# Introduction

"Welcome to Bolt," greets the home page of this popular teen Web site (www.bolt.com). "Everything you need to speak your mind." The first-time visitor is confronted with a highly charged, vibrant, pulsating menu offering a collage of activities available at the click of a mouse. One can vote in the day's survey panel, responding to such questions as, "Do you believe in ghosts?" or "How much TV do you watch every day?" One can find like-minded teens interested in a variety of subjects, with over 7,000 online clubs that run the gamut of teen interests. The site itself is divided into 15 broad topics, or "channels" (Advice, Art & Writing, Cars, College, Dealing & Health, Drugs, Gaming, Jobs & Money, Movies, Music, Mystic, Sex & Dating, Sports, Style & Looks, and TV), and offers seemingly unlimited opportunities for teens to voice their opinions, through e-mail/voice mail, instant messaging, chat, personal calendars, message boards, Web site publishing, polls, and surveys.[1]

One of the most frequently visited Web sites for teens, Bolt boasts more than 4 million "members" age 15 and up.[2] According to company executives, Bolt is not a traditional "content" site; rather, it is a communications platform, an online community for teens, who themselves create more than 95 percent of the site's content. "What we are doing," explains co-founder Jane Mount, "is creating a context, a framework, a common platform" to let teens express themselves and to find other people with similar interests and concerns.[3]

The Bolt site is just one of many online "destinations" whose brand names—Alloy, MTV, Snowball, and the like—have become familiar gathering places for teens in the new frontier of the World Wide Web. The Internet has spawned hundreds of Web sites, portals, and other content networks created especially for this age group. While the recent "dot-com shakeout" has claimed some casualties among these Web-based ventures, it has not impeded the steady growth of a powerful new digital media culture that is swiftly moving into the daily lives of U.S. adolescents.

The emergence of this new online environment is part of a major transformation of our entire communications system. More than half of all Americans were hooked up to the Internet by the end of 2000, and within the next four years that number is expected to grow to 85 percent.[4] Nearly nine out of ten American homes will soon be interactively wired. Most will connect through personal computers; but other devices, including digital TVs, game consoles, portable devices, and next-generation digital cable set-top boxes, will increasingly provide a link.[5]

In many ways, teens are the *defining users* of this digital media culture. They are the first generation to grow up surrounded by and immersed in digital technologies.[6] With nearly three-quarters of twelve-to-seventeen-year-olds online, teens surpass adults in their use of chat, instant messaging, and other forms of Internet communications.[7]

As "early adopters" of these technologies, teens are as comfortable growing up with digital media as their parents' generation was with the telephone and TV. This easy fluency among teens, in contrast to the typically greater hesitancy among adults, is shifting power relationships within the family. Teenagers are not only helping their parents learn how to use a computer, they often guide their families' purchases for computer-related products. According to Carnegie Mellon University Professor Sara Kiesler, "With the advent of the teenage guru, the child in the family plays a new role of child-as-technical advisor, a role ... that confers on the teen authority and probably independence as well."[8]

Teens are also integrating interactive devices into their daily lives in unexpected, often inventive ways. Dubbed "teleWebbers" or "viewsers" by the media industry, many teens have already begun using the television and the computer simultaneously, far in advance of the so-called convergence of these two media.[9] A host of new products is being created exclusively for teens, which may very well be the test market for the next generation of digital content and services. For example, teens' desire to chat is spawning many new handheld, wireless tech products that are designed primarily for instant messaging and chat, but which also feature interactive gaming, Internet access, digital picture and music storage, and personal information management.[10]

The young people of today are also tomorrow's adults; how they consume and participate in new media will help determine the future shape and direction of the media system. Teens are more than just consumers of media content; they are also active participants and creators of this new media culture, developing content themselves, designing personal Web sites, and launching their own online enterprises.[11] As one trade publication observed, young people have not simply adopted digital media, they have *internalized* it.[12] The behaviors, attitudes, and values that teens are embracing as part of their new-media experience could have significant impacts on the larger culture.

