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CHAPTER 1

The Annenberg Media Environment Survey

MEDIA ACCESS AND USE IN U.S. HOMES WITH
CHILDREN AND ADOLESCENTS

□

Amy Bleakley, Sarah Vaala, Amy B. Jordan, and Daniel Romer

In April 1962, months before their city was to host the World's Fair, third-graders from a Seattle elementary school were asked what predictions they had for the twenty-first century (Broom, 2012). Their expectations included personal rockets for space travel, flying cars, and new, futuristic food products. Though one young student did foresee that “you will be able to have a telephone in your pocket” in the new millennium, developments in media technology were largely not considered by these young visionaries. Fifty years later their children and grandchildren likely have much difficulty imagining life in a home with only one television set and four channels, let alone a childhood devoid of computers, tablets, video games, cell phones, MP3 players, and other near-ubiquitous modern technologies.

As media technologies and content have proliferated and evolved over the years, so too have their potential—and the potential pitfalls—with regard to family life and children's development. Decades of research on television, for example, have identified numerous favorable outcomes associated with viewing quality, age-appropriate programming, including improved academic achievement and school readiness skills (e.g., Anderson, Huston, Schmitt, Linebarger, & Wright, 2001; Rice, Huston, Truglio, & Wright, 1990) and positive social-emotional development (Mares & Woodard, 2012). However, the same body of literature also suggests a host of unfavorable consequences of television viewing, such as increased aggression (Huesmann, Moise-Titus, Podolski, & Eron, 2003; Paik & Comstock, 1994); overweight and obesity (Gortmaker et al., 1996; Robinson,

1999); decreased academic performance (Borzekowski & Robinson, 2005; Shin, 2004), and materialism (Buijzen & Valkenburg, 2003). Overall, existing literature indicates that the extent and nature of influence depends on characteristics of the combination of media content, child viewer, and media use context.

Increasingly, scholars perceive the value in understanding the home media context (Clark, 2012). Mapping the landscape of families' home media access and use is critical not only for its own sake, but also to better understand the patterns of use and influence of media among youth. A number of prior studies have shown that the nature of children's home access to media, such as the number and placement of televisions, is related to the amount of time they spend consuming media (e.g., Cillero & Jago, 2010; Jackson, Brown, & Pardun, 2008; Jordan et al., 2010; Saelens et al., 2002). The rules parents set about the amount and types of media content their children are allowed to consume also predicts the extent of children's exposure (Barradas, Fulton, Blanck, & Huhman, 2007; Cillero & Jago, 2010), and are influenced in turn by the benefits and drawbacks parents perceive with regard to children's media use (Valkenburg, Krccmar, Peeters, & Marseille, 1999; Warren, Gerke, & Kelly, 2002). Research indicates that patterns in parents' media use are consistently related to their children's media consumption as well (e.g., Bleakley, Jordan, & Hennessy, 2013; Davison, Francis, & Birch, 2005).

Ecological systems (Bronfenbrenner, 1979) and social cognitive theories (Bandura, 1986) offer insight into these and other observed relationships between structural and relational home environments and youth media use. Ecological systems theory contends that children's lives and development unfold within the "nested environments" in which youth are embedded (Bronfenbrenner, 1979; Jordan, 2004; Takeuchi & Levine, this volume). These environments include children's immediate contexts, such as home and school, as well as broader contexts that may have more indirect influence, such as cultural norms and institutions. Media can influence children's lives and development directly as youth consume and interact with various platforms in their everyday lives. Media can also affect children through more indirect pathways. For example, parents' use of digital technologies in the workplace could influence their use of and attitudes toward media, which could affect the atmosphere of the home as well. Additionally, the surrounding culture relays messages to youth about the value and normative use of media technologies, which can influence their own patterns of use in turn (see Takeuchi & Levine, this volume).

Based on social cognitive theory, youth observe the actions of others around them—in person or via media—as well as the consequences of those actions (Bandura, 1986). The likelihood that a child will imitate the behavior they view depends on various factors including the attractiveness or perceived similarity of the model and the nature of consequences of the behavior to the model

and others around him/her. Considering media use as one such behavior, then, youth may pattern their own media use after the media use they observe among their parents and siblings (see Notten, Kraaykamp, & Konig, 2012). Together, these two theories shed light on the means through which the home environment can socialize children into various patterns of media consumption.

