

Before the
FEDERAL TRADE COMMISSION
Washington, DC 20580

In the Matter of)
)
A Preliminary FTC Staff Report on) **File No. P095416**
Protecting Consumer Privacy in an Era of)
Rapid Change: A Proposed Framework)
for Businesses and Policymakers)

COMMENTS OF

The Center for Digital Democracy,
American Academy of Child and Adolescent Psychiatry,
American Academy of Pediatrics,
Berkeley Media Studies Group, a project of the Public Health Institute,
Children Now,
Consumer Federation of America,
Consumer Watchdog,
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I. INTRODUCTION AND SUMMARY

The Center for Digital Democracy, by their counsel the Institute for Public Representation, joined by the American Academy of Child and Adolescent Psychiatry, American Academy of Pediatrics, Berkeley Media Studies Group, a project of the Public Health Institute, Children Now, Consumer Federation of America, Consumer Watchdog, David VB Britt, Retired CEO, Sesame Workshop, Ellen Wartella, Kathryn Montgomery, National Policy & Legal Analysis Network to Prevent Childhood Obesity, a project of Public Health Law & Policy, The Praxis Project, Privacy Rights Clearinghouse, Public Good, Public Health Institute, Tamara R. Piety, and World Privacy Forum are pleased that the FTC has sought comment on a proposed framework for protecting consumer privacy in an era of rapid change. Our comments focus on how the framework should be modified to better protect the privacy of adolescents.

The Children’s Online Privacy Protection Act (COPPA) and the FTC rules implementing it spell out specific privacy protections for children under 13 to prevent unfair or deceptive online information collection from or about children. It has been widely acknowledged that special protections for children are needed to “take into account the special vulnerabilities of children, e.g., their inexperience, immaturity, susceptibility to being misled or unduly influenced,

and their lack of cognitive skills needed to evaluate the credibility of advertising.”¹ While COPPA has provided important protections for children, an unintended side effect of the law has been that most providers of online services treat adolescents aged 13 to 17 the same as adults.

We urge that the privacy framework include special protections for adolescents. Although adolescents do not have the same vulnerabilities as young children, they nonetheless differ from adults in several ways that make them more susceptible to unfair or deceptive collection of personal information and digital marketing. Teens spend a great deal of time using digital media for social interactions among their peers. Adolescents develop using social networks, using mobile phones and playing games. This increased use of digital media subjects them to wholesale data collection and profiling of even their most intimate interactions with friends, family, and schools.

Moreover, recent research within the fields of neuroscience, psychology, and marketing has identified key biological and psychosocial attributes of the adolescent experience that may make members of this age group particularly susceptible to interactive marketing and data collection techniques. For example, teens are more prone to risky behavior, to experience anxiety and strong emotions, and to be susceptible to peer pressure. Armed with detailed information from and about teens, marketing can exploit these vulnerabilities.

In fact, websites directed at teens have been found to use more tracking technologies than other websites, and many marketing firms are using sophisticated technologies to track and profile teens. Social networking sites allow advertisers to specifically target teen users based on age, gender, schools, interests and other factors. Mobile phones can be used to track the location

¹ Children’s Advertising Review Unit, *Self-Regulatory Program for Children’s Advertising*, 3 (2009), <http://www.caru.org/guidelines/guidelines.pdf>.

of adolescents, to offer rewards for certain activities – such as visiting a fast food restaurant -- and to send precisely-targeted advertising. Digital gaming also allows for data collection and tracking, as well as targeted advertising.

For these reasons, we urge that the privacy framework explicitly recognize adolescents as sensitive users and to afford them special protections. In implementing “privacy by design,” companies should consider the needs and vulnerabilities of teens. They should address those vulnerabilities by, for example, minimizing the amount of data collected from teens. Data that is collected should be retained for only short periods and should be afforded greater security. Companies should not use data to behaviorally profile teens.

The framework should also provide enhanced choice for adolescents. Privacy notices should be tailored to reach and be understood by teens. All third party data collection, and some kinds of first-party collection, should be “opt-in.” The default setting on teen oriented websites and games should be “Do Not Track.” Teens should also have a convenient and effective way to delete information about themselves. Finally, the Commission should monitor the implementation of the framework and regularly track and report on how companies are collecting and using data from adolescents.

II. ADOLESCENTS HAVE UNIQUE VULNERABILITIES TO DIGITAL MARKETING AND DATA COLLECTION

Interactive marketing methods take advantage of the role that new media plays in the lives of adolescents and their particular psychological vulnerabilities. Teens are using new media for key developmental peer interactions. Meanwhile, they are more prone to risky behavior and less capable of evaluating risk-reward tradeoffs, especially when primed by peer pressures or other anxieties. Adolescents thus have a unique susceptibility to some marketing

and data collection techniques. Techniques which prey on their emotional needs, such as self-consciousness, and which involve their peers, leverage these weaknesses. Digital marketers' promotion of certain images to adolescents, and the use of marketing in a peer context – the context of social, online interactions – attacks precisely these vulnerabilities.

Today's teens are being socialized into a new commercial digital culture, which resonates strongly with many of their fundamental developmental tasks, such as identity exploration, social interaction, and autonomy.² In one survey, the Pew Internet & American Life Project found that “[o]ne of the major reasons why adolescents are such enthusiastic users of social network sites is that the sites give them opportunities to present themselves to a group of peers and then get feedback and affirmation.”³ As danah boyd observes, online networks provide a unique forum whereby youth can negotiate their social relationships, explore their own identities, and form communities. Online environments also grant young people a significant measure of freedom, allowing them to “participate in unregulated publics,” and thus transcend “adult-regulated physical spaces such as homes and schools.”⁴ “Society’s traditional adolescent issues—intimacy, sexuality, and identity—have all been transferred to and transformed by the electronic stage,” note media scholars Kaveri Subrahmanyam and Patricia Greenfield. “Among the hallmarks of the transformation are greater teen autonomy, the decline of face-to-face communication, enhancement of peer-group relations at the possible expense of family relations, and greater teen

² Susan Harter, *Processes Underlying the Construction, Maintenance and Enhancement of the Self-concept in Children*, 3 *PSYCHOLOGICAL PERSPECTIVE ON THE SELF* 45 (1990); Uwe Uhlendorff, *The Concept of Developmental Tasks*, 2 *SOCIAL WORK & SOCIETY* 54 (2004); John Hill, *Early Adolescence: A Framework*, 3 *J. EARLY ADOLESCENCE* 1 (1983); Kaveri Subrahmanyam & Patricia Greenfield, *Online Communication and Adolescent Relationships*, 18 *THE FUTURE OF CHILDREN* 119 (2008).

³ See Amanda Lenhart & Mary Madden, *Teens, Privacy, & Online Social Networks* 13 (2007), available at <http://www.pewinternet.org/Reports/2007/Teens-Privacy-and-Online-Social-Networks.aspx>.

⁴ danah boyd, *Why Youth [heart] Social Networks*, *YOUTH, IDENTITY, AND DIGITAL MEDIA* 119 (2007).

choice.’’⁵ As more adolescents seek out identity formation on the Internet, it becomes incredibly difficult to resist the peer pressure to interact online and thus divulge personal information.⁶

This increased reliance on the Internet subjects adolescents to wholesale data collection and profiling.⁷ The interactive nature of digital technologies makes it possible for market research to be woven into the content of new media, offering marketers the opportunity to remain in constant contact with teens and creating a feedback system for the refinement of marketing techniques.⁸ Revealing information is necessary for even the most basic of social and developmental interactions online. The most insidious data collection that occurs is through surveillance of interactions that teens have with their friends, family, and schools.

Recent research within the fields of neuroscience, psychology, and marketing has identified key biological and psychosocial attributes of the adolescent experience that may make members of this age group particularly susceptible to interactive marketing and data collection techniques.⁹ A number of scholars have challenged the notion that cognitive defenses enable adolescents to resist advertising (particularly in new media) more effectively than younger

⁵ Kaveri Subrahmanyam, Patricia Greenfield & Brendesha Tynes, *Constructing Sexuality and Identity in an Online Teen Chat Room*, 25 J APPL. DEV. PSYCHOL. 651 (2004) available at <http://www.center-school.org/pko/documents/Constructingsexuality.pdf>.

⁶ See LARRY D. ROSEN, ME, MYSPACE, AND I: PARENTING THE NET GENERATION 15 (2007) (describing how “[b]eing on MySpace is almost a given for teens these days” and citing testimonials from adolescents, including: “I am on [MySpace] because everyone I know is on” and “If you aren’t MySpacing then you are a loser”).

⁷ See *infra*, section III.

⁸ For more, see Kathryn Montgomery & Jeff Chester, *Interactive Food and Beverage Marketing: Targeting Adolescents in the Digital Age*, 45 J. ADOL. HEALTH S18 (2009) available at <http://digitalads.org/documents/PIIS1054139X09001499.pdf>.