New media technologies are making their way into American life at a time when teens have become a booming target market for advertisers and marketers. Spending among teenagers has increased steadily during the past several decades, rising dramatically in more recent years. Teen spending power doubled between the years 1960 and 1980, and tripled in the 90s. By 2000, 31.6 million teenagers spent an estimated $155 billion of their own money in the

retail market.[13] Teens not only spend money on themselves; they also wield tremendous influence over purchases made by their parents. The increase in families where both parents work, along with the aggressive marketing of adult products to children, have given teens much more power and responsibility in purchasing decisions of such big-ticket items as cars, family vacations, and furniture.[14]

Indeed, the rise of teen digital media is part of a larger proliferation of new product categories and programs targeted at this valuable demographic group. This is a generation that has grown up in a marketplace that zeroes in on younger and younger audiences, employing synergy and cross-marketing among television and movie characters and products to create a ubiquitous commercial youth culture. "In the 1980s, children got their own TV networks, radio networks, magazines, newspapers, kids' clothing brands, books, banking, and such high-ticket items as video games and other high-tech products."[15] "By 1995," notes market research expert James McNeal, "virtually every consumer goods industry was somehow involved in marketing to children, either as a primary influence, or future market, or some combination of these."[16]

## Hazards and Hopes: Two Views of the Internet

Despite the rapid growth of this new digital culture, comparatively little public attention has been paid to it. When the spotlight has been cast on teens and new media, news coverage has tended to focus on the negative impacts. For example, after the 1999 shooting at Columbine High School, the world of cyberspace was seen as a dark and dangerous place that ensnared young people. News stories and congressional hearings occasionally provide frightening accounts of teens who have become unwitting victims of pornography or, even worse, of online predators who lurk in chat rooms. Concerns about online pornography produced the Communications Decency Act in 1996, which was subsequently ruled unconstitutional, as well as two subsequent acts (the Child Online Protection Act of 1998 and the Children's Internet Protection Act of 2000), which are currently facing court challenges.[17] Dozens of filtering software products have flooded the market, promising to assuage parental concern by blocking out harmful content on the Internet.[18]

But while parents, policymakers, and educators worry about pornography and predation, they also express optimism about the Internet's power to enhance educational opportunities and communication possibilities.[19] Most Americans believe that children should enjoy equitable access to these powerful new technologies, prompting a range of public and private initiatives to wire the nation's schools and libraries in order to help bridge the "digital divide."[20]

This contradictory discourse, with concerns about the hazards of the Internet on the one hand, and visions of its educational potential on the other, echoes earlier public attitudes over new media. As Ellen Wartella and Nancy Jennings observe, "With the introduction of each new wave of innovation in mass media throughout the twentieth century—film, radio, television—debates on the effects of new technology have occurred, especially with regard to the effect on young people. Each new media technology brought with it great promise for social educational benefits and great concern for children's exposure to inappropriate and harmful content."[21]

Amid today's heightened attention to such disparate issues as moral decay and educational opportunity, very little is really understood about the nature of the digital content and services created for and by teens—the actual Web sites where they spend so much time and to which they devote so much attention. As a consequence, even as this new medium is becoming a pervasive presence in teens' lives, it remains largely under the radar of parents, scholars, and policymakers alike.

## The New Media's Role in Adolescent Development

This report is designed to shed light on this new digital culture, and on the technological and economic forces that are shaping it. Our focus here is on the World Wide Web, which we see as the center of innovation and implementation for the new-media system (even as the Web itself, as it gradually extends its reach from the personal computer to the TV set and to various wireless devices, continues to evolve). The study provides an overview of popular teen Web sites, identifying the key features that characterize online content and activity for teens, and analyzing the major industry trends that are influencing the design and direction of the new teen media culture. We did not set out to assess the "impact" of new media on teens; rather, our intention was to provide a "map" of this emerging media landscape, one that we hope will guide other researchers in their study of various aspects of it, and of the ways teens are interacting with it, in greater detail.

