has developed mobile Web sites for its various brands. It uses “2D” (Mobile two-dimensional barcode) technology that allows mobile marketing campaigns to be triggered through print advertising via cell phone cameras. The 2D barcodes can trigger an ad, coupon or other message sent to a mobile device or personal computer.<sup>64</sup>

- **Malibu** rum’s free iPhone game “Get Your Island On” explains that you can “Bowl in a rum shack. Bowl on the beach. Bowl in an underground cave or inside an aquarium. We’ve taken the Malibu Bottles off the bar, and made them part of the game.... The controls are simple. Enter your age (tell the truth!), decide where you want to play, if you want to play alone or with a friend, just grab yourself a ball.... You can turn up the volume, and if you like the music, you can download the ring tones at Malibu-rum.com. When you bowl with Malibu® Rum the lanes are always smooth, and the cocktails are always tasty!”<sup>65</sup>



- **Budweiser** created an “Ale Finder” that “shows you the nearest pubs, bars and restaurants with **Bud American Ale** on tap, as well as the closest retail outlets where you can pick up a six-pack.”<sup>66</sup>

**Budweiser’s** digital ad agency that created the application explained that it designed an online application whose goal was to “drive people offline.”<sup>67</sup>



- **Absolut’s** Drinkspiration GPS-enabled application for the iPhone is designed to “help you order or recommend a cocktail to match the moment’s mood, weather, color, time, location, bar vibe and more. An interactive encyclopedia that lets you hook-in to up-to-the-minute global drink trends, and then share what you want via Twitter and Facebook.”<sup>68</sup> The app tells users they can “Just scroll through, select your categories, and Drinkspiration will zero-in on the perfect drink. The choice made, you can easily share it, create top lists and tip off your friends via Facebook and Twitter.”<sup>69</sup> Drinkspiration includes a feature that connects to your Facebook account, enabling you to “share your

drinks with friends. The drinks you are having will be displayed in your status updates or on your wall.”<sup>70</sup>

### Immersive Environments

State-of-the-art animation, high-definition video, and other multi-media applications are spawning a new generation of immersive environments, including interactive games and three-dimensional virtual worlds. Using “dynamic product placement,” ads can be incorporated into a game’s storyline, and programmed to respond to a player’s actions in real time, changing, adding, or updating messages to tailor their appeal to that particular individual.<sup>71</sup> Through “rich media,” the ads themselves are becoming increasingly immersive.

Rich-media advertising offers marketers a state-of-the-art digital service that can trigger a variety of “interactions” or “call to actions,” with banners, videos, mouse-activated “buttons,” instant messaging, email, and other forms of interactive ad tools. Such advertising can “reveal precisely how consumers interact” with a brand, and studies have shown that rich-media ads can “boost key marketing metrics such as brand awareness and purchase intent.”<sup>72</sup> Rich-media ads are also designed to encourage the collection of information from users, through quizzes, polls and surveys. In rich media, micro-level user data can be collected and analyzed, to help determine, for example, “Clicks, Mouseovers, Hotspots, Flyouts, Actions per Location or Section, Interaction Rate, and Site Entry and Exit by Location.”<sup>73</sup>

Alcoholic beverage companies are in the forefront of using these tools, as a rich-media technology ad company recently explained: “...few industries have leveraged the tool to integrate themselves with the very public sports/events sector as the beer industry has.”<sup>74</sup> Examples of the alcohol industry’s use of immersive media include the following:

- **Captain Morgan’s** “Pose Off” campaign was praised for “pushing the envelope with online ad” rich media, featuring “everything from a virtual spokesperson to numerous videos of ‘The Girls Next Door’ stars offering tips on how to mimic the famed **Captain Morgan** pose in a workout video format.”<sup>75</sup>
- **Bud Light** became a sponsor in ESPN’s “Zoom” casual games platform available online and as part of a “free app” for mobile phones. Zoom offers an array of games, including Air Hockey, Craps, Vector Runner, Ping Pong, Day Drive, Trick Hoops Challenge, Speed Back, and Club 300 Bowling, which are integrated with multiple forms of digital advertising.
- For “**Bud Light** Port Paradise Sweepstakes,” potential entrants have to “Visit [www.budlightportparadise.com](http://www.budlightportparadise.com) during the Sweepstakes Period, and follow the online instructions to complete and submit an online entry. (b) Text Message: Use your SMS-enabled mobile phone to text “CRUISE” to shortcode 23377 (BEERS) and you will be automatically entered into the Sweepstakes. Participants must have a mobile phone with text messaging capabilities....”<sup>76</sup>
- In 2007, **Anheuser-Busch** brought its “**Budweiser** Select and Stuff Magazine’s Lingerie Model Search” to Second Life, which featured an MTV celebrity avatar (an online alter-ego created by site visitors or, in this case, the site sponsor) as a judge. In a marketing effort that reflects both the growing role of multiple platforms and the blurring of on- and offline realities, the contest was held at both the “hottest night spots across the US” and the “Select Lounge” in Second

Life.<sup>77</sup> The events were also available as streaming video on the [budweiserselect.com](http://budweiserselect.com) site. A video of the “model search” featuring Second Life avatars and real people was placed on YouTube.<sup>78</sup>

Research conducted by Millions of Us (the technology company responsible for the virtual campaigns of **Diageo**, **Anheuser-Busch**, and other marketers) suggests that virtual marketing is a very powerful medium of persuasion. As the company reports, “It grants unprecedented depth of engagement with consumers.... It taps into an audience that is difficult to reach via other channels [and] ...Virtual merchandizing resonates with youth—and can be *very* cost-effective. Virtual items and other digital assets resonate with Gen Y consumers far more than with older (physical-media-loving) consumers....”<sup>79</sup>

Budweiser Select Lingerie Legends in Second Life  
Millionsofus 41 videos  Subscribe



The various advertising techniques and technologies discussed in this paper do not operate in isolation, of course. More often than not, in fact, advertisers employ a range of approaches, drawing on new media and old to drive home their message. And especially within the new media, where contextual and commercial boundaries are highly permeable, many of the techniques (e.g., engagement, targeted advertising, and the 360-degree strategy) and platforms (e.g., social media, online video, mobile networks, and immersive media) discussed above come into play simultaneously.

Buddy Media, for example, is one of a growing number of companies that specialize in such multi-faceted, cross-platform approaches, developing social media applications for clients that include **Budweiser** and **Bacardi**. At the core of Buddy Media’s business model is the quest to harness the ability of social media to foster deep user interest—“from teens to seniors”—in specific brands.<sup>80</sup> In a presentation the company explained that marketers could “Buy Engagement [and] Earn Loyalty,” through its social media marketing system. The result is “social brand loyalty—the intense adoption of, commitment to and interaction with a brand within a social network.” Buddy Media explained that **Budweiser** “was an early adopter of social media advertising, garnering hundreds of thousands of social brand advocates with the release of Check Your Dudeness on Facebook in the spring of 2008.” **Budweiser’s** goal for the campaign was to “drive widespread adoption of an application that would spread **Bud Light** digital assets across a wide swath of Facebook users.”<sup>81</sup> Buddy Media was hired to “build a viral Facebook app-vertisement to promote the **Bud Light** brand to Facebook users of legal drinking age.” The “virtual gifting technology” used by **Bud Light** was designed to “leverage all social integration points so that when users send a **Bud Light** gift, all of their friends hear about it through Newsfeed and Profile posts.”<sup>82</sup> According to Buddy Media, “The new ‘Fan Page’ gave the application permanent real estate in a place where **Bud Light** brand advocates could send gifts, watch videos, or discuss their favorite beer—with all social gestures promoted through the Facebook Newsfeed. This strategy created a virtual ‘blitz’ of comprehensive messaging that continues to spread across the social graph.”<sup>83</sup> Buddy Media designed these campaigns with “age-gating” features tied to the date of birth in a users Facebook profile.



**Bud Light** used also Buddy Media to help it create an online extension of its “Decode the Dude” television commercial, through “a photo quiz” application developed to “calculate each user’s ‘Dudeness.’ It was designed to help drive “social brand loyalty by spurring intense user interaction,” by allowing users “compare and share their “Dudeness with friends.”<sup>84</sup> This purposefully designed viral campaign was said to help “drive hundreds of thousands of application installs within a six week time period. Buddy Media over-delivered on this goal by 120%, all within 3 weeks.” (The campaign also had an international impact, leading to its “rapid dispersal across the social graph in over 200 countries worldwide.”)<sup>85</sup> In its efforts to engage the users it targeted through Facebook’s social graph, Buddy Media used video and game applications that spread virally through the Facebook community in the U.S. and abroad.