⁹ Cornelia Pechmann, Linda Levine, Sandra Loughlin, & Frances Leslie, *Impulsive and Self-conscious: Adolescents’ Vulnerability to Advertising and Promotion*, 24 J. PUB. POL’Y & MARKETING, 202 (2005); Frances Leslie, Linda Levine, Sandra Loughlin & Cornelia Pechmann, *Adolescents’ Psychological & Neurobiological Development: Implications for Digital Marketing* (2009) available at http://digitalads.org/documents/Leslie_et_al_NPLAN_BMSG_memo.pdf.

children, and like adults.¹⁰ Adolescent brains are still developing, as “brain regions that underlie attention, reward evaluation, affective discrimination, response inhibition and goal-directed behavior undergo structural and functional re-organization throughout late childhood and early adulthood.”¹¹ These brain changes have been linked to the increased risk taking of adolescents.¹²

Adolescents have their own unique vulnerabilities. Adolescents are more prone to risky behavior than their younger compatriots.¹³ Adolescent risk taking is also greater than that of adults.¹⁴ This may not be due to a lack of education, as adolescents may be equally aware of risks, or even report them to be higher than adults do.¹⁵

Adolescent susceptibility to risky behavior is linked to two factors important in the new media context: peers and other anxieties. The presence and influence of peers can increase risk taking in adolescents.¹⁶ This is a significant finding given the peer and social context of new media. A researcher surveyed adolescents to measure their susceptibility to and strategies for

¹⁰ Sonia Livingstone & Ellen Helsper, *Does Advertising Literacy Mediate the Effects of Advertising on Children? A Critical Examination of Two Linked Research Literatures in Relation to Obesity and Food Choice*, 56 J. Comm. 560 (2006).

¹¹ Deborah Yurgelun-Todd, *Emotional and Cognitive Changes During Adolescence*, 17 CURRENT OPINION IN NEUROBIOLOGY 251 (2007).

¹² Laurence Steinberg, *A Social Neuroscience Perspective on Adolescent Risk-Taking*, 28 DEVELOPMENTAL REV. 78, 92 (2008) available at

<http://www.temple.edu/psychology/lds/documents/ASocialNeurosciencePerspectiveonAdolescentRiskTaking.pdf>.

¹³ Linda Spear, *The Adolescent Brain and Age-Related Behavioral Manifestations*, 24 NEUROSCIENCE AND BIOBEHAVIORAL REVIEWS 417 (2002); Elizabeth Cauffman & Laurence Steinberg, *(Im)Maturity of Judgment in Adolescence: Why Adolescents May Be Less Culpable Than Adults*, 18 BEHAV. SCI. & L. 741 (2000); Laurence Steinberg & Elizabeth Cauffman, *Maturity of Judgment in Adolescence: Psychosocial Factors in Adolescent Decision Making*, 20 LAW & HUM. BEHAV. 249 (1996); Edelgard Wulfert, Jennifer Block, Elizabeth Santa Ana, Monica Rodriguez, & Melissa Colman, *Delay of Gratification: Impulsive Choices and Problem Behaviors in Early and Late Adolescence*, 70 J. PERSONALITY 533 (2002).

¹⁴ *Id.*

¹⁵ Baruch Fischhoff, et al., *Teen Expectations for Significant Life Events*, 64 PUBLIC OPINION QUARTERLY 189 (2000), available at <http://sds.hss.cmu.edu/media/pdfs/fischhoff/teenexpectations.pdf>; Susan Millstein & Bonnie Halpern-Felsher, *Judgments About Risk and Perceived Invulnerability in Adolescents and Young Adults*, 12 JOURNAL OF RESEARCH ON ADOLESCENCE 399 (2002); Susan Millstein & Bonnie Halpern-Felsher, *Perceptions of Risk and Vulnerability*, 31 JOURNAL OF ADOLESCENT HEALTH, supp. 1 10 (2002); Marilyn Quadrel, Baruch Fischhoff, & Wendy Davis, *Adolescent (in)vulnerability*, 48 AMERICAN PSYCHOLOGIST, 102 (1993).

¹⁶ Margo Gardner & Laurence Steinberg, *Peer Influence on Risk Taking, Risk Preference, and Risky Decision Making in Adolescence and Adulthood: An Experimental Study*, 41 DEVELOPMENTAL PSYCHOLOGY 625 (2005).

dealing with perceived risk from online advertising.¹⁷ The author concluded that “given teenagers’ tendencies toward risk taking and experimentation, it is not surprising that teenagers focus more on benefits that marketers may offer, instead of potential risks posed by the loss of privacy.”¹⁸ Data collection and marketing techniques which use viral, or peer techniques will thus have a particular effectiveness with teens.

Another difference between adolescents and children is in adolescents’ emotional experience, which is more volatile and more negative, than that of both children and adults.¹⁹ Adolescents display “more swings in mood, more intense moods, lower or more variable energy levels, and more restlessness” than at other ages.²⁰ Adolescents may also have higher anxiety.²¹ Thus adolescents are susceptible to marketing and data collection techniques that prey on insecurities such as body image, self-consciousness, or as cures for negative emotions. They encounter these techniques throughout their digital lives, and in a range of media.

III. A VARIETY OF DIGITAL TECHNIQUES ARE USED TO MARKET TO AND TRACK ADOLESCENTS

Teens are avid new media users, and thus subjected to a variety of invasive marketing technologies. The marketing and profiling techniques highlighted in CDD et al.’s comments to the 2010 COPPA rule review are even more relevant to teens given their wide and rapid adoption

¹⁷ See Seounmi Youn, *Teenagers’ Perceptions of Online Privacy and Coping Behaviors: A Risk–Benefit Appraisal Approach*, 49 J. BROADCASTING & ELECTRONIC MEDIA 86 (2005).

¹⁸ *Id.* at 104. See also Ben Gervy & Judy Lin, *Obstacles on the Internet*, ADVERTISING AGE, (April 17, 2000), http://adage.com/article?article_id=58719 (describing how adolescents view collection of personal information as a positive trend, so long as they are given a choice and benefit for their loss of privacy).

¹⁹ Christy Buchanan, Jacquelynne Eccles & Jill Becker, *Are Adolescents the Victims of Raging Hormones? Evidence for Activational Effects of Hormones on Moods and Behavior at Adolescence*, 111 PSYCHOLOGICAL BULLETIN 62, 98 (1992).

²⁰ *Id.*

²¹ *Id.*

of technology, and the greater volume of content directed at them.²² Teen sites have been found to use more tracking technologies than other sites, and many sites subject teens to online behavioral profiling. Teens are also subject to privacy invasions and pervasive marketing by social networking, mobile, and gaming technologies. These technologies are omnipresent and unavoidable unless teens wholly disengage themselves from the digital world.

A. Data Aggregation and Advertising Networks Utilize Tracking Technologies and Massive Profile Databases to Target Teens

Marketing firms are using increasingly sophisticated technology to track and model online behavior in order to monetize it through advertising. These tracking technologies are especially prevalent on teen-oriented sites. When compiled, the tracking data can be used to create sophisticated profiles of Internet users. Both content networks, such as those operated by AOL and Yahoo, and independent marketing companies, use these profiles to target advertising to teens. Food and beverage companies use sweepstakes and their own websites to collect data on teens.

A recent investigation by the Wall Street Journal revealed that sites popular with children and adolescents install more tracking technologies than sites aimed at adults.²³ The investigation

examined 50 sites popular with U.S. teens and children to see what tracking tools they installed on a test computer. As a group, the sites placed 4,123 "cookies," "beacons" and other pieces of tracking technology. That is 30% more than were found in an analysis of the 50 most popular U.S. sites overall, which are generally aimed at adults.²⁴

²² Comments of CDD et al., *In the Matter of Request for Public Comment on the Federal Trade Commission's Implementation of the Children's Online Privacy Protection Act*, Project No. P104503 (June 30, 2010), <http://www.ftc.gov/os/comments/copparulerev2010/547597-00046-54855.pdf>.

²³ Steve Stecklow, *On the Web, Children Face Invasive Tracking*, THE WALL STREET JOURNAL (Sept 17, 2010), <http://online.wsj.com/article/SB10001424052748703904304575497903523187146.html>.

²⁴ *Id.*

The investigation also turned up misleading statements by companies selling millions of profiles of teenagers. One claimed to not be offering any teen targeting, when in fact it did:

An executive at a company that installed several of those 131 [tracking] files, eXelate Media Ltd., said in an email that his firm wasn't collecting or selling teen-related data. "We currently are not specifically capturing or promoting any 'teen' oriented segments for marketing purposes," wrote Mark S. Zagorski, eXelate's chief revenue officer. But the Journal found that eXelate was offering data for sale on 5.9 million people it described as "Age: 13-17."²⁵

Profiling and targeting of online teens is pervasive. For example, the AOL Advertising network reaches teens in a variety of online activities – gaming, music, email and instant messaging—and provides a pervasive advertising experience. The AOL Advertising network claims that it has profiles on over 83% of online teens.²⁶ It claims to be able to reach teens on a variety of platforms, and through a variety of methods.²⁷ AOL boasts that teens spend an average of 22 minutes on their network of websites every day, and that more teens visit AOL Advertising sites (18.8 million) than watch the MTV Video Music Awards (16.9 million).²⁸ Further, AOL allows advertisers to target specific teen demographics such as “Active Gamers, Television Watchers or Music Enthusiasts,” teens using specific search terms or parts of sites, and teens “most likely to purchase specific products or brands.”²⁹ AOL also gives advertisers the ability to “target teens on the go” using mobile applications, and create rich-media environments that will immerse teens in “branded environments.”³⁰

Outside of content networks such as AOL’s, behavioral advertising is made possible through tracking technologies, such as cookies, scripts, and web beacons that collect user data.