We are particularly interested in beginning to understand the role that new media might play in the process of adolescent development. Research has documented a number of critical biological, cognitive, and emotional changes that take place during the transition period of adolescence. One of the most important is identity formation. As teens begin the exploration of their adult identities, they undergo a shift in self-perception. They begin thinking about their hypothetical future selves, often choosing from different possible identities, and trying some on for size. They also become intensely preoccupied with comparing themselves to others. As their self-identity undergoes these changes, teens are exposed to ever-greater levels of

uncertainty and vulnerability.[22] (See sidebar, "Adolescent Development: Growing Up Is Hard To Do," page 11.)

Media have always played a role in this process. As teenagers spend less time with their families, outside influences become more important. The opinions of friends matter more; and diverse media, such as music, movies, magazines, and computers, become more powerful influences as well. Teens are active users of media, basing their choices on both interest and need. Because teen engagement with media usually intensifies just as parental influence is waning, the media can play a strong role in shaping teen attitudes, as well as their sense of self and the world.

The handful of studies that have been conducted on teens' use of new media suggest that accessing the Internet addresses many of the same needs served by traditional media—such as entertainment, identity formation, high sensation, coping, and youth culture identification. However, the unique nature of the new digital environment presents an unprecedented array of possibilities for communication, interaction, and expression never before available.[23] No longer must teens serve strictly as consumers of one-way messages (as from television or radio). Online technologies offer new tools and new opportunities to become more actively involved in the exploration of identity, and to find expression for many different "possible selves." Chat rooms, for example, allow teens to create personas quite distinct from their everyday identities, and to act them out in cyberspace.

As Sherry Turkle has argued, the Internet and other digital media have created a new "culture of simulation," with profound implications for the development of identity. "From scientists trying to create artificial life to children 'morphing' through a series of virtual personae," she writes,

> *we shall see evidence of fundamental shifts in the way we create and experience human identity. But it is on the Internet that our confrontations with technology as it collides with our sense of human identity are fresh, even raw. In the real-time communities of cyberspace, we are dwellers on the threshold between the real and virtual, unsure of our footing, inventing ourselves as we go along.*[24]

Electronic communication also relieves teens from typical gender role constraints that often influence face-to-face interactions.[25] Susannah Stern's study of the home pages of adolescent girls concludes that "home pages provide girls with greater opportunity to openly express thoughts, interests, and to create a public identity."[26] Other studies have noted that young adolescent girls find the Internet particularly liberating because they are treated with a degree

of respect missing in face-to-face conversations.[27] For example, teen girls, who stereotypically are less talkative and assertive than boys, spoke freely and passionately in a computer-mediated forum.[28] Scholars have also suggested that teens use the Internet not just to communicate with individual others, but also to participate in various online communities. Particularly for those teens who feel uncomfortable or unaccepted in their "real" (offline) lives, online communities provide extensive networks of like-minded others with whom teens can share their thoughts and experiences.[29] (See sidebar, "Academic Research on Teens and the Media," page 13, for more detailed research findings.)

There are still numerous questions that researchers have not begun to address adequately. For example, in a communications environment that feels anonymous, young people can reveal their fears and secrets. Is this therapeutic, or potentially dangerous, or a combination of the two? How will this openness and directness affect social values and mores?

Beyond the psycho-social concerns are a broader set of political and cultural issues. One that interests us is whether the Internet can contribute to greater civic and political engagement by youth. In his recent book, *Bowling Alone,* Harvard University political scientist Robert Putnam documents how each successive generation of Americans has been less inclined to vote than was its immediate predecessor. He worries that even with the proliferation of news sources in the mass media, young people today "are substantially less knowledgeable about public affairs."[30] A 1999 study found, however, that although young people were in general much less likely to seek out political information than were older cohorts, they were more likely to use the Internet as their preferred means of access.[31] And while voter turnout is lower among young adults, volunteering for community activities among adolescents is on the rise.[32]

With its interactive properties and its ability to foster community and global connectivity, can the Internet rekindle interest and involvement by youth in the political process? What are the connections, in other words, between participation in an online presentation of civic issues and actual engagement in one's own community affairs? While a handful of notable youth media examples exist (e.g., the music industry's "Rock the Vote" campaign, which began in 1990 and helped generate a 20 percent increase in the 1992 youth turnout compared to the previous presidential election), much less is known about whether online political sites actually stimulate—or serve merely as a virtual substitute for—real civic engagement.[33]

Our purpose with this study was not to answer these questions, but rather to help provide a framework to begin addressing them. We believe that understanding the nature of this new digital media culture is a necessary first step in any effort to assess its role in the lives of adolescents.