Children and adolescents in the U.S are living in media-saturated homes (Rideout, 2011; Rideout, Foehr, & Roberts, 2010). Parent surveys conducted by the Kaiser Family Foundation (Rideout et al., 2010) and Common Sense Media (Rideout, 2011) indicate that the number of technologies to which youth have access, as well as the amount of time they spend consuming media, increased during the first decade of the new millennium. The present chapter offers an updated snapshot of the media environment and consumption patterns among a national sample of parents with children ages 17 and under. We conducted the Annenberg Media Environment Study (AMES) to update our knowledge of media trends in U.S. households with children since the earlier surveys. AMES was conducted in March 2012 with a national sample of 1,550 parents (54% female) who had children 17 years old or younger. We examined the media technologies available in the home, patterns of media use by parents and their children, and parents' practices and concerns regarding their children's media use in households with children in three age groups: 5 years and younger, 6–11 years, and 12–17 years.¹ Survey questions asked specifically about a "target child" in one of the above age groups (St. Peters, Fitch, Huston, Wright, & Eakins, 1991) because media behaviors and parents' attitudes would most likely vary by child age. Unless otherwise noted, the results we present were weighted to match national household demographics for each age group.

The average age of the parents in the survey was 38.8 years old. The racial/ethnic breakdown of parents in the sample matched U.S. demographic profiles: 64% white, 12% African-American, 17% Hispanic, and 6.5% other. Nearly one-third of parents had a bachelor's degree or more education (32%), 28.9% attended some college, and 39.2% received less than high school or a high school education. The median income level was \$60,000. Forty percent of the households had just one child between birth and age 17 in the home, 39% had two children, and the rest (21%) reported having three or more children living in the home. The majority of respondents were married or living with a partner (86%), and 68% reported being currently employed.

Media Access in the Home

Parents were asked about media that were accessible in different rooms of their homes. Nearly all households had at least one TV in the household (98%), as

well as a DVD player (91%). On average, the households in the sample reported three televisions and two DVD players in the home. Present in 76% of homes, video game consoles were limited to approximately 1 per home (1.2). Most homes also contained a desktop or laptop computer (89%), with families having one or two computers (1.6) on average. Internet access was present in multiple (2.7) rooms. Cable/satellite access, present in 77% of homes, could also be found in multiple rooms of the house on average (2.3).

We were particularly interested in the media available in the target child's bedroom. Access to television in the child's bedroom is associated with heavier television use (Jordan et al., 2010) and the initiation of health risk behaviors in adolescents (Jackson et al., 2008), as well as less physical activity, poor dietary habits, and poorer school performance (Barr-Anderson, van den Berg, Neumark-Sztainer, & Story, 2008). The effects of access to other media in the bedroom are less well studied, but equally important now that television content is available on multiple platforms (e.g., computers). For example, about one-quarter (27.3%) of the teens in this survey who *did not* have a television in their bedroom had a computer there, and 89% of those with bedroom computers had internet access in their bedroom as well.

As shown in Figure 1.1, bedroom media access was highest among 12- to 17-year-olds for every medium. Bedroom television reached 63% of adolescents, with internet access being almost as common (54%). Not surprisingly, internet access was heavily tied to having a computer in the bedroom. For 6- to 11-year-olds and 12- to 17-year-olds, of those with a computer in their rooms, 91% and 92% respectively had access to the internet. Similarly, 85% of those children ages 5 and younger with a computer in their bedroom had internet access in their bedroom as well. Since more youth have internet access than have a computer, it is likely that youth are accessing the web through their smartphones, tablets, or other portable devices (Madden, Lenhart, Duggan, Cortesi, & Gasser,