²⁵ *Id.*

²⁶ *Teen Audience One-Sheet*, AMERICA ONLINE (AOL) (Feb. 10, 2011), <http://advertising.aol.com/sites/default/files/webfm/audience-one-sheets/teens.pdf>.

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

This data can often be tied to individual users. FreshAddress, for example, promises to match name and postal records to “up to 25%” of email or IP addresses.³¹ Put simply, such a system gives website owners and marketers, including owners of teen-targeted sites and advertisements that collect IP address information, the ability to match site visitors to individual names and home addresses.

Among the dozens of online advertising and data aggregation networks, Collective’s AMP Network is one of the largest.³² It currently stores “more audience data than the two largest data exchanges combined.”³³ The AMP Network is a database containing 190 million profiles of Internet users, representing 85% of the U.S. online population, which it compiles and updates continuously from the databases of 35 different online data collection companies.³⁴ Collective, like many of its peers, is able to offer detailed insights into teen markets from this data, such as the fact that teens in Memphis interact with ads at a higher rate than any other demographic, and enables its customers to target advertising by age, demographic, psychographic, and behavioral factors.³⁵

A third-party data aggregator specializing in social media, Lotame, stored profiling data of almost 21 million teens as of 2008, which it collected via online tracking technologies embedded in advertisements on social media sites the service monitors.³⁶ Lotame’s data indicated that teens are more likely than other groups to utilize applications and forums in social

³¹ *Real-time Postal Append*, FRESHADDRESS (Feb. 10, 2011), <http://biz.freshaddress.com/RealTimePostalAppend.aspx>.

³² Press Release, Collective, Collective Releases AMP 3.0 (Nov. 18, 2010) *available at* <http://collective.com/about/press-releases/collective-amp-3>.

³³ *Target Using the Best Audience Data*, COLLECTIVE (Feb. 11, 2011), <http://collective.com/media/trusted-audience-data>.

³⁴ *Id.*

³⁵ *Media*, COLLECTIVE (Jan. 26, 2010), <http://collective.com/media>.

³⁶ *LOTAME ID REPORT: Teenage Users in Social Media*, LOTAME (Oct. 2, 2008), *available at* <http://scotthoffman.typepad.com/files/teens-in-social-media.pdf>.

media, and were also more likely to upload and rate photos and content.³⁷ Lotame's data collection activity also measures and profiles teens' interests and music tastes as expressed through their social media interactions.³⁸ Lotame has audience segments "[b]ased on our experience with hundreds of marketers, thousands of campaigns and billions of measured daily human behaviors."³⁹ One segment is called "Teeny-Boppers."⁴⁰ It is described as "The lifestyles, activities and interests of teens (13-19 years)."⁴¹

Food and beverage companies use many methods including sweepstakes and their own websites to collect user data. Companies can create an interactive virtual presence and community and, by incentivizing consumer involvement through product promotions, obtain detailed data about customers. Sweepstakes that originated before the Web 2.0 boom, such as McDonald's Monopoly promotion, evolved to have a strong online component to further promote the brand.⁴² Other companies, like Coca-Cola, created online promotional programs specifically to leverage the power of online marketing and data collection. The My Coke Rewards program allows the company to create a robust targeting strategy

"especially targeting a teen or young adult audience. They're always on their mobile phones and they spend an inordinate amount of time on the Internet. It's compelling because of the dialogue you can have. Frequently, it's triggered by the consumer, who has clicked on your rich media ad, entered your search term or participated with your brand over a cell phone.... We did some online consumer studies with Yahoo! and Nielsen that determined [that] yes, indeed, an online ad unit can make an emotional connection and encourage consumers to buy more of our products."⁴³

³⁷ *Id.*

³⁸ *Id.*

³⁹ Lotame, *Data Solutions*, <http://www.lotame.com/solutions/datasolutions/>.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *2010 Monopoly Game at McDonald's Official Rules*, MCDONALD'S (Feb. 10, 2010), <http://www.playatmcd.com/Official-Rules.aspx>.

⁴³ Coca-Cola's Carol Kruse did say that despite online tracking, "it's very hard to track the influence of any of our marketing efforts on a purchase decision." She also illustrated how Coca-Cola understood that in the online world, a

A 2009 analysis of 10 popular websites for marketing food and beverages showed all of them using web analytics data collection.⁴⁴ The websites used various data collection techniques such as, Javascript to set cookies;⁴⁵ collecting data via flash applications;⁴⁶ collecting user log-ins, email addresses and zip codes;⁴⁷ and collecting data from social networking sites.⁴⁸ In turn, these tracking technologies allow food marketers to target and deliver ads to consumers, as well as generate clear profiles of their most desirable and susceptible audiences. A study of cereal companies' Internet marketing found "several brands that aggressively use a variety of digital marketing practices to advertise to children and adolescents, including child-targeted websites, banner advertising on other (i.e., third party) websites, and social media marketing."⁴⁹ The survey also found 22 cereal brands with Facebook fan pages.⁵⁰ As indicated above, these pages allow marketers to collect information from the Facebook profiles of their fans, to target ads to the friends of their fans, and to create viral messages on the Facebook "feeds" of their fans.⁵¹

B. Social Networks Provide Advertisers and Third Parties with Powerful Profiling and Marketing Tools

The emergence of social networks through the last decade has proven a boon to advertisers. These networks can provide and utilize detailed information on their users to create

brand had to be present simultaneously on multiple platforms: "Take Sprite. We have the Sprite.com Web site. We have the Sprite Yard, which is a mobile program. Sprite is part of MyCokeRewards.com. And we have a Facebook page with an app, Sprite Sips. It doesn't matter whether the experience happens on the Sprite Web site, on Facebook or on a cell phone." Brian Quinton, *Coke's Kruse Control*, PROMO MAGAZINE, (Feb. 1 2008), http://promomagazine.com/interactivemarketing/cokes_kruse_control_coca_cola_interactive_0201/.

⁴⁴ Daniel Meredith & Sascha Meinrath, *NPLAN/BMSG Meeting Memo: Data Collection Techniques on Selected Websites*, Berkeley Media Studies Group (June 30, 2009), <http://digitalads.org/reports.php>.

⁴⁵ *Id.* at 1.

⁴⁶ *Id.* at 3.

⁴⁷ *Id.* at 5.

⁴⁸ *Id.* at 7.

⁴⁹ CEREAL FACTS: EVALUATING THE NUTRITION, QUALITY AND MARKETING OF CHILDREN'S CEREALS, RUDD CENTER FOR FOOD POLICY AND OBESITY 38 (2009) available at http://www.cerealfacts.org/media/Cereal_FACTS_Report.pdf.

⁵⁰ *Id.*

⁵¹ *Pages*, FACEBOOK (Feb. 13, 2011), <https://www.facebook.com/pages/learn.php>.

highly targeted advertising. Significant privacy problems arise as social sites share user information with applications and partner websites. Further, companies can aggregate the data from multiple social networks and online sources to identify and target individuals beyond a mere profile. There are also social networks aimed directly at teens, designed to immerse them in an advertising and branding environment. As the dominance of social networks as a tool for advertising and profiling is increasing, teens are becoming a prime target of their marketing efforts.

Social networking sites are fast becoming the favored means for profiling and targeting teens, and marketers are projected to spend over \$3.1 billion on them in the U.S. this year.⁵² A leading social network, Facebook, is responsible for \$2.2 billion of that sum.⁵³ Facebook allows advertisers to target users by various factors derived from their online profile.⁵⁴ Some of the targeting factors currently available are age, exact birthday, relationship status, and gender.⁵⁵ Individuals can also be targeted based on their specific schools and workplaces, and their expressed likes and interests.⁵⁶ Facebook allows further targeting based on “connections,” allowing application developers and administrators of groups, pages, and events to target and exclude those who are connected to their sites.⁵⁷ Finally, leveraging peer pressure, advertisers can target “friends” of their connections.⁵⁸

Social media sites are also able to determine the identity of anonymous images through advanced facial recognition software. For example, Facebook now subjects tagged user photos

⁵² *Worldwide Social Network Ad Spending: 2011 Outlook*, EMARKETER (Feb. 13, 2011), http://www.emarketer.com/Report.aspx?code=emarketer_2000757.