## Scope and Methods of This Study

In focusing primarily on the content and services for teens on the World Wide Web, we acknowledge that the Internet is only one sector of a much larger new digital media system. We believe, however, that the technological innovation, experimentation, and evolving business practices that are taking place in the online context reveal a great deal about overall trends in the digital media. As more and more household appliances are connected to a digital hub, moreover, and as the use of portable wireless devices proliferates, the distinction between "online" and "offline" will diminish accordingly. Thus we used the Internet as a lens through which we could take a snapshot of this evolving new-media culture.

The dynamic changes occurring on the Internet are part of a much broader set of economic, institutional, and technological forces that are shaping the entire digital landscape. Since we were interested in understanding these larger trends, we also conducted an analysis of the key factors that are influencing the design and direction of the new teen media culture, both on the Web and in other emerging media platforms such as wireless application protocol (WAP) portable devices and interactive television.[34]

Because of the nature of this study, and the sheer size of the World Wide Web (which now runs to well over two *billion* documents), we had to develop some systematic way of approaching our selection and analysis of content and services.[35] We used a combination of several methods to create a core sample that would represent the most popular and prominent teen content areas, along with those that can be found by the "average" teenage user. We identified the most popular and prominent Web sites both by using Nielsen/Net Rating's December 1999 list of the top 15 teen sites, and by reviewing newspaper articles and industry publications.[36] Moreover, in an attempt to simulate the surfing habits of teens, CME's researchers used a number of strategies to identify additional sites. We followed up leads to selected sites from (1) the teen sections of popular Web directories and search engines, such as Yahoo, Hotbot, and Excite; (2) hyperlinks on other teen Web sites; (3) "Web rings" (loose affiliations of related sites) that are targeted at teens; and (4) sites featured in print, radio, television, or online advertisements. Through this process, we generated a roster of 150 teen sites. We then used a combination of quantitative and qualitative analyses to identify and assess the key features of these sites.[37]

We also selected for deeper analysis a number of Web sites, portals, and content areas that were determined to be "emblematic" of trends in the online environment for teens.[38] We identified trends both through the survey of sites themselves and through our reading of industry and popular press. The sites reviewed for this study, in other words, were not intended to be a representative, randomly selected sample. Nor does our study promise to encompass

the entire landscape of online media. Rather, the effort here is to provide a description and analysis of the *nature* of online content designed for teenagers. Also, although the Web is a global medium, we restricted most of our analysis to the content and services based in the U.S. (where most of the innovation has taken place thus far).

Much of our analysis focused on commercial content and services for teens, where the deep pockets of corporate investors and the immediate brand recognition of pop-culture icons have combined to produce a thriving media marketplace. However, we also made a special effort to assess the civic promise of the Internet, by examining efforts outside the commercial sphere, where Web sites are being created under nonprofit auspices and, in some cases, by teens themselves. In this arena, teens are engaging in community-building activities, volunteering for public service, and participating in various forms of political activism. Our efforts to identify noncommercial and civic-oriented sites took us down very different navigational paths than with the commercial sites, for not a single noncommercial site was included on the list of top teen sites in 1999.[39] Thus we sought out these sites through search engines, personal referrals, newspaper articles, and links from other sites.

Another part of our study was concerned with identifying and synthesizing the most recent research on teens and new media. What we found is that while there is a small body of research on the subject, most of the relevant research on how teens actually *use* the new media comes from the commercial market-research sector. Thus we investigated that sector, too, and obtained some of its findings through conferences and trade shows, as well as gleaning other pertinent data from trade publications.