### Target Marketing to African Americans and Latinos

An increasing number of online services now target Hispanics and African Americans. In fact, it has been shown that youth of color consume more media, including digital media, than white youth, giving alcohol marketers greater opportunity to target these groups.<sup>86</sup> Examples include:

- **Ciroc** vodka engaged Sean “Diddy” Combs, a popular African American rap artist, to star in videos advertising the vodka.<sup>87</sup> In launching its new “Dragon Berry” flavored rum, **Bacardi** was “putting its hopes on African-American and Hispanic males ages 25-34, based on their unique flavor palate,” said a spokesperson for the spirits company. Mobile marketing was a critical component for the marketing effort: “Consumers can text ‘dragon’ to a mobile number to access a mobile site that lists various dragon berry drink recipes.” “Digital is the way to go right now,” explained the rum’s brand director. “We not only need to reach the consumer in the store, but before they even walk into the store.” In addition to encouraging “direct texting to consumers to share various Dragon Berry drink recipes,” the campaign also included Facebook and other social marketing strategies.<sup>88</sup>
- Since 2007, **Heineken** has worked with BlackPlanet.com, which bills itself as “the largest Black community online.”<sup>89</sup> It developed a “music search contest” on the site in order to “drive trial and awareness” of its Premium Light brand among “progressive domestic light-beer drinkers.” **Heineken** also created a “Member Choice Awards” on the BlackPlanet site, drawing nearly a million visitors in a month. **Heineken** was added as a “friend” by many of the site’s users as well.<sup>90</sup> **Heineken’s** senior brand manager expressed satisfaction with the campaign’s results, explaining, “This was a targeted audience who had opted to receive messages from the brand.”<sup>91</sup> **Heineken** has developed a wide-ranging



music service online—heinekenredstarsoul.com—using a very video-enriched Web site, with connections to Facebook, MySpace, and YouTube. The site offers access to artists, events, and a sweepstakes (which helps with data collection).<sup>92</sup> **Dos Equis** used mobile marketing, an online photo application, and events marketing in a recent campaign focused on Cinco de Mayo.<sup>93</sup> **Miller** has worked with Yahoo and Telemundo to help drive users to its Millerlitalatino site.<sup>94</sup>

- **Jack Daniels** created a StarMedia Lounge site to “bring the latest in entertainment and cocktails to the Hispanic audience online.” The site targets “the more than 24 million Spanish-speakers” online and has local branches in Los Angeles, Miami, and New York (as well as in Spanish-speaking countries, such as Mexico).<sup>95</sup>

These campaigns represent but a few examples of how alcohol companies are integrating engagement and data collection in 360 degree strategies to reach target markets across social media, online video, mobile, and immersive platforms.

## Conclusion

Digital marketing is by its nature engaging, as our report illustrates, and therefore the consequences of interacting with products and brands in cyberspace might be even more profound than the known risks of exposure to traditional alcohol marketing. Public health advocates and governments are concerned and have been tracking these developments, but there hasn’t been the kind of intense public debate about whether the new techniques are acceptable, particularly when the digital realm is so heavily trafficked by young people.<sup>96</sup> That debate, moreover, should be informed by analyses of how alcohol beverage digital campaigns and Web sites are designed to attract youth, promote user engagement, and convert curious lurkers into brand-committed users. Recent research on adolescent brain development suggests that this age group may be more susceptible to some of the new features of interactive than they are to more traditional forms of advertising.<sup>97</sup> (See Appendix B.)

Online marketing has already become a highly diverse and complicated field—providing new challenges to the public’s health. There is a growing body of research on the nature and potential impact of contemporary marketing practices involving interactive media.<sup>98</sup> But the online advertising sector has largely evolved without significant public analysis or regulatory oversight. It is essential that advocates, public health researchers, and regulators begin carefully tracking and analyzing the digital marketing of alcohol products, especially as it relates to their use by youth.

## Self-regulation and Regulation

Alcohol advertising operates under a voluntary industry self-regulatory regime, with oversight and review by federal regulatory agencies. These voluntary codes are primarily implemented by the two major trade associations covering the two largest segments of the industry. The codes have been revised over the years in response to consumer group pressure and government scrutiny. The Distilled Spirits Council of the U.S. (DISCUS) 2009 “Code Of Responsible Practices for Beverage Alcohol Advertising and Marketing” covers “the Internet and any other on-line communications,” including the use of “product placement” in video games. Its provisions require that alcohol advertising and marketing be placed in “broadcast, cable, radio, print, and internet/digital communications only where at least 70 percent of the audience is reasonably expected to be above the legal purchase age”

(using “reliable, up-to-date audience composition data” from such services as comScore or Nielsen Online). DISCUS-member “controlled beverage alcohol advertising and marketing Web sites” are required to have “age affirmation mechanisms, utilizing month, day and year,” and “contain a reminder of the legal purchase age.”<sup>99</sup> DISCUS sites are also required to provide links to a “responsible decision-making site,” and that “Web sites that contain downloadable advertising or marketing content should include instructions to individuals downloading the content that they should not forward these materials to individuals below the legal purchase age and also should include on the downloadable content a responsible drinking statement where practicable.” Tobacco control advocates have warned that marketing emphasizing the “adult-only” nature of the product serves to entice young people rather than repel them.<sup>100</sup>

The Beer Institute’s revised “Advertising and Marketing Code” was released in January 2006, and applies to “all brewer advertising and marketing materials, including Internet and cyberspace media.” The code addresses how beer marketing content can be portrayed, including that “humor, parody, satire, and all other advertising themes and devices should be readily identifiable as such by reasonable adults of legal drinking age.” Like DISCUS, the Beer Institute code requires placement of marketing and advertising in media where “at least 70% of the audience is expected to be adults of legal drinking age.”<sup>101</sup> The Beer Institute’s placement rules rely on the use of Internet measurement methodologies similar to those of DISCUS.

In 2008, the Federal Trade Commission released the third in a series of reviews of alcohol industry self-regulation and advertising practices. The study relied on public comments, interviews with stakeholders, and data on advertising expenditures (primarily in measured media) by 12 of the major alcohol suppliers in 2005. In its report the FTC commended the industry for complying with its own self-regulatory codes. It also found that only 2% of expenditures were targeted at “other efforts, such as Internet advertising, other digital promotions, and product placement.” But focusing on such expenditures fails to take into account the cost-effectiveness of digital marketing, which can leverage small amounts of money into campaigns capable of maximizing reach exponentially. Since companies are now enlisting their consumers to be “brand ambassadors” by sharing video and posting to social networks like Facebook, exposures is a more accurate metric for determining digital alcohol marketing’s reach than expenditures. The FTC acknowledged that digital advertising “is likely to grow in importance over the coming years,” urging the industry to expand its age-screening and verification processes into new digital areas “such as email and mobile marketing.”<sup>102</sup>

A number of online marketers, such as Google, Facebook, and AOL, have adopted their own self-regulatory codes, including rules regarding alcohol marketing.<sup>103</sup> In November 2008, for example, Facebook announced policies so that “applications can now contain content promoting, facilitating, or referencing the sale of alcoholic beverages—content that was previously prohibited....”<sup>104</sup> Advertisers “referencing, facilitating, promoting or using liquor, beer, wine or other alcoholic beverages” are required to use Facebook’s “Demographic Restrictions feature,” which enables age and location targeting (and is based on the information the social network’s members provide in their profiles).<sup>105</sup> (Brands such as **Miller** and **Absolut** began using Facebook’s demographic restriction feature for marketing when it was first announced in August 2008.)<sup>106</sup> The most recent Facebook policies for alcoholic beverage ads, revised in April 2010, included a stipulation that, “[A]ds must be targeted to people 21 years or older in the U.S.... In the case where a user’s age cannot be determined, the ad cannot be displayed to the user in question. (Does not

apply to applications on Facebook Platform.)”<sup>107</sup> YouTube also permits advertising “for all types of alcohol” in accordance with local law. A number of major alcoholic beverage companies have used the leading online video site to run commercials and other campaigns.<sup>108</sup>

### The Limits of Age Verification

Although social networks such as Facebook claim they are able to restrict alcohol ads from reaching under-age youth, their mechanisms for age verification are, at best, imprecise and faulty. While the FTC has urged “Suppliers who operate websites to promote their brands ...[to] use neutral age-entry screens, complemented by tracking tools to prevent minors from back-clicking to change their birth date once they realize that they have been blocked from an alcohol company website based on their age,” there is little evidence that many companies have implemented this practice.<sup>109</sup>

Facebook’s Advertising Guidelines, for example, include a requirement that alcoholic beverage advertisers restrict their ads to users who are of legal age for drinking, relying on the birthdates provided in Facebook member profiles. If a user’s age cannot be determined, alcohol advertisers are supposed to restrict access by that user.<sup>110</sup> Thus **Jack Daniel’s** “Give A Toast” application on Facebook, “analyzes a user’s Facebook friend list, uses their profiles to automatically screen out any friends under 21, and identifies friends to toast based on their profile information or activities on the network.” It then can automatically rank the friends “into seven categories based on their data: social friend, photogenic friend, musical friend, mysterious friend, all-around friend, active friend or interesting friend.”<sup>111</sup>

The fluid nature of the digital marketing landscape, however, makes it particularly difficult to cordon off specific forms of marketing, especially viral campaigns that are designed to spread themselves broadly through the social graph, and which are often transmitted by community members rather than the company that initiated the campaign. A recent study by the Marin Institute, moreover, found that online age-verification mechanisms worked only about half the time. “Facebook users of all ages,” the report notes, “could become fans, view photos of individuals consuming alcohol, post and read comments, and receive updates.”<sup>112</sup>

As 21 state attorneys general wrote in 2007, in a letter criticizing **Anheuser-Busch’s** age verification system for Bud.TV, “... since you are creating the programming and controlling the internet-based network, not just advertising on it, you have a higher responsibility to ensure that youth are not exposed to the marketing on your site. We fail to see how your use of age verification on the Bud.tv site is a genuine attempt to keep youth from accessing the site’s content.”<sup>113</sup> Alcoholic beverage companies will likely be expanding their role producing and packaging a wide range of content, especially online. This amplifies the need for alcohol marketers to work with public health experts, policymakers, and other interested parties to reexamine how age is currently verified online.