⁵³ *Id.*

⁵⁴ *Help Center: Ads Targeting Options*, FACEBOOK (Feb. 13, 2011) <https://www.facebook.com/help/?page=863>

⁵⁵ *Reach and Targeting: Reach Real People with Precise Targeting*, FACEBOOK (Feb. 13, 2011), https://www.facebook.com/adsmarketing/index.php?sk=targeting_filters.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

to its facial recognition software, which automatically searches through profiles to add identification tags to currently ‘anonymous’ photos.⁵⁹ Google’s Picasa software utilizes similar technology to identify untagged faces in photo albums, as do both Microsoft’s Windows Live Essentials and Apple’s iPhoto, and all three have the ability to upload to Facebook.

Social networks now extend their reach beyond their sites – gathering information from user interactions with other online media. Facebook’s “Social Plugins” allow it to detect what Facebook members are doing on other websites,⁶⁰ and allow it interact with 250 million people on other sites.⁶¹ When a website serves up web bugs on third party pages, such as the iconic “Like” button, that website can gather information about the user’s visit to that third party page. Social network sites can then tie that site visit to the information they’ve already collected about that user. Recently, Facebook began subjecting its users to “Instant Personalization” by sharing users’ names, profile pictures, gender, connections, and other information with partnered sites, unless users specifically opt-out of the program.⁶²

Facebook also allows businesses to use its social network to build and monetize online communities. Users can log in to third party sites using their Facebook identities.⁶³ PlumWillow utilizes this ability to provide a social shopping network for teen girls. Its founder claims the site will drive revenue through brand interaction:

"We know the girl; we know the type of jeans she likes because she's built closets with us. We also know the jeans her friends have bought. We also know the jeans the community has matched with that shirt. At the moment she clicks on jeans, on a real-time basis, we'll be able to

⁵⁹ Justin Mitchell, *Making Photo Tagging Easier*, FACEBOOK (Dec. 15, 2010), <http://blog.facebook.com/blog.php?post=467145887130>.

⁶⁰ *Social Plugins*, FACEBOOK (Feb. 13, 2011), <http://developers.facebook.com/plugins>.

⁶¹ *Press Room: Statistics*, FACEBOOK (Feb. 13, 2011), <https://www.facebook.com/press/info.php?statistics>.

⁶² *Instant Personalization*, FACEBOOK (Feb. 13, 2011), <http://www.facebook.com/instantpersonalization>.

⁶³ *Authentication*, FACEBOOK (Feb. 13, 2011), <http://developers.facebook.com/docs/authentication>.

offer her suggestions...companies will pay us to reach the girl just when she exposes her intent that she's looking for jeans."⁶⁴

Social networks also allow the creation and monetization of third-party applications on their sites, and provide them not only with the means to build a community, but also the ability and means to track and profile users. Facebook reports that it has 2.5 million app developers and that 20 million apps are installed each day.⁶⁵ These apps have access to user profile information – “your and your friends’ names, profile pictures, gender, user IDs, connections, and any content shared using the Everyone privacy setting” – as well as age and location.⁶⁶ Recently, Facebook announced that applications would be permitted to access telephone numbers and street addresses, but stopped the program in the face of overwhelming public opposition.⁶⁷ The Wall Street Journal reported that popular applications were transmitting certain personal identifying information to advertisers.⁶⁸ Advertising and profiling networks can combine this identifying data with data that Facebook already makes public to collect names and pictures of individuals.

Social network data can be aggregated and combined by third parties and resold. Rapleaf, which currently provides over 400 million detailed profiles to the public and advertisers targeting narrowly defined audiences, including teens, is an example.⁶⁹ The company is able to link users’ information, including names, email addresses, and income level, to Facebook, Flickr, Friendster, LinkedIn, Twitter, Pandora, Wordpress, MySpace, Bebo, Tribe, Livejournal, Yelp,

⁶⁴ Joan Verdon, *Social Network for Teen Girls Focuses on Shopping*, LA TIMES (Jan. 24, 2011), <http://articles.latimes.com/2011/jan/24/business/la-fiw-adv-teens-socialnetwork-1229-20110124>.

⁶⁵ *Press Room: Statistics*, FACEBOOK (Feb. 13, 2011), <https://www.facebook.com/press/info.php?statistics>.

⁶⁶ *Facebook’s Privacy Policy*, FACEBOOK (Feb. 13, 2011), <https://www.facebook.com/policy.php>.

⁶⁷ Jeff Bowen, *Platform Updates: New User Object fields, Edge.remove Event and More*, FACEBOOK (Jan. 14, 2011), <http://developers.facebook.com/blog/post/446>.

⁶⁸ Emily Steel & Geoffrey Fowler, *Facebook in Privacy Breach*, THE WALL STREET JOURNAL (Oct. 18, 2010), <http://online.wsj.com/article/SB10001424052702304772804575558484075236968.html>.

⁶⁹ David Goldman, *Rapleaf is Selling Your Identity*, CNNMONEY.COM (Oct. 21, 2010), <http://money.cnn.com/2010/10/21/technology/rapleaf/index.htm>.

and Amazon accounts in order to provide highly detailed profiles.⁷⁰ Rapleaf recently came under fire when the Wall Street Journal reported that the company obtained Facebook users' IDs from many of the social network's apps—including Zynga Game Network's FarmVille. FarmVille is used by over 59 million people, about 15% of which are 13-17 years old.⁷¹ Rapleaf sold the information to advertisers in conjunction with its own user information database.⁷²

Some online social communities and social games, including highly immersive “virtual worlds,” are aimed directly at the teen market. These social games are projected to generate \$274 million this year, and \$417 million next year – and that represents only the marketing expenditures and not virtual goods purchased in-game, an even larger revenue stream.⁷³

Mindspark Advertising operates several such communities, including Zwinky, an interactive virtual community where teens socialize and play games through stylized avatars, and GirlSense, a fashion and ‘dress-up games’ social community for girls.⁷⁴ Mindspark boasts to advertisers of Zwinky's reach—over 23 million registered users (about half of which are teens)—and claims that “nowhere else can you get access to this many teens in such an effective, entertaining and engaging way.”⁷⁵ With Zwinky, “the marketing opportunities are endless” as teens on the site look for “new ways to be entertained and express themselves.”⁷⁶ GirlSense, with 14 million registered users (47% of which are teens and 33% pre-teens), “offers hundreds of advertising

⁷⁰ *Id.*

⁷¹ Susan Su, *Who's Using Facebook's Top Apps? Demographic Data Indicate Diverse Audiences*, INSIDE FACEBOOK (June 1, 2010), <http://www.insidefacebook.com/2010/06/01/whos-using-facebooks-top-apps-demographic-data-indicate-diverse-audiences>.

⁷² Emily Steel & Geoffrey Fowler, *Facebook in Privacy Breach*, THE WALL STREET JOURNAL (Oct. 18, 2010), <http://online.wsj.com/article/SB10001424052702304772804575558484075236968.html>.

⁷³ *Worldwide Social Network Ad Spending: 2011 Outlook*, EMARKETER (Feb. 13, 2011), http://www.emarketer.com/Report.aspx?code=emarketer_2000757.

⁷⁴ *Zwinky*, MINSARK ADVERTISING (Feb. 13, 2010), <http://www.mindsparkadvertising.com/sales/websites/zwinky/index.shtml>; *GirlSense*, MINDSPARK AVERTISING (Feb. 13, 2010), <http://www.mindsparkadvertising.com/sales/websites/zwinky/index.shtml>.

⁷⁵ *Id.*

⁷⁶ *Id.*

opportunities that are certain to make a big impact on this engaged audience.”⁷⁷ “The creative environment fosters interaction with your brand and products, and enables them to have long-lasting effects on the community as the girls continue to auction, exchange and display your branded goods long after your campaign ends.”⁷⁸ The trend toward providing immersive brand advertising is continually pushing companies to innovate their data collection techniques.

C. Mobile Phones Collect Location Data to Drive Hyper-Target Advertising to Teens

Mobile phones have rapidly evolved over the past decade, and with that evolution has come rapid adoption by teens. ‘Smart phone’ technologies, such as mobile web browsing, applications or “apps,” and GPS, bring with them new ways for marketers to reach their target audiences. Marketers can now collect location data. Advertisers can incentivize teens’ visits to certain locations, which in turn cause viral messages to be sent to those teens’ friends. Mobile applications also carry significant privacy concerns, as they are able to send marketers a detailed picture of every location the teen has visited, as well as phone numbers and phone ID codes.

The emergence of ‘smart phone’ technologies has provided marketers with another way to collect data and use it to profile and target adolescents. Teens are heavy users of mobile phones. While more than four out of every five Americans already own a mobile phone,⁷⁹ mobile phone use is still increasing among young teens and children.⁸⁰ Mobile phones are the “favored communication hub for the majority of American teens,” with 75% of 12 to 17 year

⁷⁷ *GirlSense*, MINDSPARK ADVERTISING (Feb. 13, 2011), <http://www.mindsparkadvertising.com/sales/websites/girlsense/index.shtml>.