Conducting research on the state of the Internet proved to be a challenging enterprise. Not only were we faced with it its daunting size and reach, but during the period when this study was conducted, the digital landscape itself underwent some major tectonic shifts. America Online's merger with Time Warner, which was finalized in January 2001, was only the most conspicuous example of what has emerged as a trend of media consolidation and convergence, one that will have profound implications for the future of the Internet. (See Chapter 3, "New Trends and Future Directions.") In the latter half of 2000, the economy of the Web plummeted, as venture capital quickly dried up amid projections of less-than-expected revenues. Hundreds of commercial Web sites folded, both well-known and obscure online ventures, including several of the teen sites that were part of our study.[40]

Despite these reconfigurations, major and minor, we believe that we have captured a reasonably accurate picture of the overall trends in this quickly changing environment. And although there were obviously parts of the new digital media culture that we were not able to

look at closely, we believe we have provided a sufficiently wide-angle view of what is available for teens on the Internet to stimulate subsequent, more detailed studies. Those areas of the new teen media that we were able to examine in some detail not only reveal a great deal about the nature of this digital culture, but also set the tone for future developments.

The three chapters that follow look broadly at the digital landscape for teens, focusing on (1) the economic underpinnings of teen Web sites, which include advertising, e-commerce, and market research; (2) the prospects for a teen "civic sector" online, one that subordinates profits to public service; and (3) an assessment of future directions in the new media, as the Internet reaches further into our lives through a variety of wired and wireless devices.

The first chapter, "Commercial Culture Online," examines the thriving new-media environment for teens, ranging from such brand names as AOL and MTV to lesser-known (but equally influential) sites and services such as Snowball, Alloy, and Bolt. Although largely tied to the same icons of popular culture and commerce that characterize teen culture generally, these sites offer unparalleled opportunities for interaction and communication (features that in turn affect the developmental and identity-formation processes of children and teens). Such interactivity, however, is ultimately a two-way street: while it allows teens to express themselves and to reach out to others, it also permits marketers to "mine" this material for insight into teen tastes and interests. In the process, the distinction between online community and digital "brand space" is often obscured entirely.

The following chapter, "The Alternative Internet: A Noncommercial and Civic Web Culture for Teens," looks precisely at the small minority of sites dedicated to maintaining that very distinction. These online communities, from a teen journalism project in Harlem to a collective "diary" for teens around the globe, are committed to the promotion of political, cultural, and civic engagement. Generally nonprofit in nature, these sites' future viability, in an online context that grows more commercial every day, remains in doubt. But the need for contributions to such an online "commons," especially as teens spend increasing amounts of time online, seems beyond dispute.

Chapter III, "New Trends and Future Directions," looks at some of the areas in which technological change will be most profound, including interactive television, wireless communications, and the continued evolution of the World Wide Web itself. In each of these areas, "personalization" of content and marketing alike will play a central role in fueling the growth of the online sector.

The report's concluding chapter, finally, highlights several of the key issues raised in our study, and makes recommendations for both research and public policies that we believe will be necessary if the full promise of the so-called "Internet Century" is to be realized. Interspersed throughout the report are a number of "sidebars" that look more closely at a variety of topics, from adolescent development and academic research to online music and gaming.

## Adolescent Development: Growing Up Is Hard To Do

The term "adolescence" refers to the stage between puberty and adulthood, and is usually thought of as the years between eleven and twenty-one. But there are a variety of markers to define this stage. Some experts, such as developmental psychologist Laurence Steinberg, use chronological age. Other experts use social markers to define adolescence, such as grade in school (usually grades 7–12). Still others look to cultural and religious rites of passage, such as bar mitzvahs.

Recent research has identified three distinct stages within adolescence. Young people in each stage use media differently, based on key developmental characteristics and needs.

- Early Adolescence (ages 10–13). At this stage, children begin to challenge parental authority, as well as rules and values in general. They are acutely aware of their own bodily changes and curious about the physical changes of their same-sex peers. Many teens this age feel enormous uncertainty, which leads to intense information seeking, media use, and experimentation. Early teens are less critical of the media and less concerned with how realistic it is.