Federal and state policymakers, including the Federal Trade Commission and the Food and Drug Administration, have only recently begun to examine the impact of interactive marketing on consumers. The principal focus at the FTC and in Congress has been the impact on personal privacy of commercial data collection policies, especially behavioral targeting.<sup>114</sup> The FDA’s recent inquiries into Internet-related marketing of drugs and health products illustrate the growing interest of some regulators in the impact of digital marketing practices on health.<sup>115</sup> Alcohol marketers are relying on a flawed system of self-regulation, including an age-verification system

that in many cases is easy to circumvent. Given the array of techniques that appeal to young people, a more comprehensive research effort is now required to assess the scope and nature of digital marketing of alcohol products and their appeal and use by underage youth.

## Recommendations

- 1) The Federal Trade Commission and state attorneys general should investigate the data collection, online profiling, and targeting practices of alcohol beverage companies online, including social media data-mining technologies. The FTC and other regulators need to determine whether alcohol beverage ad targeting is reaching specific young people and their networks, providing a complete picture of the industry's online data collection practices—including whether their privacy policies are accurate. This study should include an examination of Facebook, Google, and YouTube.
- 2) The Federal Trade Commission should collect and publish annually expenditure figures and exposure metrics by leading alcohol companies in the major realms of digital media and advertising, to include social media, online video, mobile campaigns, and immersive environments, a simple extension of what the commission is already doing regarding tobacco marketing expenditures.
- 3) The Federal Trade Commission and state attorneys general should investigate the techniques being used to create ads that are designed to foster “immersive” and subconscious messages, including the use of neuromarketing-related techniques designed to influence or measure subconscious responses.
- 4) The Federal Trade Commission should investigate the adequacy of age-verification mechanisms in the context of contemporary digital marketing of alcohol brands.
- 5) Alcohol industry self-regulatory codes should be strengthened to explicitly ban the collection of psychographic information on underage users of any Web site, whether controlled by alcohol marketers or not.
- 6) Alcohol companies and trade associations should be required to publish annual “transparency reports” of what they are doing in digital and virtual marketing, including search engine marketing (e.g., search terms used, work done on so-called organic search optimization), what data they are collecting about Internet users, and how they are using those data. If these cannot be placed in the public domain for competitive reasons, they should be required to be filed annually with the Federal Trade Commission, which should then summarize them and release the summary results to the public.
- 7) As public health officials have advocated regarding traditional media (e.g., 20 state attorneys general, Institute of Medicine/National Research Council, Center on Alcohol Marketing and Youth), alcohol companies should observe a 15 percent maximum youth audience standard, based on users ages 12 to 20 (the group most at risk of underage drinking), for placing advertising in digital media. (The January 2008 agreement between MySpace and 49 state attorneys general to protect children online, including limitations on tobacco and alcohol advertisements to those under 18 and 21, respectively, might serve as a model in this regard.)<sup>116</sup>

## Appendix A: Health Implications of Marketing Alcohol

Alcohol is associated with liver cirrhosis, injuries, and violence along with 85,000 deaths annually in the U.S.<sup>117</sup> The legal drinking age is 21, yet those underage are not only able to obtain alcohol, but, indeed, many begin a lifelong habit of drinking in their youth. In the U.S., 11 million youth drink alcohol; almost 19 percent of these are considered binge drinkers and 6 percent are heavy drinkers.<sup>118</sup> In 2007 the Surgeon General issued a call to action to address underage drinking, warning that “alcohol remains the most heavily abused substance by America’s youth.”<sup>119</sup>

One of the key factors that influences alcohol use among youth is product marketing. The alcohol industry spends enormous sums on marketing in the U.S. In 2005, the alcohol industry spent \$2 billion—or a quarter of a million dollars every hour, every day—on measured media alone.<sup>120</sup> A study of the effects of youth exposure to alcohol advertising in print, radio, television and outdoors found that the advertising contributed to “increased drinking among youth.”<sup>121</sup> A recent review of 13 longitudinal studies concludes that alcohol advertising and promotion “increased the likelihood that adolescents will start to use alcohol, and to drink more if they are already using alcohol.”<sup>122</sup> Ongoing concern about youth exposure to alcohol marketing has been reflected in the attention paid to self-regulation by the alcohol industry by the Federal Trade Commission (FTC) in 1999, 2003 and 2008.

Many researchers have recognized the importance of understanding the effects of alcohol promotions. Alcohol researchers have conducted content analyses, as well as assessments of exposure to alcohol advertising in different contexts, including magazines, radio, point-of-sale, and on television.<sup>123</sup> Other studies have explored the relationship between exposure to advertising, ownership of promotional items, outdoor advertising near schools, and the effect of alcohol promotion on underage drinking.<sup>124</sup> Studies have also examined the target marketing of minority groups by the alcohol industry.<sup>125</sup> One longitudinal study found that alcohol advertising exposure on television, radio, magazines and billboards among youth ages 15-26 increased youth drinking.<sup>126</sup> A unique feature of this study was the authors’ assessment of exposure, a combination of participant recall of alcohol advertising and the per-capita alcohol advertising spending in markets throughout the U.S. The authors determined that “youth who lived in markets with more alcohol advertising drank more, increased their drinking levels more over time, and continued to increase drinking levels into their late 20s.”<sup>127</sup> This finding is of particular relevance in light of interactive digital marketing, as it reveals that the higher the level of psychological engagement, the bigger the impact. Digital marketing is by its nature engaging, as our report illustrates, and therefore the consequences of interacting with products and brands in cyberspace might be even more profound than the known risks of exposure to traditional marketing. This may be in part because marketers expect consumers to spend more time with digital marketing than they do with traditional advertising.<sup>128</sup>

**Appendix B:**  
**Adolescent Brain Development**  
**Implications for Digital Marketing**

*Excerpted from F. M. Leslie, L. J. Levine, S. E. Loughlin, and C. Pechmann, "Adolescents' Psychological & Neurobiological Development: Implications for Digital Marketing," Memo prepared for the Second NPLAN/BMSG Meeting on Digital Media and Marketing to Children, Berkeley, CA, June 29-30, 2009. Download the memo from <http://digitalads.org/reports.php>.*

Adolescence is a unique developmental period that is characterized by novelty-seeking, impulsivity, social adaptation, emotionality and risky behavior. Research shows that relative to adults and children, adolescents experience heightened emotional arousal and that when they are emotionally aroused they are prone to making poor decisions, especially in terms of overweighting benefits versus costs, and in terms of consuming risky adult-only products such as cigarettes and alcohol. Digital marketing evokes emotional arousal and encourages adolescents to make important consumption decisions under high arousal, particularly decisions about benefits versus costs and adult-only products. Thus digital marketing exacerbates adolescents' already high risk of making poor consumption decisions.

Digital marketing is predominantly social or peer-to-peer and research shows that these are precisely the types of circumstances that evoke high emotional arousal among adolescents.

Moreover, while emotionality reach peak levels in adolescence, the skills needed to control these impulses are in short supply. Such skills do not develop with the onset of puberty but rather improve gradually with age and experience.

This may be because the prefrontal cortex/amygdala/ventral striatum triad which comprises the "shopping center" of the brain is immature among adolescents and causes them to overvalue rewards and benefits and to underestimate risks and costs. In other words, the shopping center of the brain should be used to make rational tradeoffs between benefits and costs, and both the ventral striatum and the prefrontal cortex should be involved in tradeoff analysis. However, these areas and particularly the balance between prefrontal cortex and striatal regions are immature in adolescence. Whereas adults rely on a sophisticated interplay between multiple brain structures to make risk/return tradeoffs, this is simply unavailable to adolescents.

Research has also been conducted on adolescents' marketing susceptibility. It suggests that adolescents are generally knowledgeable about marketers' persuasive motives and tactics and can be taught to protect themselves and resist marketing. Nonetheless, adolescents seem to be more vulnerable to at least some forms of marketing than either adults or children. Many adolescents are uncertain about their ability to transition to adult status and have considerable self-doubt; as a result, they look to advertising models to identify adult-only products and activities that will help them to project a more mature and positive self image and to boost their self esteem.

The research on adolescent psychological and neurobiological development indicates that adolescents are more prone to making poor decisions when emotionally aroused. Since digital marketing purposefully evokes high emotional arousal and urges adolescents to make consumption decisions under high arousal, it likely exacerbates this problem.