⁷⁸ *Id.*

⁷⁹ Interactive Advertising Bureau, *Mobile Buyer’s Guide 4* (Sept. 2010), <http://www.iab.net/media/file/mobile-buyers-guide-web.pdf>.

⁸⁰ Amanda Lenhart, et al., *Teens and Mobile Phones*, 14 (2010), <http://www.pewinternet.org/~media/Files/Reports/2010/PIP-Teens-and-Mobile-2010.pdf>.

olds using one.⁸¹ Low income and African American teens are especially likely to go online using a cell phone,⁸² and thus are quickly becoming a favored target of mobile marketing. Advertisers view mobile as "the next great advertising medium," given mobile's ubiquitous status among consumers,⁸³ and the advertising industry anticipates Internet advertising techniques migrating to mobile as more mobile devices are Internet enabled.⁸⁴ Researchers have documented a variety of mobile marketing campaigns for food and beverage products that are highly appealing to children and teens.⁸⁵

Mobile presents advertising opportunities, such as location-based advertising⁸⁶ and in-application advertisements.⁸⁷ Location-based advertising is one of the fastest growing segments of the mobile advertising market. Using GPS or cell phone tower data, it is possible to pinpoint a user's exact location—a process known as geolocation.⁸⁸ In fact, one researcher projects that spending on geolocation-based advertising will jump from \$34 million in 2009 to \$4 billion in 2015 – a 12,000% increase. Many geolocation apps are available, including Foursquare, Gowalla, Facebook Places, Loopt, and MyTown. These are social location-sharing apps that allow users to use their GPS signals to “check in” to a location, thus sharing their location with friends or other users of the service. Users receive incentives to check in, such as in-app rewards, or discounts from sponsoring locations.

⁸¹ *Id.*

⁸² *Id.* at 4.

⁸³ Interactive Advertising Bureau, *IAB Platform Status Report: A Mobile Advertising Overview*, 1 (2008), available at http://www.iab.net/media/file/moble_platform_status_report.pdf.

⁸⁴ *Id.*

⁸⁵ Jeff Chester and Kathryn Montgomery, *Interactive Food and Beverage Marketing: Targeting Children & Youth in the Digital Age*, 32-33 (May 2007), available at <http://www.digitalads.org/documents/digiMarketingFull.pdf>; Jeff Chester and Kathryn Montgomery, *Interactive Food & Beverage Marketing: An Update* 9 (2008), available at http://www.digitalads.org/documents/NPLAN_digital_mktg_memo.pdf.

⁸⁶ Interactive Advertising Bureau, *Mobile Buyer's Guide* 8 (2009), available at http://www.iab.net/iab_products_and_industry_services/508676/mobile_guidance/mobile_buyers_guide.

⁸⁷ *Id.* at 7.

⁸⁸ Monique Cuvelier, *Where in the World Am I?*, *Smart Computing in Plain English*, May, 2001, at 176-79, available at <http://www.smartcomputing.com/editorial/article.asp?article=articles/archive/r0502/42r02/42r02.asp>.

With over 1 million members, Gowalla is one of the leading location-sharing apps. It provides location-based social networking, whereby Gowalla uses the GPS coordinates of users at ‘check-in at locations,’ sent by their phones, to give awards based on visit frequency, timing and sequence (e.g. for completing a ‘trip’ to several locations), and create a location-based social network that can be accessed through a web browser.⁸⁹ Businesses are able to purchase “custom passport stamps” to sponsor their location, or partner with Gowalla to create larger location collection promotions.⁹⁰ Further, Gowalla interacts with both Facebook and Twitter to provide updates on users’ locations or participation in promotions, allowing businesses to promote themselves through Gowalla users’ social networking activity – as each check-in generates a viral message to that user’s friends on the social network.⁹¹ Gowalla recently partnered with Disney to allow attendees of Disney parks to accumulate in-game rewards by ‘checking-in’ at locations throughout the park, in turn allowing both Gowalla and Disney to track park-goers movements and incentivize visiting certain groups of attractions, such as thrill rides, with reward “badges.”⁹² Similarly, EpicMix allows ski resorts to track attendees during their stay, and can be linked to users’ Facebook accounts.⁹³ MyTown, a GPS-enabled virtual environment app, is the most popular location-based social game, with over 3.3 million players.⁹⁴ The game allows advertisers to provide virtual goods to players to encourage brand involvement, and features rewards for ‘checking-in’ to sponsors’ stores.⁹⁵

⁸⁹*New Features: Trips and Bookmarks*, GOWALLA (Feb. 14, 2011), <http://blog.gowalla.com/post/977678400/new-features-trips-and-bookmarks>.

⁹⁰ *Claim You Business on Gowalla*, Gowalla, (Feb. 13, 2011), <http://gowalla.com/business>.

⁹¹ *Id.*

⁹² *Disney on Gowalla*, Gowalla, (Feb. 13, 2011) <http://gowalla.com/disneyparks>.

⁹³ EpicMix Homepage, <http://www.snow.com/epicmix> (last visited Feb. 12, 2011).

⁹⁴ MyTown | Booyah, <http://www.booyah.com/products/mytown> (last visited Feb. 12, 2011).

⁹⁵ H&M Launches MyTown Integration & Ads; Facebook Sponsored Campaign, RyanSpoon.com, <http://ryanspoon.com/blog/2010/02/27/hm-advertising-campaign-in-mytown-facebook/> (Feb. 27, 2010, 12:34 PM EST).

Food and beverage companies have avidly embraced geolocation “check-in” apps.⁹⁶ Branded mobile apps are able to provide customer rewards, while tracking consumer behavior, location information, and generating viral messages.⁹⁷ For example, McDonalds allows Facebook users to check-in at McDonalds locations as part of a larger media buy on the site.⁹⁸ The new feature will show users’ presence at the McDonalds location in their Facebook, and allow McDonalds to serve a directed advertisement to the user while learning key demographic information from the users’ profile as a third-party partner.⁹⁹ Loopt, another geolocation service, has partnered with Burger King to offer free drinks with purchase of a sandwich to users who check-in at certain locations.¹⁰⁰ As with many geolocation services, Loopt and Facebook collect information from users cell phones, and are able to aggregate that data to monetize it.

Proximity advertising is a new trend in mobile advertising. It utilizes Wi-Fi or Bluetooth connections to mobile phones or special barcode images, rather than GPS, to provide extremely accurate location-based advertising.¹⁰¹ One company, Amobee, has partnered with McDonalds and Coca-Cola to provide such advertising at retail locations and through specially equipped billboards.¹⁰² The technology allows companies to reach out to customers from static advertisements, and push interactive advertising or brand incentives through their phones,

⁹⁶ Natalie Zmuda, *Check-in Apps Next Stop: Your Supermarket Aisles*, AdvertisingAge, Nov. 15, 2010, http://adage.com/digital/article?article_id=147100.

⁹⁷ Christopher Heine, *Fast-Food Chains Bypass Foursquare with Branded App*, Clickz, Nov. 11, 2010, <http://www.clickz.com/clickz/news/1895697/fast-food-chains-bypass-foursquare-branded-app>.

⁹⁸ Emily Bryson York, *McDonald’s to Use Facebook’s Upcoming Location Feature*, AdvertisingAge, May 6, 2010, http://adage.com/digital/article?article_id=143742.

⁹⁹ Michael D. Ayers, *McDonald’s and Facebook Teaming Up*, Slashfood, May 10, 2010, <http://www.slashfood.com/2010/05/10/mcdonalds-and-facebook-teaming-up/>.

¹⁰⁰ Loopt, <http://blog.loopt.com/2010/08/burger-king-offering-up-free-drinks-on-loopt-star/> (Aug. 11, 2010).

¹⁰¹ Press Release, Amobee Media Systems, *Amobee Transforms Outdoor Media with the Launch of Proximity Marketing Service* (Feb. 4, 2011), available at <http://www.prnewswire.com/news-releases/amobee-transforms-outdoor-media-with-the-launch-of-proximity-marketing-service-115274179.html>.

¹⁰² Advertisers – Amobee, <http://www.amobee.com/advertisers/index.html> (last visited Feb. 12, 2011).

driving sales.¹⁰³ Other avenues for providing such advertising are augmented reality applications and tag-recognition advertising, which allow a company to send advertising information to mobile phones after an image is recognized through the phone's camera.¹⁰⁴

Mobile applications carry risks similar to social networking applications. The Wall Street Journal found popular applications transmitted unique phone identifiers, called UDIDs, to developers, as well as age, gender, location, and zip code to various ad networks, without notice or consent.¹⁰⁵ The scope of the problem is significant. A recent study found that 2/3 of apps use data suspiciously,¹⁰⁶ transmitting at least phone numbers and UDIDs to the app's server, and geolocation data to third party advertising networks.¹⁰⁷ These are particularly invasive because unlike cookies, device IDs cannot be deleted by users:

"The great thing about mobile is you can't clear a UDID like you can a cookie," says Meghan O'Holleran of Traffic Marketplace, an Internet ad network that is expanding into mobile apps. "That's how we track everything."¹⁰⁸

The technological advances of mobile phones have given marketers new ways to track and profile consumers. When using apps and the mobile web, adolescents face location tracking, compromised personal information, and intrusive location-based advertising.