- Middle Adolescence (ages 14–17). At this stage, young people spend less time with family and more time with friends and peers. During these years, they are forming an identity, developing a conscience and figuring out sex roles. In addition, they are preparing for future family and civic roles, and developing more sophisticated problem-solving capabilities. Because they've had more experience comparing on-screen images with their real lives, teens at this age are savvier media consumers than their younger counterparts.

- Late Adolescence (ages 18–early twenties). This stage marks the entry into adulthood, when teens more readily accept their parents, as well as parental views and values. Of the three groups, this one is the most selective and critical of the media they consume.[1]

Most scholars, whatever their particular disciplinary roots, regard adolescence as a distinct life stage. Not only do teenagers undergo more physical changes than at any other time in life (except the first two years), they also undergo major spurts of intellectual and social growth. Laurence Steinberg separates this growth into three areas: biological, cognitive, and social.[2]

Although the last two may seem most relevant for understanding teen media use, there is a constant interplay among them all. When hormones and puberty transform an adolescent's body, the psyche is affected as well. The sense of self shifts, sometimes dramatically. All of this affects how adolescents think of themselves, how they imagine others perceive them, and how they behave in the outside world.[3]

The physical changes of adolescence are strikingly visible. Less obvious, but no less significant, are the cognitive changes. Many developmental theorists rooted in the tradition of Piaget describe distinct intellectual abilities that appear during adolescence. One of the most significant is the capacity to think abstractly and to reason hypothetically.[4]

This means that teenagers are able to shift from thinking solely in terms of what is to what could be. They can argue logically and consider the implications and consequences of their own and others' actions. Thus, they are able to think about their own futures (e.g., If ..., then ...) and to be introspective. Many teenagers ponder such questions as, What do I think of myself? They also tend to be self-conscious (What do others think of me?) and to experience metacognition (thinking about one's own thoughts).[5]

Another distinguishing intellectual feature of adolescents is their increased ability to think in relative terms. Situations and solutions no longer appear so strictly black-and-white. As a result, some become quite skeptical and disillusioned with a world that seems imperfect and unpredictable. Adolescents also become better able to look beyond themselves at the complexities of other cultures, relationships, and societies.[6] At the same time, they can be immensely self-absorbed, considering themselves to be totally unique individuals with singular experiences.[7] Alternatively, adolescents often begin to feel as though other people are constantly judging their appearance and behaviors, heightening their sense of insecurity, self-criticism, and self-admiration.[8]

In addition to cognitive growth, adolescents mature socially as well. The most significant shifts usually involve relationships with family and peers. Teens want greater autonomy from their parents and more intimate, complex relationships with peers. Most of these relationships are platonic, but some can be, and frequently are, sexual. At this age, adolescents are very vulnerable to peer pressure. More pressure comes from decisions they face regarding college, career, and family. Responsibilities increase as teens recognize the role they play in shaping their own (and other people's) futures.[9]

All three areas of growth—biological, cognitive and social—fuel one of an adolescent's most important tasks: the quest for identity. In fact, Erik Erikson is one among many developmental psychologists who claim that achieving a coherent sense of identity—answering the question, Who am I?—is the most fundamental task of adolescence.[10] Because this relentless search coincides with a burst of cognitive growth, adolescents are able both to search for self-understanding and at the same time to comprehend the significance of that search.

## Academic Research on Teens and the Media

Particular developmental, cognitive, and social characteristics render adolescents especially vulnerable to media messages. The passage into the teen years is characterized by an increased amount of time and focus devoted to interactions with peers; this increased peer interaction is coupled with a decreased amount of time spent with families and, simultaneously, an increase in time spent alone.[1] The pattern grows throughout the teen years, adding an increased use of media—albeit in an active way for self-concept formation—as a displacement for time spent with parents.[2] Therefore, as the importance of peer interaction expands relative to the decreased emphasis on family interaction and influence, the opinions of the "others" that are the most salient to this group are peers and the representations of peers via media portrayals of teens.