## References

- <sup>1</sup> Max Lakin, "Gold Winner (Puerto Rico): 'Heineken City,'" *Advertising Age*, 15 Sept. 2008, [http://adage.com/hispanicawards08/article?article\\_id=130881](http://adage.com/hispanicawards08/article?article_id=130881) (viewed 14 Sept. 2009).
- <sup>2</sup> Heineken City, <http://heinekencity.com/> (viewed 14 Sept. 2009).
- <sup>3</sup> Lakin, "Gold Winner (Puerto Rico): 'Heineken City'"; Hex, <http://www.hexpr.com/main.html>; "Heineken: Heineken City," *Advertising Age*, n.d., <http://adage.com/brightcove/single.php?title=1716439653>; "heinekencity.com," YouTube, 29 Apr. 2008, <http://www.youtube.com/watch?v=yLgExwWXq9o> (all viewed 14 Sept. 2009).
- <sup>4</sup> Jeremiah Owyang, "A Collection of Social Network Stats for 2010," Web Strategy, 19 Jan. 2010, <http://www.web-strategist.com/blog/2010/01/19/a-collection-of-social-network-stats-for-2010/> (viewed 13 Mar. 2010).
- <sup>5</sup> Amanda Lenhart, Kristen Purcell, Aaron Smith, and Kathryn Zickuhr, "Social Media and Young Adults," Pew Internet & American Life Project, 3 Feb. 2010, <http://www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx>; D. A. Williamson, "Kids and Teens: Communications Revolutionaries," *eMarketer*, 2008, [http://www.emarketer.com/Report.aspx?code=emarketer\\_2000539](http://www.emarketer.com/Report.aspx?code=emarketer_2000539) (viewed 23 Mar. 2009).
- <sup>6</sup> Pete Blackshaw, "A Pocket Guide to Social Media and Kids," Nielsen Wire, 2 Nov. 2009, <http://blog.nielsen.com/nielsenwire/consumer/a-pocket-guide-to-social-media-and-kids/> (viewed 16 Mar. 2010).
- <sup>7</sup> Beer Institute, "Advertising and Marketing Code," Jan 2006, <http://www.beerinstitute.org/BeerInstitute/files/ccLibraryFiles/Filename/000000000384/2006ADCODE.pdf>; Beer Institute, "Buying Guidelines for the Implementation of Section 3(c) of the Beer Institute Advertising and Marketing Code," 2007, <http://www.beerinstitute.org/tier.asp?bid=249> (both viewed 14 Sept. 2009).
- <sup>8</sup> A number of sites (e.g., Beck's, Budweiser, Michelob, Crown Royal, Bacardi Silver, Absolut, and Mike's Hard Lemonade) offer visitors an opportunity to amend their age-gate response, should they happen to come up short in their initial entry. Many alcohol sites that initially refuse entry to those under 21 (e.g., Coors, Southern Comfort, Malibu Rum, Captain Morgan, Hennessy Cognac, Corona, and Twisted Tea) will accept modified birthdates after reloading the site. And even those sites (e.g., Miller Lite, Chivas Regal, and Jim Beam) that re-direct underage users to educational sites (e.g., TheCoolSpot.gov, Accept Responsibility.org, and The Century Council) can be accessed simply by re-entering the original URL and submitting a revised birth date.
- <sup>9</sup> Kristen Nicole, "Do Branded Communities Really Work?" *Social Times*, 25 Mar. 2009, <http://www.socialtimes.com/2009/03/powered-roi-report/> (viewed 22 Sept. 2009).
- <sup>10</sup> Center for Digital Democracy and U.S. PIRG. Complaint and Request for Inquiry and Injunctive Relief Concerning Unfair and Deceptive Online Marketing Practices. Federal Trade Commission Filing. November 1, 2006, <http://www.democraticmedia.org/files/pdf/FTCadprivacy.pdf>. Center for Digital Democracy and U.S. PIRG, "Supplemental Statement In Support of Complaint

and Request for Inquiry and Injunctive Relief Concerning Unfair and Deceptive Online Marketing Practices,” Federal Trade Commission Filing, 1 Nov. 2007, [http://www.democraticmedia.org/files/FTCsupplemental\\_statement1107.pdf](http://www.democraticmedia.org/files/FTCsupplemental_statement1107.pdf). Center for Digital Democracy and U.S. PIRG. Complaint and Request for Inquiry and Injunctive Relief Concerning Unfair and Deceptive Mobile Marketing Practices. Federal Trade Commission Filing. January 13, 2009, [http://www.democraticmedia.org/current\\_projects/privacy/analysis/mobile\\_marketing](http://www.democraticmedia.org/current_projects/privacy/analysis/mobile_marketing). EPIC, Center for Digital Democracy, and U.S. PIRG, “In the matter of Google, Inc. and DoubleClick, Inc., Complaint and Request for Injunction, Request for Investigation and for Other Relief, before the Federal Trade Commission,” 20 Apr. 2007, [http://www.epic.org/privacy/ftc/google/epic\\_complaint.pdf](http://www.epic.org/privacy/ftc/google/epic_complaint.pdf). EPIC, Center for Digital Democracy, and U.S. PIRG, “In the matter of Google, Inc. and DoubleClick, Inc., Second Filing of Supplemental Materials in Support of Pending Complaint and Request for Injunction, Request for Investigation and for Other Relief,” 17 Sept. 2007, [http://epic.org/privacy/ftc/google/supp2\\_091707.pdf](http://epic.org/privacy/ftc/google/supp2_091707.pdf) (all viewed 12 Oct. 2009).

<sup>11</sup> See, for example, Edward Landry, Carolyn Ude, and Christopher Vollmer, “HD Marketing 2010: Sharpening the Conversation,” [http://www.boozallen.com/media/file/HD\\_Marketing\\_2010.pdf](http://www.boozallen.com/media/file/HD_Marketing_2010.pdf) (viewed 13 Jan. 2010).

<sup>12</sup> Interactive Advertising Bureau, “IAB Internet Advertising Revenue Report,” Apr. 2010, <http://www.iab.net/media/file/IAB-Ad-Revenue-Full-Year-2009.pdf> (viewed 7 May 2010).

<sup>13</sup> Interactive Advertising Bureau, “IAB Internet Advertising revenue Report Conducted by PricewaterhouseCoopers (PWC),” n.d., [http://www.iab.net/insights\\_research/530422/adrevenue-report](http://www.iab.net/insights_research/530422/adrevenue-report); IDC, “IDC Finds Internet Advertising Keeps Growing Fast Despite Economic Difficulties,” 30 May 2008, <http://idc.com/getdoc.jsp?containerId=prUS21260308> (both viewed 24 Sept. 2009); Mike Sachoff, “Online Ad Spending To Outpace Print In 2010,” *WebProNews*, 8 Mar. 2010, <http://www.webpronews.com/topnews/2010/03/08/online-ad-spending-to-outpace-print-in-2010> (viewed 7 May 2010).

<sup>14</sup> Jeff Chester and Kathryn Montgomery, “Interactive Food & Beverage Marketing: Targeting Children and Youth in the Digital Age,” May 2007, <http://www.digitalads.org/documents/digiMarketingFull.pdf> (viewed 15 Oct. 2008).”

<sup>15</sup> Jim Nail, “The 4 Types of Engagement,” *iMedia Connection*, 13 Oct. 2006, <http://www.imediaconnection.com/content/11633.asp> (viewed 23 Sept. 2009).

<sup>16</sup> Advertising Research Foundation, “Current Members,” <http://www.thearf.org/assets/member-list>; Advertising Research Foundation, Engagement Council, <http://www.thearf.org/assets/engagement-council>; Jose Villa, “What Does Engagement Really Mean?” *Engage: Hispanics*, 20 Aug. 2009, [http://www.mediapost.com/publications/?fa=Articles.showArticle&art\\_aid=111974](http://www.mediapost.com/publications/?fa=Articles.showArticle&art_aid=111974) (all viewed 24 Sept. 2009). Villa’s definition of engagement is from Forrester Research.

<sup>17</sup> Meg Carter, “Vertical Focus: Live Music,” *New Media Age*, 25 June 2009, <http://www.nma.co.uk/features/vertical-focus-live-music/3001718.article> (subscription required).

<sup>18</sup> Context Optional, “Clients,” <http://www.contextoptional.com/portfolio/clients/>; Context Optional, “Branded Community Building,” <http://www.contextoptional.com/services/branded-community-building/> (both viewed 24 Sept. 2009).

<sup>19</sup> B. Knutson, S. Rick, G. E. Wimmer, *et al*, “Neural Predictors of Purchases,” *Neuron* 53 (2007):147-156; A. Dagher, “Shopping Centers in the Brain,” *Neuron* 53 (2007):7-8; R. Dooley, “Brain Scans Predict Buying Behavior,” *Futurelab*, 5 Jan. 2007, [http://blog.futurelab.net/2007/01/brain\\_scans\\_predict\\_buying\\_beh.html](http://blog.futurelab.net/2007/01/brain_scans_predict_buying_beh.html) (viewed 2 Oct. 2008). A recent study noted there were 90 private neuromarketing research firms in the U.S. R. M. Wilson, J. Gaines, R. P. Hill, “Neuromarketing and Consumer Free Will,” *Journal of Consumer Affairs* 42, n. 3 (2008): 389-410.