D. Gaming Offers Advertisers Brand Immersion and User Tracking Abilities

Teens are not only avid users of mobile phones, but are also avid gamers. Video games are no longer confined to consoles and computers. Innovations now allow a single game users'

¹⁰³ Clients and Testimonials, <http://www.ad-pods.com/clients-and-testimonials.html> (last visited Feb. 12, 2011).

¹⁰⁴ Augme Mobile, mobile marketing, mobile advertising campaigns, SMS & MMS, 2DTags, QR Code, <http://augmemobile.com/welcome-to-ad-life.asp> (last visited Feb. 12, 2011).

¹⁰⁵ Scott Thurm & Yukari Iwatani Kane, *Your Apps Are Watching You*, Wall St. J., Dec. 17, 2010, <http://online.wsj.com/article/SB10001424052748704694004576020083703574602.html>.

¹⁰⁶ William Enck et al., *TaintDroid: An Information Flow-Tracking System for Realtime Privacy Monitoring on Smartphones*, 13 (2010), available at <http://appanalysis.org/tdroid10.pdf>.

¹⁰⁷ *Id.* at 9.

¹⁰⁸ Thurm & Kane, *supra* note 105.

ID to follow him or her across console, computer, handheld, and mobile phone platforms. User data is collected and compiled by gaming companies to offer marketers the ability to target advertising based on this data, and to advertise within the games themselves. With emerging technologies in the gaming industry, along with new advertising opportunities, new threats to privacy are emerging as well, and the notion of ‘user-tracking’ is taking on a whole new meaning.

Gaming consoles provide large-scale data collection and user-tracking opportunities. Research conducted for the Entertainment Software Association, a group representing the video game industry, found that 23.5 million computer games and 176.7 units of game console software were sold in 2009, and 60% of all games sold were rated "Everyone (E)" or "Everyone 10+ (E10+)."¹⁰⁹ Two major gaming networks are Sony’s Playstation Network and Microsoft’s Xbox Live. Both offer similar functionality to their users: the ability to play games and chat with friends, download demos and full games, and access online media.¹¹⁰ Although these services did not exist ten years ago, they last year had over 50 million accounts combined.¹¹¹ Research shows that 8-18 year olds spend on average over an hour a day on gaming, including 36 minutes on consoles, and the balance on hand-held or mobile games.¹¹² According to Microsoft’s research, 84% of teens own at least one gaming console, and will spend over 12 hours per week

¹⁰⁹ The Entertainment Software Association – Sales & Genre Data, <http://www.theesa.com/facts/salesandgenre.asp> (last visited Feb. 12, 2011).

¹¹⁰ Join Xbox LIVE – Xbox.com, <http://www.xbox.com/en-US/live/joinlive.htm>, (last visited Feb. 12, 2011); Playstation Network, <http://us.playstation.com/psn/index.htm> (last visited Feb. 12, 2011).

¹¹¹ Playstation Network, <http://us.playstation.com/psn/index.htm> (last visited Feb. 12, 2011).; Press Release, Xbox.com, *An Open Letter from Xbox LIVE General Manager Marc Whitten*, (Feb. 5, 2010), available at <http://www.xbox.com/en-US/Press/archive/2010/0205-whittenletter><http://www.xbox.com/en-US/press/2010/0205-whittenletter.htm>.

¹¹² Victoria J. Rideout, M.A. et al., *Generation M²: Media in the Lives of 8- to 18-Year-Olds*, 25 (Kaiser Family Foundation, 2010), available at <http://www.kff.org/entmedia/upload/8010.pdf>.

playing.¹¹³ Microsoft expects the market for online gaming “will grow substantially in the next five years to over 175 million gamers.”¹¹⁴

The user information collected by online gaming consoles overlaps, and sometimes exceeds, the data captured during traditional web browsing. Gamers’ personal information is collected when they register their accounts. In addition, behavior is tracked as they play games. Microsoft can track an individual’s behavior “across the Web, mobile and Xbox platforms when consumers sign into their Windows Live account.”¹¹⁵ Accounts are linked through Hotmail email, Xbox Live, and Windows Live accounts, all contributing to behavioral profiles.¹¹⁶ Microsoft can link user’s behavior on the Web with behavior on mobile phone and Xbox.¹¹⁷ This facilitates targeting, and allows advertisers to track game users and monitor gamers exposed to ads to see if they then go online and use the advertised product.¹¹⁸ Microsoft considers its ability to target kids and teens a selling point for its in-game advertising program.¹¹⁹ By monitoring user IDs and tracking cookies across Microsoft affiliated sites, it was determined that in-game advertising increased the percentage of gamers using an advertised service by 108%, and two-thirds of those were new users.¹²⁰

The amount of advertising in video games is also growing. This advertising is increasingly dynamic and can “be targeted to meet specific geographic needs and timing

¹¹³ Microsoft In-Game Advertising Case Study Compendium, http://advertising.microsoft.com/WWDocs/User/en-us/ForAdvertisers/In-Game_Advertising_Case_Study_Compndium.pdf (last visited Feb. 13, 2011).

¹¹⁴ *Id.*

¹¹⁵ Laurie Sullivan, *Microsoft Links Behavioral Targeting Across Web, Mobile, Xbox*, Behavioral Insider, Sept. 23 2009, http://www.mediapost.com/publications/?fa=Articles.showArticle&art_aid=114165; see Laurie Sullivan, *Bing In-Game Advertising Campaign Pushes Players To Search Engine*, SearchBlog, Friday, May 21, 2010, http://www.mediapost.com/publications/?fa=Articles.showArticle&art_aid=128691.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ Marius Oiaga, *Massive’s In-Game Advertising On Par With Other Forms of Digital Marketing*, Softpedia, May 21, 2010, <http://news.softpedia.com/news/Massive-s-In-Game-Advertising-on-par-with-Other-Forms-of-Digital-Marketing-142655.shtml>.

¹¹⁹ Gaming, Microsoft.com, <http://advertising.microsoft.com/ad-solutions/gaming> (last visited Feb. 12, 2011).

¹²⁰ *See id.*

needs."¹²¹ One provider, In Game Advertising Worldwide, currently offers immersive advertising and product placement services in teen-targeted games on the Playstation Network, including the Playstation 3 (PS3) and the handheld Playstation Portable (PSP) platforms.¹²² Sony, like Microsoft, gives advertisers the ability to require their gamers to experience and interact with an advertised brand as part of the game experience on their consoles.¹²³

Online and mobile games are increasingly popular among teens, and are often part of a large advertising network. Google recently expanded its AdSense program to offer in-game advertising for web-based games, and allows publishers to target advertising to teens.¹²⁴ The largest online in-game advertising company, Mochi Media, currently reaches over 100 million unique gamers, and offers advertisers the ability to track users, as well as target teens—one of their core audiences.¹²⁵ Conservative estimates predict the global in-game advertising market to be worth one billion dollars by 2014,¹²⁶ while more aggressive figures predict it will be worth two billion dollars by 2012.¹²⁷ The profitability and effectiveness of online in-game advertising, both console and computer, indicate it will continue to grow.¹²⁸

¹²¹ Massive Incorporated, *Ad Types and Specs*, <http://www.massiveincorporated.com/adtypesandspecs.html> (last visited May 6, 2010) (Xbox advertising); see also Double Fusion, *In-Game Advertising. Putting Advertising in Play*, <http://www.doublefusion.com/> (last visited June 29, 2010) (Xbox advertising); Press Release, Double Fusion, *Double Fusion Brings Dynamic In-Game Ads to Dead to Rights: Retribution*, Sept. 28, 2009, available at <http://au.ps3.ign.com/articles/102/1028834p1.html>.

¹²² Matthew Fields, *In-Game Ads Head to PlayStation 3*, AdWeek, June 5, 2008, http://www.adweek.com/aw/content_display/news/e3id5e31ff62023deed02a4d5409d575f20.

¹²³ IGA Worldwide, <http://www.igaworldwide.com/advertisers/ourapproach/creative-solutions.cfm> (last visited Feb. 14, 2011).

¹²⁴ Google In-Game Advertising, <http://www.google.com/ads/games/publishers.html#sourceid=aso&subid=ww-ww-et-pubsol&medium=link> (last visited Feb. 14, 2011).

¹²⁵ Mochi Analytics API, <http://www.mochimedia.com/developers/analytics.html> (last visited Feb. 14, 2010); The Mochi Audience, <http://www.mochimedia.com/advertisers/audience.html> (last visited Feb. 14, 2010).

¹²⁶ JJ Richards, *In-Game Advertising "Facts are Stubborn Things..."*, Microsoft Advertising Blog, Oct. 4, 2009, <http://community.microsoftadvertising.com/Blogs/Advertising/archive/2009/10/05/in-game-advertising-facts-are-stubborn-things.aspx>.