Indeed, a parallel development in the teenage group is a heightened focus on media as a source of social influence. Specifically, the pattern of media use shifts away from passive viewing, in a family setting, into active use and choices of media, both alone and with peers. "[T]he media have become part of the social environment of people of all ages," observe Arnett, Larson, and Offer,

> but their potential role in the socialization of adolescents is perhaps especially strong. Adolescence is a time when important aspects of socialization are taking place, especially with regard to identity-related issues such as occupational preparation, gender role learning, and the development of a set of values and beliefs. However, it is also a time when the presence and influence of the family have diminished, relative to childhood. That certain socialization issues become intensified … may make adolescents more inclined to make use of media materials in their socialization than they would be at younger or older ages.[3]

Despite our inclination to think of "teenagers" as a uniform group of people, we know that they are actually a diverse collection of individuals whose media use differs dramatically. Teens may choose what content they pay attention to from a wide variety of media, including television, radio, film, magazines, and, more recently, videos, CDs, and cable. For some adolescents, digital media have broadened their choices even further. Although individual teens differ in their media use, research suggests that teens begin to spend less time with television and more time with other media, such as music, magazines, and, for those with access, the Internet.[4]

Steele and Brown developed a model to help explain how adolescents, in particular, choose and use media content. These scholars consider media use to be a cyclical process, driven not simply by what is available, but also by how teens make sense of what they see or hear, how they apply it to their own lives, and how it relates to their emerging sense of identity. This model is especially helpful because it assumes that most media use is "active." In other words, adolescents do not merely consume media passively, but rather they make decisions about whether or not to apply or reject some or all of what they pay attention to.[5]

Other researchers have examined adolescents' relationship with media from a "uses" perspective. That is, how do teens use the media? Arnett identified five uses of media by adolescents: entertainment, identity formation, high sensation, coping, and youth culture identification.[6] These uses, Arnett proposed, indicate that "media are part of the process by which adolescents acquire—or resist acquiring—the behaviors and beliefs of the social world."[7] Larson focused on adolescents' private use of the media, paying special attention to the relationship between media and daily emotions.[8] Similar to Arnett's aforementioned concept of "identify formation," Larson found that adolescents frequently use media when they are alone to cultivate a private self. For instance, adolescents frequently listen to music because they can personally relate to the messages in lyrics and because it helps them to differentiate themselves from their families and others. Music also helps them grapple with emotions common to adolescence, such as stress, loneliness, and depression.[9]

Numerous scholars have posited yet another use of media by adolescents: the exploration of possible selves.[10] "Possible selves" refers to individuals' self-conceptions of who they once were, who they now are, and whom they ultimately wish to become.[11] As adolescents grapple with self-definition, they often draw from the media to familiarize themselves with available identities. Markus and Nurius explain:

> An individual is free to create any variety of possible selves, yet the pool of possible selves derives from the categories made salient by the individual's particular sociocultural and historical context and from the models, images, and symbols provided by the media and by individual's immediate social experiences.[12]

Because they are just determining who they are and how they wish others to view them, adolescents often experiment with how they speak, how they dress, where they "hang out," whom they befriend, and how they act based in large part on their media preferences.[13] After looking at teens' bedrooms walls, Brown, et al, concluded that "[Adolescents] use media and the cultural insights provided by them to see both who they might be and how others have constructed or reconstructed themselves."[14]

Not only can adolescents experiment with possible selves through mass media, but they can also signal their affiliation with various subcultures. Arnett, et al, and Steele and Brown have all documented how adolescents use traditional media to convey membership in various social groups.[15] For example, kids who wear T-shirts advertising a particular musician illustrate to others their musical preferences and, consequently, the kind of social group with which they identify.

Overall, it appears that adolescents use the media for a variety of reasons, many of which seem to serve developmentally specific functions (e.g., identity formation). But more research is needed to understand how traditional media uses are altered as the media environment itself becomes both more expansive and complex.