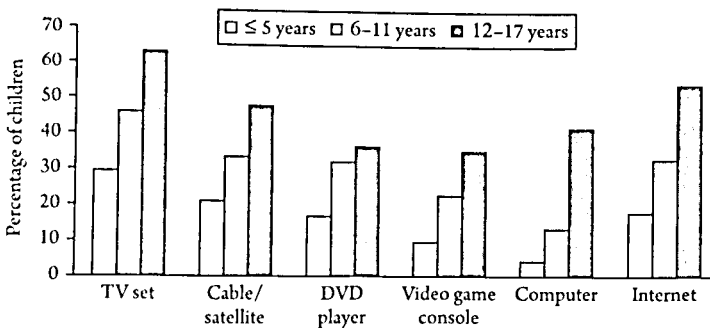


Figure 1.1 Media in Children's Bedrooms.

2013). Notably, although bedroom television sets were less prevalent than in previous surveys, bedroom internet access was higher than in earlier reports (Rideout et al., 2010). For example, in the 2009 Kaiser Family Foundation survey, Rideout and colleagues (2010) found that 76% of 11- to 18-year-olds had a television set in their bedrooms and only 33% of 8- to 18-year olds had bedroom internet access.

The media environment in parents' bedrooms seemed to largely revolve around television sets. Figure 1.2 shows the different media available, with 70% of parents reporting that they have a television in their bedroom. Cable/satellite access and DVD players accompany television access in most cases. And while slightly more than one-quarter of parents had a desktop or laptop computer in their bedroom (27%), 88% of that group also had internet access in their bedroom. Particularly rare were video game consoles, present in less than 10% of parents' bedrooms (8.4%).

In addition to the bedrooms of target children and parents, TV sets and their associated cable access and DVD players were common in the social spaces of the home. Table 1.1 presents data on the media available in different rooms in the home. The distribution of internet access across various rooms of the home is also notable, due likely to wireless internet capabilities and portable media technologies. Just as in the child's bedroom, internet access exceeds the presence of computers, suggesting that many children and adolescents can access online media content throughout their homes (Madden et al., 2013).

Use of new media technologies is also growing in U.S. households with children. Comparisons with prior surveys suggest rates of mobile device ownership are rising, at least among homes with very young children. The Common Sense Media report in 2011 indicated that 21% of children under age 8 had access to a video iPod or similar device, 9% had an e-reader, and 8% had a tablet device such as an iPad in the home (Rideout, 2011). Within the AMES sample, 28% of

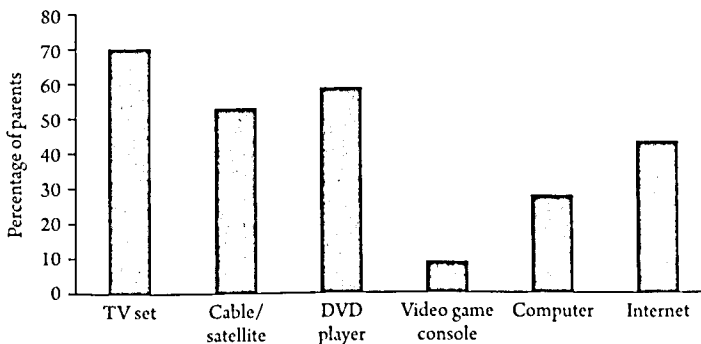


Figure 1.2 Media in Parents' Bedrooms.

Table 1.1 Weighted Percentage of Households with Access to Media, by Room

	<i>Television</i>	<i>DVD Player</i>	<i>Video Game Console</i>	<i>Desktop or Laptop</i>	<i>Internet Access</i>	<i>Cable or Satellite Access</i>
Child's bedroom	48.0	35.7	29.4	23.9	22.4	37.2
Other bedrooms	36.5	20.0	12.3	14.6	28.5	24.2
Family room/den	54.2	46.3	31.1	29.3	42.5	42.3
Living room	62.8	51.7	33.0	28.7	45.8	48.4
Kitchen	8.3	1.6	0.5	5.7	21.8	6.1
Dining room	1.9	0.8	0.7	4.7	20.2	1.8
Other room (home office, garage, bathroom, basement)	19.1	11.0	9.0	24.0	33.4	17.3

children 5 and younger had access to a video iPod or similar device within the home, 20% had an e-reader, and 25% had an iPad or other tablet.