¹²⁷ Alasdair Reid, *Media: All About ... In-game advertising*, Campaign, Feb. 2, 2007, <http://www.campaignlive.co.uk/news/630746/Media-In-game-advertising/>.

¹²⁸ Robin Wauters, *Study: In-Game Video Advertising Trumps TV Advertising In Effectiveness*, TechCrunch, Mar. 24, 2009, <http://techcrunch.com/2009/03/24/study-in-game-video-advertising-trumps-tv-advertising-in->

Privacy threats can also arise from the increasing technical capabilities of video game consoles. Microsoft recently unveiled the Kinect voice and motion-control sensor system for the Xbox.¹²⁹ Kinect includes a camera that enables facial recognition and more.¹³⁰ Kinect can identify the user playing a game, track full body movements, and view the entire room with 3-D imaging.¹³¹ It is able to capture enough personal information to be used for biometric security applications.¹³² The advertising applications of such specific user data have unprecedented potential for invasiveness that has been recognized by advertisers and watchdogs alike.¹³³ Kinect has already proven its affinity for advertising, though without utilizing the full extent of its technical abilities. Kinect launched with Kinectimals plush dolls, which are scanned and recognized by the Kinect system, and rewards the purchase of the dolls with additional gameplay.¹³⁴ Burger King recently partnered with Microsoft to offer “Kinectimals” with its kids meals and a cross promotion with the “Club BK” website, which notes on a small cartoon sign “Hey kids, this is advertising.”¹³⁵

As consumer communications technology continues to evolve, marketers’ ability to pinpoint audiences through new forms of data collection will evolve with it. From online tracking, to geolocation applications, and even to video games with advanced biometric scanning

effectiveness/; Massive Inc., *Case study – Significant Findings*, <http://www.massiveincorporated.com/casestudies.html> (last visited June 29, 2010).

¹²⁹ Press Release, Microsoft, *Kinect Fact Sheet*, June 2010, www.microsoft.com/presspass/presskits/xbox/docs/KinectFS.docx.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² Kevin McLaughlin, *Microsoft Partners See Kinect Going Beyond Games*, Channel Web, June 17, 2010, <http://www.crn.com/software/225700575>.

¹³³ Chris Lange, *Project Natal's Ad Potential*, Adweek, April 21, 2010, http://www.adweek.com/aw/content_display/community/columns/other-columns/e3i9d00b780a7553c2191ffbfd21f9ace0c; Eye Tracking Update, *Project Natal: Targeted Advertising, a Biometric Nightmare*, <http://eyetrackingupdate.com/2010/05/11/project-natal-targeted-advertising-biometric-nightmare/>, (May 11, 2010)

¹³⁴ Kinectimals – Xbox.com, <http://marketplace.xbox.com/en-US/Product/Kinectimals/66acd000-77fe-1000-9115-d8024d5308b3> (last visited Feb. 14, 2011).

¹³⁵ Club BK, <http://www.clubbk.com/> (last visited Feb. 14, 2011).

abilities, marketers have found increasingly intrusive avenues into teens' lives. The Commission should recognize that, as sensitive users, teens should be afforded enhanced privacy protection in the face of privacy-intrusive marketing technologies.

IV. THE COMMISSION SHOULD RECOGNIZE TEENS AS SENSITIVE USERS AND EXTEND ENHANCED PROTECTIONS TO TEENS THROUGHOUT THE FRAMEWORK

We endorse a “sensitive users” approach to teen privacy protections. As demonstrated above, today’s teens are vulnerable to a host of privacy threats and are particularly susceptible to the detrimental effects of data collection. Every component in the Commission’s framework, including the framework’s scope, privacy by design protocols, enhanced choice recommendations, and data control suggestions, should acknowledge the sensitivity of teen data. The framework’s scope should be expanded to explicitly include teens’ data. Privacy by design recommendations should take into account the particular vulnerabilities of teens. Privacy notices should be calculated to reach teens and teens should be given default privacy protections including Do Not Track. Finally, teens should have enhanced ability to access and control their data.

The Commission inquires about enhanced consent procedures for teens and additional protections in the social media context.¹³⁶ We recommend not only enhanced consent but also additional protections throughout the privacy framework, not just in the social media context. Enhanced protections for teens must be instituted across an organization’s privacy program, both substantively as well as procedurally. By making crucial extensions to teens in each of the framework’s four building blocks (scope, privacy by design, simplified choice, and greater

¹³⁶ Fed. Trade Comm’n, Protecting Consumer Privacy in an Era of Rapid Change: A Proposed Framework for Businesses and Policymakers, Report, p 62 (2010).

transparency), the Commission will help ensure that teens are properly protected as sensitive users.

A. The Framework’s Scope Should Be Expanded for Teen Data

The Commission’s framework is meant to apply to all data that can be “reasonably linked to a specific consumer, computer, or other device.”¹³⁷ Teen data should be protected in two important ways. Teens are less likely to know how data can be linked, and thus more of their data should receive the protection of the framework. Further, the scope of our recommendations for teen data should include all operators that collect teen data. Companies should be open about their collection and use of teen data, and should detail the steps they take that are in line with the framework. To the extent that companies treat their audiences and target their subjects as teens, they should apply the teen protections of the framework.

B. The Framework Must Include the Needs and Vulnerabilities of Teens When Implementing “Privacy by Design”

In discussing “privacy by design,” the Commission recommends that companies collecting sensitive data must devote more resources to privacy protections.¹³⁸ We support this recommendation, and also recommend that companies collecting data from sensitive users, such as teens, must give those users special considerations when designing their privacy procedures. The framework should give teens special consideration in each of the four privacy practices it suggests: security, collection minimization, limited data retention and accuracy.

¹³⁷ *Id.* at 43.

¹³⁸ *Id.* at 49.

1. Teens’ data should be always considered “sensitive” and their data protected by high security measures

The proposed framework states that companies should employ reasonable physical, technical, and administrative safeguards to protect information and that “the level of security required should depend on the sensitivity of the data, the size and nature of a company’s business operations, and the types of risks a company faces.”¹³⁹ We recommend that the framework explicitly recognize that teens’ data is sensitive and that therefore companies should afford it a very high level of security. Companies should specify this higher level of security in their privacy disclosures.

2. Companies should minimize the data they collect from teens and must not collect data to track, profile, or target teens with behavioral marketing

The Commission’s framework recommends that companies should minimize the data they collect by “collect[ing] only the information necessary to fulfill a specific, legitimate business need.”¹⁴⁰ Because of the special vulnerabilities of teens, the range of legitimate business needs must be more limited than with adults. In particular, collecting data to track, profile, or target teens with behavioral marketing should not be considered a legitimate business need. Teens are particularly sensitive to behavioral marketing practices that manipulate their data for advertising purposes. They are less able to resist advertising in the social media context.¹⁴¹ Teens also are prone to risk-taking and to divulging information about themselves that will be embarrassing or damaging later on. Furthermore, the framework should emphasize that companies should take special care to minimize the data that they collect from teens. Companies

¹³⁹ *Id.* at 45.

¹⁴⁰ *Id.* at 45.

¹⁴¹ *See supra* section II.

should detail the steps they take to minimize data collection and eliminate behavioral marketing to teens.

3. Companies should adopt short-scale time limits for the retention of teen data

The framework suggests that companies implement reasonable and appropriate data retention periods for data and that they dispose of data securely.¹⁴² We recommend that companies implement shorter retention periods for teens. Data gathered from teenagers often traces the experimentation and interactions necessary for teens to shape their future adult identities. As such, data gathered from teens can be both highly influential and highly embarrassing. Consequently, the framework should include shorter retention periods for adolescent data. The Commission's framework should include an "age out" policy, whereby companies should only retain a limited set of data gathered while a person was a teenager after that person turns eighteen. Companies should detail how they implement shorter data retention and age-out for adolescent data.

4. Companies should alleviate the problems of data accuracy by limiting the propagation of data gathered from teens

Finally, the Commission's framework recommends that companies should work to ensure data accuracy.¹⁴³ This is especially true for teenagers who might not be able to properly evaluate the risk their actions entail and who are prone to exaggeration. In addition to the data retention measures listed above, the best way to alleviate the problems of accuracy is to limit its propagation. Therefore, the framework should explicitly suggest that companies adopt policies to ensure that data collected from teenagers does not propagate any more than necessary. The

¹⁴² Fed. Trade Comm'n, *supra* note 136 at 46.

¹⁴³ *Id.* at 48.

Commission's framework should further include that companies specifically state in their privacy policies to what types of businesses and under what circumstances will they transfer teens' data. When teens access their data, they should also know to whom their data has been transferred.