<sup>20</sup> Brickfish, “You Only Pay for Engagement,” <http://www.brickfish.com/Pages/Company/BFSolutionCPE.aspx> (viewed 12 Sept. 2009).

<sup>21</sup> D. Hallerman, “Behavioral Targeting: Marketing Trends,” *eMarketer*, 2008; I. Khan, B. Weishaar, L. Polinsky, *et al*, “Nothing but Net: 2008 Internet Investment Guide,” 2008, [https://mm.jpmorgan.com/stp/t/c.do?i=2082C-248&u=a\\_p\\*d\\_170762.pdf\\*h\\_-3ohpnmv](https://mm.jpmorgan.com/stp/t/c.do?i=2082C-248&u=a_p*d_170762.pdf*h_-3ohpnmv) (viewed 23 Mar. 2009).

<sup>22</sup> Quoted in Stephen Beaumont, “7 Questions: ID Society’s Director, Strategic Services,” The Beverage Information Group, 16 Oct. 2008, <http://www.bevinfoogroup.com/ME2/dirmod.asp?sid=&nm=&type=Blog&mod=BlogTopics&mid=67D6564029914AD3B204AD35D8F5F780&tier=7&id=7CA5F98839F846E695B66F39C70ABC99> (viewed 13 Jan. 2010).

<sup>23</sup> Quoted in Beaumont, “7 Questions: ID Society’s Director, Strategic Services.”

<sup>24</sup> Special Ops Media, “Mastering the Perfect Mix,” <http://specialopsmedia.com/blog/2008/06/25/mastering-the-perfect-mix/>; Special Ops Media, “Our Work,” <http://www.specialopsmedia.com/?section=work>; Special Ops Media, “The New 1800 Tequila,” <http://specialopsmedia.com/blog/2009/04/14/the-new-1800-tequila/>. For a good overview of the range of digital marketing techniques that can be used by brands, such as viral marketing, “fan evangelization services,” and “behavioral and contextual marketing,” see Special Ops Media, “Services,” <http://www.specialopsmedia.com/?section=services> (all viewed 26 Sept. 2009).

<sup>25</sup> “Smirnoff Experience Secret Party,” <http://judgeshavefeelingstoo.com/smirnoffsecretparty/index.html> (viewed 24 Sept. 2009).

<sup>26</sup> Abbey Klaasen, “What Exodus? Facebook Trumps 20 Sites in Time Spent,” *Advertising Age*, 7 Sept. 2009, [http://adage.com/digital/article?article\\_id=138811](http://adage.com/digital/article?article_id=138811) (viewed 13 Sept. 2009).

<sup>27</sup> Razorfish, “Fluent: The Razorfish Social Marketing Report,” 2009, <http://www.slideshare.net/razorfishmarketing/fluent-the-razorfish-social-influence-marketing-report> (viewed 13 Sept. 2009).

<sup>28</sup> Universal McCann, “Power to the People,” July 2009, p. 37, <http://www.scribd.com/doc/17775421/null> (viewed 17 Sept. 2009).

<sup>29</sup> Debra Aho Williamson, "Social Networking Worldwide: Ad Spending and Usage," *eMarketer*, Mar. 2009, [http://www.emarketer.com/Reports/All/Emarketer\\_2000567.aspx](http://www.emarketer.com/Reports/All/Emarketer_2000567.aspx) (viewed 24 Sept. 2009).

<sup>30</sup> Razorfish, "Fluent."

<sup>31</sup> Universal McCann, "Power to the People."

<sup>32</sup> Brickfish, "Social Network Marketing," <http://www.brickfish.com/Pages/Company/BFPlatform.aspx> (viewed 13 Sept. 2009).

<sup>33</sup> MySpace Media Kit, 2008, personal copy.

<sup>34</sup> MySpace. HyperTargeting Segment List. February 2009. Personal copy. Online media kit. <https://advertising.myspace.com/signup.html>.

<sup>35</sup> Amber Naslund, "Molson: Meeting New Customer Expectations," Power Shift, 21 June 2009, <http://www.radian6.com/blog/178/molson-meeting-new-customer-expectations/> (viewed 13 Sept. 2009).

<sup>36</sup> Naslund, "Molson: Meeting New Customer Expectations."

<sup>37</sup> Vitruve, "Vitruve Launches the First-of-its-Kind Social Relationship Manager for Facebook and Twitter," 11 Aug. 2009, <http://vitruve.com/press-room/38-2009/267-vitruve-launches-the-first-of-its-kind-social-relationship-manager-for-facebook-and-twitter> (viewed 24 Sept. 2009).

<sup>38</sup> "Ways to CommuniKate: Beam's Laufer on Social Media, Brand Fans, Twitter," *Bulldog Reporter*, 28 Aug. 2008, <http://209.196.51.199/ME2/dirmod.asp?sid=2436B6EB9392483ABB0A373E8B823A24&nm=&type=Publishing&mod=Publications%3A%3AArticle&mid=8F3A7027421841978F18BE895F87F791&tier=4&id=EEB35F05088C499586E3AE B1941512B9> (viewed 24 Sept. 2009).

<sup>39</sup> Justin Smith, "EA, Reebok, and Absolut Launch New Facebook Application Campaigns," *Inside Facebook*, 1 Oct. 2008, <http://www.insidefacebook.com/2008/10/01/ea-reebokand-absolut-launch-new-facebook-application-campaigns/>; Context Optional, "Application Development," <http://contextoptional1.com/services/application-development/>; Context Optional, "Branded Community Building," <http://www.contextoptional.com/services/branded-community-building/>; Context Optional, "Social Application Server," <http://www.contextoptional.com/technology/social-application-server/>; Context Optional, "Social Monitoring Console," <http://www.contextoptional.com/technology/social-monitoring-console/> (all viewed 5 Sept. 2009).

<sup>40</sup> Watercooler, Inc., "Social Gaming Gets Sporty With Launch of Watercooler's FanSection Fantasy Football 2009," 31 July 2009, <http://www.marketwire.com/press-release/Watercooler-Inc-1024404.html> (viewed 24 Sept. 2009).

<sup>41</sup> Adam Dooley, "Beck's Pours Itself into New Blog," *Snoo.ws*, 15 Dec. 2008, <http://snoo.ws/2008/12/15/becks-pours-itself-into-new-blog/#more-1468> (viewed 24 Sept. 2009).

<sup>42</sup> “Beck’s Brewery,” *Wikipedia*, [http://en.wikipedia.org/wiki/Beck%27s\\_Brewery](http://en.wikipedia.org/wiki/Beck%27s_Brewery) (viewed 24 Sept. 2009).

<sup>43</sup> Wegert, “In the Spirit of Alcohol Marketing,” *ClickZ*, 23 July 2009, <http://www.clickz.com/3634493>; Limeinvasion Channel, YouTube, <http://www.youtube.com/limeinvasion>; Melita Kuburas, “Bud Light Lime Does the Twist,” *Media in Canada*, 22 May 2009, <http://www.mediaincanada.com/articles/mic/20090522/budlight.html> (all viewed 12 Sept. 2009).

<sup>44</sup> Matthew Nelson, “Puff Daddy Tries Widgets to Promote His Vodka,” *ClickZ*, 26 Feb. 2008, <http://blog.clickz.com/080226-213733.html> (viewed 12 Sept. 2009).

<sup>45</sup> Zezza Network, “Kid Rock Microsite,” <http://www.zezzanetwork.com/#15> (viewed 12 Sept. 2009).

<sup>46</sup> Drew Neisser, “Beverage Brands Make Friends by Learning to LIAISE,” *Chief Marketer*, 12 Jan. 2009, <http://chiefmarketer.com/disciplines/online/0113-social-media-liase/> (viewed 24 Sept. 2009).

<sup>47</sup> LivingSocial: Beer, <http://beer.livingsocial.com/> (viewed 24 Sept. 2009).

<sup>48</sup> Mary Elizabeth Hurn, “LivingSocial Acquires BuyYourFriendsaDrink.com,” *DMNews*, 9 Apr. 2009, <http://www.dmnews.com/LivingSocial-acquires-BuyYourFriendaDrinkcom/article/130451/> (viewed 24 Sept. 2009).

<sup>49</sup> “How People Share Online Video,” *eMarketer*, 28 May 2009, <http://www.emarketer.com/Article.aspx?R=1007111> (viewed 24 Sept. 2009).

<sup>50</sup> “Marketers Eye Online Video for 2009,” *eMarketer*, 9 Jan. 2009, <http://www.emarketer.com/Articles/Print.aspx?1006848> (viewed 7 June 2009).

<sup>51</sup> YouTube, “Partner Watch Advertising: Targeted Placements within Our Partners’ Video Content,” [http://www.gstatic.com/youtube/engagement/platform/autoplay/advertise/downloads/YouTube\\_PartnerWatch.pdf](http://www.gstatic.com/youtube/engagement/platform/autoplay/advertise/downloads/YouTube_PartnerWatch.pdf); “Summer Surge for Online Video,” *eMarketer*, 27 Aug. 2009, <http://www.emarketer.com/Article.aspx?R=1007247> (both viewed 25 Sept. 2009).

<sup>52</sup> “Absolut Vodka,” [http://www.kungsgrillen.se/awards/zach\\_viral1/](http://www.kungsgrillen.se/awards/zach_viral1/) (viewed 26 Sept. 2009).

<sup>53</sup> “A Vodka Movie by Zach Galifianakis, Tim and Eric,” YouTube, 7 Mar. 2008, <http://www.youtube.com/watch?v=5p0QtJMkt1s>; “A Vodka Movie (Part 2) by Zach Galifianakis, Tim and Eric,” YouTube, 5 May 2008, <http://www.youtube.com/watch?v=3EQcvKCFW4&NR=1>; “A Vodka Movie (Part 3) by Zach Galifianakis, Tim and Eric,” YouTube, 13 July 2008, <http://www.youtube.com/watch?v=Nx6LAT-FqxU&feature=related> (all viewed 13 Mar. 2010).

<sup>54</sup> Third Way Advertising Blog, “Smirnoff Tea Partay – Preppies on YouTube,” 16 Aug. 2006, <http://www.thirdwayblog.com/smirnoff/smirnoff-tea-partay-preppies-on-youtube.html> (viewed 30 Sept. 2009).

<sup>55</sup> “Tea Partay,” YouTube, 2 Aug. 2006, <http://www.youtube.com/watch?v=PTU2He2Blc0> (viewed 30 Sept. 2009)

<sup>56</sup> “Banned Super Bowl 2007 Bud Commercial,” YouTube, 10 Feb. 2007, <http://www.youtube.com/watch?v=tnUEcG4iH34> (viewed 30 Sept. 2009).

<sup>57</sup> “Miller Brewing to Reposition Icehouse Beer through Online Ads,” E-Malt, 23 Aug. 2006, <http://www.e-malt.com/NewsSrv.asp?Command=ArticleShow&ArticleID=8770&Template=IndustryNewsTemplate.htm> (viewed 26 Sept. 2009).

<sup>58</sup> Brian Morrissey, “Miller Leans on Web for Icehouse,” 21 Aug. 2006, <http://beeradvocate.com/forum/read/800900>; “Maxim Online: Icehouse Brewtron,” YouTube, 28 Sept. 2006, <http://www.youtube.com/watch?v=TdVZwLY-NQ4>; “Maxim Online: Icehouse Brewtron,” MySpace, 4 Oct. 2006, <http://vids.myspace.com/index.cfm?fuseaction=vids.individual&VideoID=2867767> (all viewed 26 Sept. 2009).

<sup>59</sup> Baar, “Southern Comfort Breaks Out its Digital Media Plan.” Both Hulu and YouTube, for example, work to provide advertisers with a range of services designed to help make their ads more effective. Hulu, “Media FAQ: Advertising,” [http://www.hulu.com/about/media\\_faq#advertising](http://www.hulu.com/about/media_faq#advertising); “Advertise’s Channel,” YouTube, <http://www.youtube.com/user/advertise> (both viewed 26 Sept. 2009).

<sup>60</sup> Center for Digital Democracy, “Groups Calls on FTC to Develop Consumer Safeguards for Mobile Web Commerce,” May 2008, <http://www.democraticmedia.org/node/373>; “Hispanic Teens Set for Strong Mobile Growth,” *RCR Wireless News*, 22 Oct. 2008, <http://juantornoe.blogs.com/hispanictrending/2008/10/hispanic-teen-1.html>; Briabe Media, “Mobile Marketing,” <http://briabemedia.com/>; Jose Villa, “Why Mobile Marketing Works for Multicultural Audiences,” *Mobile Marketer*, 15 Sept. 2008, <http://www.mobilemarketer.com/cms/opinion/columns/1717.html> (all viewed 25 Sept. 2009).

<sup>61</sup> Enid Burns, “U.S. Mobile Ad Revenue to Grow Significantly through 2013,” *ClickZ*, 25 Feb. 2009, <http://www.clickz.com/3632919> (viewed 7 June 2009).

<sup>62</sup> “46% OF U.S. Tweens Use a Cell Phone, Nielsen Reports,” 10 Sept 2008, <http://www.nielsenmobile.com/html/press%20releases/MobileKids.html>; CTIA—The Wireless Association and Harris Interactive, “Teenagers: A Generation Unplugged,” 2008, <http://www.ctia.org/advocacy/research/index.cfm/AID/1148>; Briabe Media, “Mobile Marketing to Multicultural Audiences,” [http://briabemedia.com/documents/articles/Mobile\\_Marketing\\_to\\_Multicultural\\_Audiences.php](http://briabemedia.com/documents/articles/Mobile_Marketing_to_Multicultural_Audiences.php) (all viewed 7 June 2009).

<sup>63</sup> Center for Digital Democracy and U.S. PIRG, “Complaint and Request for Inquiry and Injunctive Relief Concerning Unfair and Deceptive Mobile Marketing Practices,” Federal Trade Commission Filing, 13 Jan. 2009, [http://www.democraticmedia.org/current\\_projects/privacy/analysis/mobile\\_marketing](http://www.democraticmedia.org/current_projects/privacy/analysis/mobile_marketing) (viewed 7 June 2009).

<sup>64</sup> See for example, 3Gvision, “About Mobile Barcodes” <http://www.3gvision.com/AboutMobileBarcodes.html> (viewed on 28 Sept 2009); Giselle Tsirulnik, “Jim Beam Taps Mobile to Introduce Red Stag Bourbon,” *Mobile Marketer*, 28 May 2009, <http://www.mobilemarketer.com/cms/news/messaging/3349.html> (viewed 7 May 2010).

<sup>65</sup> “Malibu Island Bowling,” Apptism, 30 Apr. 2009, <http://www.apptism.com/apps/malibu-r-island-bowling> (viewed 25 Sept. 2009).

- <sup>66</sup> “Bud American Ale Finder,” Apptism, <http://www.apptism.com/apps/bud-american-ale-finder> (viewed 17 Sept. 2009).
- <sup>67</sup> Critical Mass, “Budweiser American Ale,” <http://www.criticalmass.com/> (viewed 17 Sept. 2009).
- <sup>68</sup> Absolut Drinks, “Drinkspiration—Mixology on the Go,” [http://www.absolutdrinks.com/web/Absolut\\_Members.aspx](http://www.absolutdrinks.com/web/Absolut_Members.aspx) (viewed 25 Sept. 2009).
- <sup>69</sup> Absolut Drinks, “Drinkspiration—Mixology on the Go.”
- <sup>70</sup> Absolut, “Absolut Vodka Launches Mobile Drink Application for iPhone and Google Android,” 16 July 2009, <http://www2.prnewswire.com/mnr/absolut/39048/> (viewed 13 Mar. 2010).
- <sup>71</sup> J. Gaudiosi, “Google Gets In-game with Adscape,” *The Hollywood Reporter*, 20 Mar. 2007, [http://www.hollywoodreporter.com/hr/content\\_display/business/news/e3i898ca0de1754206ae43bdb6ee2d9ffd](http://www.hollywoodreporter.com/hr/content_display/business/news/e3i898ca0de1754206ae43bdb6ee2d9ffd); M. Shields, “In-game Ads Could Reach \$2 Bil,” *Adweek*, 12 Apr. 2006, [http://www.adweek.com/aw/national/article\\_display.jsp?vnu\\_content\\_id=1002343563](http://www.adweek.com/aw/national/article_display.jsp?vnu_content_id=1002343563) (both viewed 2 Oct. 2008).
- <sup>72</sup> Atlas Solutions, “Atlas Rich Media,” [http://www.atlassolutions.com/services\\_richmedia.aspx](http://www.atlassolutions.com/services_richmedia.aspx) (viewed 24 Sept. 2009).
- <sup>73</sup> Avenue A Razorfish, “RIAX: Business Success from Your Rich Internet Applications,” n.d., [http://www.vsgoliath.com/razorfish\\_riax.pdf](http://www.vsgoliath.com/razorfish_riax.pdf) (viewed 24 Sept. 2009).
- <sup>74</sup> Adam Shahbaz, “The Best Rich Media Metrics for Your Brand—And Other Verticles?” *iMedia Connection*, 14 Nov. 2007, <http://www.imediaconnection.com/printpage/printpage.aspx?id=17358> (viewed 12 Sept. 2009).
- <sup>75</sup> Wegert, “In the Spirit of Alcohol Marketing.”
- <sup>76</sup> “Bud Light Port Paradise Sweepstakes Official Rules,” <http://budlightportparadise.young-america.com/rules.aspx> (viewed 14 Sept. 2009).
- <sup>77</sup> Millions of Us, “Does Your Avatar Have What it Takes to be a Lingerie Legend?” 20 July 2007, <http://millionsofus.com/blog/2007/07/20/does-your-avatar-have-what-it-takes-to-be-a-lingerie-legend/>; Millions of Us, “Archives for the ‘Lingerie Legends’ Category,” <http://millionsofus.com/blog/category/lingerie-legends/> (both viewed 25 Sept. 2009).
- <sup>78</sup> Millions of Us, “Budweiser Select Lingerie Legends in Second Life,” YouTube, 30 July 2007, [http://www.youtube.com/watch?v=652PJ70ZAys&eurl=http%3A%2F%2Fmillionsofus.com%2Fblog%2Fcategory%2Flingerie-legends%2F&feature=player\\_embedded](http://www.youtube.com/watch?v=652PJ70ZAys&eurl=http%3A%2F%2Fmillionsofus.com%2Fblog%2Fcategory%2Flingerie-legends%2F&feature=player_embedded) (viewed 25 Sept. 2009).
- <sup>79</sup> Millions of Us, “Forrester Consulting: Consumer Engagement in Virtual Worlds, Executive Summary,” n.d., [http://millionsofus.com/forrester/Forrester\\_Consulting.pdf](http://millionsofus.com/forrester/Forrester_Consulting.pdf) (viewed 25 Sept. 2009).