C. The Commission Should Provide Enhanced Choice for Teenagers

The Commission's framework recognizes that consumers should be given the opportunity to make informed and meaningful choices about when and how their data is collected. The framework recognizes that "[t]o ensure that choice is meaningful and accessible to consumers, companies should describe consumer choices clearly and concisely, and offer easy-to-use choice mechanisms. To be most effective, companies should provide the choice mechanism at a time and in a context in which the consumer is making a decision about his or her data."¹⁴⁴ We support many of the framework's specific recommendations for how to achieve simplification of choice and notification, such as standardized privacy notices and consumer testing.¹⁴⁵

The Commission asked for comment on how to provide teens with appropriate choice mechanisms.¹⁴⁶ The Commission should provide enhanced choice for teenagers in several ways. First, the Commission's framework should further limit the set of business practices for which companies are not required to provide notification and choice when teens are providing data. Second, privacy policies should specifically address teens. Third, the framework should require that notices be tailored to reach teens and be understood by them. Fourth, the Commission should require companies to provide teens with default choices that protect their privacy and security.

¹⁴⁴ *Id.* at 58.

¹⁴⁵ *Id.* at 71.

¹⁴⁶ *Id.* at 62.

1. The framework should limit the “first party” exclusion to notice and choice requirements for teens

The Commission notes that certain practices should not require consumer choice, including “first party marketing.”¹⁴⁷ In many cases, especially in online social media, the distinction between first and third party has become increasingly blurred. Social networks such as Facebook are increasingly given space on non-Facebook websites to display content and, in turn, gather information about the user’s activity on those sites.¹⁴⁸ For example, the Washington Post gives Facebook space on the Post’s website in which Facebook will display what content from the user’s friends viewed on the Post’s site. Facebook in turn gathers information about what the user viewed at the Washington Post. In this situation, users may be confused as to whether Facebook or the Washington Post can be considered a “first party.” Similarly, applications are a part of Facebook’s site layout and interactivity – they can even publish items in a user’s Facebook feed - but they collect data from users on behalf of parties besides Facebook. Again, users may be confused whether Facebook or the application’s owners should be considered a first party.

Another problem is that many first parties are large conglomerates and can aggregate data across many sites and brands. For example, Kraft foods owns a slew of brands including Capri Sun, Kool-Aid, Nabisco, Oreo, Snackwell’s, and Taco Bell Home Originals.¹⁴⁹ Consumers may believe they are getting suggestions based on their use of the site they are currently viewing when in fact the site is using data aggregated from many sites.

¹⁴⁷ *Id.* at 54.

¹⁴⁸ *See supra* section III.B.

¹⁴⁹ Your Favorite Kraft Brands, <http://www.kraftrecipes.com/Products/KraftBrands/KraftBrands.aspx> (last visited Feb 13, 2011).

The result is that users are easily confused about how their activity on a website is being monitored and later used, and that the distinction between first and third party can appear to users to be meaningless. Consequently, the Commission should seek to define “first party” from a consumer’s point of view and more firmly limit the circumstances in which the no-notice exception applies, specially where adolescent data is concerned.

2. Notice should be tailored to reach teens and tested for effectiveness

Notice should be calculated to reach teens and be understood by them. Teens may have much greater incentive to use social media as a means of forming their identities, and therefore may be more likely to ignore privacy warnings or to take on greater privacy risks than adults.¹⁵⁰ Therefore, teens are both less likely to read a privacy policy and more likely to accept its terms without reading or understanding its terms. Privacy disclosures should be tailored for teen audiences and tested to be sure they are effective.

3. Companies should specifically address adolescent protection in their disclosure, and the FTC should monitor and enforce company promises

As detailed above, teens are vulnerable users that require special consideration in most circumstances where their data is being gathered. Therefore, the Commission’s framework should provide that companies that collect and use adolescent data should detail exactly how each element of their privacy practice provides protections for adolescents. Companies should detail how their “privacy by design” provides special consideration for adolescents, so that the Commission and the public can better evaluate company performance.

¹⁵⁰ See *supra* Part II. See also Seounmi Youn, *Determinants of Online Privacy Concern and Its Influence on Privacy Protection Behaviors Among Young Adolescents*, 43 *Journal of Consumer Affairs* 389 (2009) (“perceived benefits offered by information exchange decreased privacy concerns”).

4. The Framework should Provide for Privacy Protecting Defaults, Including Do Not Track.

Providing teens with enhanced choice also means reducing the effort that teens must expend to make the best choice. Therefore, privacy options for teens should abide by two rules of thumb: 1) Teens should have less permissive defaults and 2) the options should require an opt-in scheme for data collection. Both of these reflect an understanding of adolescents' vulnerability and the importance of their access to online services. With more secure defaults, adolescents who join online services for peer interactions will not automatically be joining environments of permissive data collection. Secondly, by requiring opt-in consent for data collection, teens will have more opportunity to participate in choice. These options will vary by each type of service and by what options they provide. As noted previously, company disclosures should explain how they are enacting better defaults for adolescents and how they are offering them opt-in consent.

In particular, we support a Do Not Track approach, and recommend that a more robust version be offered to adolescents.¹⁵¹ This approach recognizes both the developmental importance of online technologies and the vulnerabilities of adolescents. We recommend that Do Not Track be the default option for teens. Further, teens that use the Do Not Track feature should not be limited in their access to content and other online features.

D. Adolescents Should Have Access to Enhanced Control over their Data.

We support approaches that would permit adolescents to delete information about them that is held by companies. This approach recognizes that adolescence is a time of key identity exploration and maturation that is also marked by developing decision-making skills. As a result, teens are more likely to make use of the ability to delete embarrassing or damaging data that has

¹⁵¹ Cf. Fed. Trade Comm'n, *supra* note 136 at 63.

been collected about them. Additionally, the Commission must recognize that the opportunity to control one's data necessitates knowledge that data has been collected and shared. Therefore, the Commission's framework should provide that companies regularly allow teens access to where and how their data has been shared. If possible, this notification should come through the contact information available at the point of collection. Also, where companies have transferred data to another entity, a record of the transaction must be kept so that if a teen tries to delete her data with a company, that company can notify all subsequent transferees of the request.

V. RESEARCH SHOULD CONTINUOUSLY INFORM THE PRIVACY FRAMEWORK

The Commission should regularly undertake research that informs the public and policymakers about the state of teen privacy and data collection. The Commission currently conducts research on the marketing of violent entertainment and on food and beverage marketing.¹⁵² Such a study would be within the scope of the privacy framework, and would bring benefits similar to the ones seen in the other marketing studies.

The Commission's other studies have been invaluable to policymaking. Then Chairman Kovacic noted that the 2008 Food and Beverage report made a "path-breaking contribution to understanding how food and media industries are marketing food to youth."¹⁵³ Based on compulsory process orders, the Commission used the information received to develop detailed

¹⁵² Advocates asked that the Commission collect data on marketer's use of personal information during the current food marketing study. Comments of the Food Marketing To Children Workgroup, 11/23/2009. The Commission replied that such issues were "outside the scope" of a study on food marketing. Agency Information Collection Activities; Submission for OMB Review; Comment Request, 75 Fed. Reg. 29,345 (May 25, 2010), available at <http://edocket.access.gpo.gov/2010/2010-12511.htm>.

¹⁵³ Press Release, Fed. Trade Comm'n, *FTC Report Sheds New Light on Food Marketing to Children and Adolescents*, (July 29, 2008), available at <http://www.ftc.gov/opa/2008/07/foodmkting.shtm>.

recommendations to industry.¹⁵⁴ The report was also intended to serve as a “benchmark for measuring the future success of voluntary efforts to modify” food and beverage marketing to children.¹⁵⁵ The Commission’s data collection was specifically intended to evaluate how companies were implementing previous FTC recommendations.¹⁵⁶ The Commission’s studies on the marketing of violent entertainment started with results that “surprised and disturbed,” according to Chairman Liebowitz.¹⁵⁷ The results of these studies have led to Commission recommendations which have improved self-regulatory programs.¹⁵⁸ These same benefits can accrue to the Commission’s privacy framework.

The Commission should engage in the same regular monitoring of company practices as a part of its privacy framework. The Commission will be better informed about industry practices; will be able to determine whether the framework is being implemented; and will be able to develop measurable recommendations that track and respond to these practices. The Commission should inquire into the data collection and use practices of data brokers, marketers, social networking companies, and other companies that collect and use information about teens. The Commission should inquire into the data categories collected, the size of the collections, and detailed explanations of how the data is shared, accessed and used.

VI. CONCLUSION

The Commission’s framework should recognize adolescents as sensitive users. New media plays an inescapable role in the lives of adolescents. At the same time, adolescents have

¹⁵⁴ Fed. Trade Comm’n, *Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*, ES-12 (2008).

¹⁵⁵ *Id.* at 1.

¹⁵⁶ *Id.* at 60.

¹⁵⁷ Chairman Jon Liebowitz, *Statement on the Commission’s Sixth Follow-up Report on Entertainment Violence* (Sept. 12, 2003), *available at*, <http://www.ftc.gov/speeches/leibowitz/091203violencerpt.pdf>.

¹⁵⁸ *Id.*

unique vulnerabilities that can be exploited in the social and online context. By recognizing them as sensitive users with enhanced protections throughout the framework, the Commission will protect an important developmental space for adolescents.

Respectfully Submitted,

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