<sup>80</sup> Buddy Media, “Our Work,” <http://www.buddymedia.com/our-work> (viewed 24 Sept. 2009).

<sup>81</sup> *Ibid.*

<sup>82</sup> *ibid.*

<sup>83</sup> *Ibid.*

<sup>84</sup> Groundswell, “Buddy Media’s Bud Light ‘Check Your Dudeness’ Facebook Application,” [http://www.forrester.com/Groundswell/talking/dudeness\\_check.html](http://www.forrester.com/Groundswell/talking/dudeness_check.html) (viewed 24 Sept. 2009).

<sup>85</sup> Buddy Media, “Our Work: Bud Light Check Your Dudeness,” <http://www.buddymedia.com/our-work/bud-light-check-your-dudeness> (viewed 24 Sept. 2009).

<sup>86</sup> Briabe Media, I., “Briabe Media Offers Multicultural Mobile Marketing Assessments for Brands Seeking to Better Connect with Hispanic and African American Customers,” 27 Feb. 2007, <http://oscardmedia.com/article.cfm/id/155226> (viewed 14 Mar. 2010).

<sup>87</sup> See <http://icedotcom.blogspot.com/2008/10/diddy-sinatra-ciroq-vodka-commercial.htm>, (viewed 24 Sept. 2009).

<sup>88</sup> In-store Marketing Institute, “Bacardi ‘Samples’ New Rum Flavor In-Store,” *Shopper Marketing*, <http://www.poptimes.com/article.php?nid=48900> (viewed 7 Mar. 2010).

<sup>89</sup> <http://www.blackplanet.com/> (viewed 7 March 2010).

<sup>90</sup> “Digital Branding—Niche Communities,” *New Media Age*, 3 Apr. 2008, <http://www.nma.co.uk/features/digital-branding-niche-communities/37529.article> (viewed 12 Sept. 2009).

<sup>91</sup> “Digital Branding—Niche Communities.”

<sup>92</sup> Heineken Red Star Soul, <http://heinekenredstarsoul.com/home.php>; “Heineken Red Star Soul,” Facebook, <http://www.facebook.com/HeinekenRedStarSoul>; Heineken USA, “Heineken Launches Heineken Red Star Soul to Showcase Soulful Sounds, Stars of Today and Tomorrow,” 28 Aug. 2006, <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=109&STORY=/www/story/08-28-2006/0004422677&EDATE=> (all viewed 14 Sept. 2009).

<sup>93</sup> “Dos Equis Launches Cinco de Mayo ‘Expedition,’” *BrandWeek*, 24 Apr. 2009, [http://www.brandweek.com/bw/content\\_display/news-and-features/incentive/e3i55fbb4c9063b301d702682373a386de4](http://www.brandweek.com/bw/content_display/news-and-features/incentive/e3i55fbb4c9063b301d702682373a386de4) (viewed 26 Sept. 2009).

<sup>94</sup> “Miller Lite Launches New Hispanic Web Site to Kick Off Gold Cup Program,” *HispanicTips*, 22 May 2007, <http://www.hispanictips.com/2007/05/22/miller-lite-launches-hispanic-site-kick-gold-program/>; “Alcance de Yahoo! En America—Yahoo! Publicidad,” Yahoo! Hispanic Americas, <http://www.yahoopublicidad.com/Hispanoamerica.php> (both viewed 26 Sept. 2009).

<sup>95</sup> “StarMedia and Jack Daniel’s Launch an Exciting Online Cocktail of Exclusive Entertainment,” 9 Feb. 2005,

<http://www.hispanicprwire.com/news.php?l=in&id=13543> (viewed 26 Sept. 2009).

<sup>96</sup> See, for example, European Alcohol Policy Alliance, “Eurocare Welcomes the Swedish Presidency’s Focus on Health Issues and Alcohol,” 3 Aug. 2009, [http://www.eurocare.org/press/newsletter/june\\_july\\_2009\\_\\_5/news\\_from\\_the\\_eu/eurocare\\_welcomes\\_the\\_swedish\\_presidency\\_s\\_focus\\_on\\_health\\_issues\\_and\\_alcohol](http://www.eurocare.org/press/newsletter/june_july_2009__5/news_from_the_eu/eurocare_welcomes_the_swedish_presidency_s_focus_on_health_issues_and_alcohol) (viewed 13 Sept. 2009).

<sup>97</sup> For a discussion of digital marketing and adolescents, see Kathryn C. Montgomery and Jeffrey Chester, “Interactive Food and Beverage Marketing: Targeting Adolescents in the Digital Age,” *Journal of Adolescent Health* 45 (2009) S18-S29.

<sup>98</sup> Montgomery and Chester, “Interactive Food and Beverage Marketing: Targeting Adolescents in the Digital Age.” Berkeley, CA: Berkeley Media Studies Group, 2007.

<sup>99</sup> Distilled Spirits Council of the U.S., “Code Of Responsible Practices for Beverage Alcohol Advertising and Marketing,” Jan. 2009, [http://www.discus.org/pdf/61332\\_DISCUS.pdf](http://www.discus.org/pdf/61332_DISCUS.pdf) (viewed 14 Sept. 2009).

<sup>100</sup> American Cancer Society, “Tobacco Companies Still Getting Kids to Smoke,” ACS News Center, 15 Aug. 2001, [http://www.cancer.org/docroot/NWS/content/NWS\\_1\\_1x\\_Tobacco\\_Companies\\_Still\\_Getting\\_Kids\\_to\\_Smoke.asp](http://www.cancer.org/docroot/NWS/content/NWS_1_1x_Tobacco_Companies_Still_Getting_Kids_to_Smoke.asp) (viewed 6 May 2010).

<sup>101</sup> Beer Institute, “Advertising and Marketing Code,” Jan 2006, <http://www.beerinstitute.org/BeerInstitute/files/ccLibraryFiles/Filename/000000000384/2006ADCODE.pdf>; Beer Institute, “Buying Guidelines for the Implementation of Section 3(c) of the Beer Institute Advertising and Marketing Code,” 2007, <http://www.beerinstitute.org/tier.asp?bid=249> (both viewed 14 Sept. 2009).

<sup>102</sup> Federal Trade Commission, *Self-Regulation in the Alcohol Industry*, June 2008, <http://www.ftc.gov/os/2008/06/080626alcoholreport.pdf> (viewed 24 Sept. 2009).

<sup>103</sup> See, for example, Yahoo, “Policies: Yahoo Display Advertising Guidelines,” <http://adspecs.yahoo.com/policies.php>; Microsoft, “Creative Acceptance Policy Guide,” [http://advertising.microsoft.com/wwdocs/user/en-us/cap/external/external\\_low/index.html](http://advertising.microsoft.com/wwdocs/user/en-us/cap/external/external_low/index.html) (both viewed 14 Sept. 2009).

<sup>104</sup> Nick Gianos, “New Opportunities to Display New Content,” Facebook Developers, 7 Nov. 08, <http://developers.facebook.com/news.php?blog=1&story=165> (viewed 17 Sept. 2009).

<sup>105</sup> Gianos, “New Opportunities to Display New Content”; Facebook, “Demographic Restrictions,” Facebook Developer Wiki, [http://wiki.developers.facebook.com/index.php/Demographic\\_Restrictions](http://wiki.developers.facebook.com/index.php/Demographic_Restrictions); Facebook, “Additional Policies Governing All Applications and Developers,” Facebook Developer Wiki, [http://wiki.developers.facebook.com/index.php/Additional\\_Policies\\_Governing\\_All\\_Applications\\_and\\_Developers#11.\\_Alcohol\\_Content\\_Policy](http://wiki.developers.facebook.com/index.php/Additional_Policies_Governing_All_Applications_and_Developers#11._Alcohol_Content_Policy); Justin Smith, “Facebook Revises Official Policy Toward Alcohol Ads & Content in Apps,” Inside Facebook, 10 Nov. 2008,

<http://www.insidefacebook.com/2008/11/10/facebook-revises-official-policy-toward-alcohol-ads-content-in-apps/> (all viewed 14 Sept. 2009).

<sup>106</sup> Justin Smith, "New App-vertisements from Microsoft, Miller, and Absolut," *Inside Facebook*, 3 Sept. 2008, <http://www.insidefacebook.com/2008/09/03/new-app-vertisements-from-microsoft-miller-and-absolut/> (viewed 26 Sept. 2009).

<sup>107</sup> Facebook, "Facebook Advertising Guidelines," 8 Apr. 2010, [http://www.facebook.com/ad\\_guidelines.php](http://www.facebook.com/ad_guidelines.php) (viewed 7 May 2010).

<sup>108</sup> YouTube, "Ad Policies," [http://www.youtube.com/t/ads\\_content\\_policy](http://www.youtube.com/t/ads_content_policy); Nikki Sandison, "Diageo Denies Targeting Young Drinkers with YouTube Ads," *Brand Republic*, 15 Feb. 2008, <http://www.brandrepublic.com/BrandRepublicNews/News/784289/Diageo-denies-targeting-young-drinkers-YouTube-ads/> (both viewed 14 Sept. 2009).

<sup>109</sup> Federal Trade Commission, *Self-Regulation in the Alcohol Industry*.

<sup>110</sup> Sarah Mart, Jacob Mergendoller, and Michele Simon, "Alcohol Promotion on Facebook," *The Journal of Global Drug Policy and Practice* 3, n. 3 (Fall 2009), <http://www.globaldrugpolicy.org/3/3/1.php> (viewed 14 Mar. 2010).

<sup>111</sup> Karlene Lukovitz, "Jack Daniel's 'Toast' Application Going Strong," *Marketing Daily*, 17 Sept. 2009, [http://www.mediapost.com/publications/?fa=Articles.printFriendly&art\\_aid=113688](http://www.mediapost.com/publications/?fa=Articles.printFriendly&art_aid=113688) (viewed 24 Sept. 2009).

<sup>112</sup> Mart, Mergendoller, and Simon, "Alcohol Promotion on Facebook."

<sup>113</sup> Jeremy Mullman and Ira Teinowitz, "Attorneys General of 21 States Lash Out at Bud.tv Age Checks," *Advertising Age*, 19 Feb. 2007, <http://www.commercialfreechildhood.org/news/budtv.htm> (viewed 15 Sept. 2009).

<sup>114</sup> Federal Trade Commission, "FTC Staff Proposes Online Behavioral Advertising Privacy Principles," 20 Dec. 2007, <http://www.ftc.gov/opa/2007/12/principles.shtm> (viewed 14 Sept. 2009).

<sup>115</sup> Jared A. Favole, "FDA Warns Drug Firms Over Internet Ads," *Wall Street Journal*, 4 Apr. 2009, <http://online.wsj.com/article/SB123879766861188121.html> (subscription required).

<sup>116</sup> Proskauer Rose LLP, "State Attorneys General Announce Agreement with MySpace to Protect Children Online," *Privacy Law Blog*, 15 Jan. 2008, <http://privacylaw.proskauer.com/2008/01/articles/childrens-online-privacy-protect/state-attorneys-general-announce-agreement-with-myspace-to-protect-children-online/> (viewed 6 May 2010).

<sup>117</sup> Centers for Disease Control and Prevention, "Indicators for Chronic Disease Surveillance," *Morbidity and Mortality Weekly Report* 53, n. RR-11 (2004): 21-31.

<sup>118</sup> U.S. Department of Health and Human Services, *The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking* (Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2007), <http://www.surgeongeneral.gov/topics/underagedrinking/calltoaction.pdf> (viewed 22 Sept. 2009).

<sup>119</sup> U.S. Department of Health and Human Services, “Acting Surgeon General Issues National Call to Action on Underage Drinking,” 6 Mar. 2007, <http://www.hhs.gov/news/press/2007pres/20070306.html> (viewed 22 Sept. 2009).

<sup>120</sup> The Center on Alcohol Marketing and Youth at Georgetown University, “Alcohol Marketing and Youth,” April 2007, <http://camy.org/factsheets/index.php?FactsheetID=1> (viewed 22 Sept. 2009).

<sup>121</sup> L. B. Snyder, F. Fleming Milici, M. Slater, H. Sun, and Y. Strizhakova, “Effects of Alcohol Advertising Exposure on Drinking Among Youth,” *Archives of Pediatrics & Adolescent Medicine* 160 (Jan. 2006): 18-24.

<sup>122</sup> P. Anderson, A. de Bruijn, K. Angus, R. Gordon, and G. Hastings, “Impact of Alcohol Advertising and Media Exposure on Adolescent Alcohol Use: A Systematic Review of Longitudinal Studies,” *Alcohol and Alcoholism* 44, n. 3 (January 2009): 229-43.

<sup>123</sup> D. E. Strickland, T. A. Finn, and M. D. Lambert, “A Content Analysis of Beverage Alcohol Advertising. I. Magazine Advertising,” *Journal of Studies on Alcohol and Drugs* 43, n. 7 (July 1982): 655-82; T. A. Finn and D. E. Strickland, “A Content Analysis of Beverage Alcohol Advertising. II. Television Advertising,” *Journal of Studies on Alcohol and Drugs* 43, n. 9 (Sept. 1982): 964-89; D. H. Jernigan, J. Ostroff, C. Ross, and J. A. O'Hara 3rd., “Sex Differences in Adolescent Exposure to Alcohol Advertising in Magazines,” *Archives of Pediatrics & Adolescent Medicine* 158 (July 2004): 629-34; Centers for Disease Control and Prevention (CDC), “Youth Exposure to Alcohol Advertising in Magazines—United States, 2001-2005,” *Morbidity and Mortality Weekly Report* 56, n. 30 (3 Aug. 2007): 763-7; Centers for Disease Control and Prevention (CDC), “Youth Exposure to Alcohol Advertising on Radio—United States, June-August 2004,” *Morbidity and Mortality Weekly Report* 55, n. 34 (1 Sept. 2006): 937-40. Erratum in *Morbidity and Mortality Weekly Report* 55, n. 35 (8 Sept. 2006): 967; Centers for Disease Control and Prevention (CDC), “Point-of-purchase Alcohol Marketing and Promotion by Store Type—United States, 2000-2001,” *Morbidity and Mortality Weekly Report* 52, n. 14 (11 Apr. 2003): 310-3; J. W. Grube and L. Wallack, “Television Beer Advertising and Drinking Knowledge, Beliefs, and Intentions among Schoolchildren,” *American Journal of Public Health* 84, n. 2 (Feb. 1994): 254-9.

<sup>124</sup> R. L. Collins, P. L. Ellickson, D. McCaffrey, and K. Hambarsoomians, “Early Adolescent Exposure to Alcohol Advertising and its Relationship to Underage Drinking,” *Journal of Adolescent Health* 40, n. 6. (June 2007): 527-34; A. C. McClure, S. Dal Cin, J. Gibson, and J. D. Sargent, “Ownership of Alcohol-branded Merchandise and Initiation of Teen Drinking,” *American Journal of Preventative Medicine* 30, n. 4 (Apr. 2006): 277-83; K. E. Pasch, K. A. Komro, C. L. Perry, M. O. Hearst, and K. Farbaksh, “Outdoor Alcohol Advertising Near Schools: What Does it Advertise and How is it Related to Intentions and Use of Alcohol among Young Adolescents?” *Journal of Studies on Alcohol and Drugs* 68, n. 4, (July 2007): 587-96; L. Henriksen, E. C. Feighery, N. C. Schleicher, and S. P. Fortmann, “Receptivity to Alcohol Marketing Predicts Initiation of Alcohol Use,” *Journal of Adolescent Health* 42, n. 1, (Jan. 2008): 28-35.

<sup>125</sup> D. J. Moore, J. D. Williams, and W. J. Qualls, “Target Marketing of Tobacco and Alcohol-related Products to Ethnic Minority Groups in the United States,” *Ethnicity and Disease* 6, n. 1-2 (Winter-Spring 1996): 83-98; M. L. Alaniz and C. Wilkes. “Pro-

drinking Messages and Message Environments for Young Adults: The Case of Alcohol Industry Advertising in African American, Latino, and Native American Communities," *Journal of Public Health Policy* 19, n. 4 (1998): 447-72; N. O. Kwate, "Take One Down, Pass it Around, 98 Alcohol Ads on the Wall: Outdoor Advertising in New York City's Black Neighbourhoods," *International Journal of Epidemiology* 36, n. 5 (Oct. 2007): 988-90.

<sup>126</sup> Snyder, et al., "Effects of Alcohol Advertising Exposure on Drinking Among Youth."

<sup>127</sup> Ibid.

<sup>128</sup> Joseph Jaffe, "Instant Messaging has Potential," *iMedia Connection*, 28 Apr. 2003.

<http://www.imediaconnection.com/global/5728.asp?ref=http://www.imediaconnection.com/content/1059.asp> (viewed 22 Sept. 2009).