In comparison, 44% of children 8 and younger in the Common Sense Media study owned handheld video game consoles. Similarly, the most common portable media in our survey were handheld video game players, with 72.4% of households with 6- to 11-year-olds and 66.4% of households with 12- to 17-year-olds reporting that they are available in their homes. Thirty-five percent of parents of children 5 or younger also reported owning a video game player, which in households of that age group is as common as a portable DVD player (35.6%) and a DVR (35.5%). Figure 1.3 shows the availability of other new media technologies in households by age group of the target child. Having a DVR, e-reader, and tablet did not vary by child age, indicating that those technologies are perhaps driven by parent use, in contrast to video game players, DVD players, and video iPods or related devices which are most likely used by the (older) children in the homes.

Time Spent by Parents and Children with Major Media Devices

Estimates of time spent by parents and children in watching television, using a computer, and playing video games were based on parents' reports. *Watching television* was defined by the following statement: "When we say TV, we mean TV

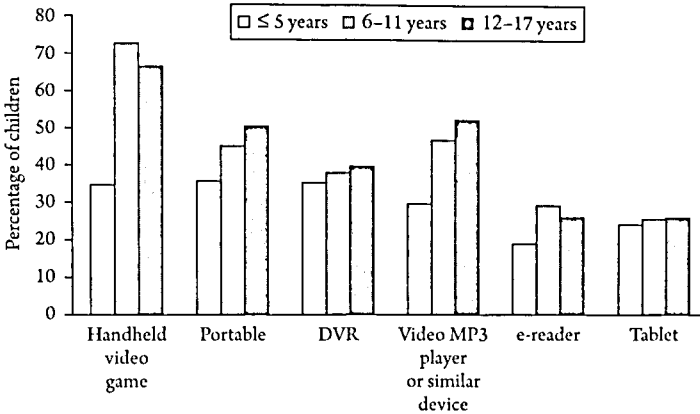


Figure 1.3 New Media Technologies in Children’s Homes.

shows, DVDs, or movies that you watch on a television set or a computer.” *Using a computer* was defined as using a desktop, laptop, or tablet, when not at work or working (for parents) and when not in school (for the target child). Finally, for *playing video games*, we told parents that “we mean those games that are played on a gaming console like PlayStation, Xbox, or Wii or a handheld device like Nintendo DS or PSP.” Parents reported time spent with each device in 30-minute increments in the morning, afternoon, and evening, on a typical weekday (i.e., last Tuesday) and a typical weekend day (i.e., last Saturday). While it is common to use parental reports of their children’s media time, studies have shown that parents tend to underestimate their children’s screen time (Bryant, Lucove, Evenson, & Marshall, 2007; Gortmaker et al., 1999; Jordan, Hersey, McDivitt, & Heitzler, 2006).

Tables 1.2a and 1.2b provide average daily time spent with television, computers, and video games for parents and their children, respectively. Children’s time spent with these devices increased with age, with rates tending to converge with that of their parents for TV and computers. Increased media use

Table 1.2a Parent Average Daily Time (in Hours) Spent with Media

Media	Parents’ Time Overall Mean [CI]	Parents of 5-Year-Olds and Younger Mean [CI]	Parents of 6- to 11-Year-Olds Mean [CI]	Parents of 12- to 17-Year-Olds Mean [CI]
Television	4.07 [3.86, 4.28]	4.19 [3.82, 4.56]	4.21 [3.73, 4.68]	3.91 [3.58, 4.24]
Computer use	2.69 [2.50, 2.88]	2.60 [2.27, 2.92]	2.79 [2.38, 3.19]	2.76 [2.48, 3.04]
Video games	0.71 [0.55, 0.87]	0.67 [0.48, 0.85]	1.24 [0.69, 1.79]	0.47 [0.30, 0.64]

Table 1.2b Parent Estimates of Children's Average Daily Time (in Hours) Spent with Media

<i>Media</i>	<i>Child Time Overall Mean [CI]</i>	<i>Ages 5 and Under Mean [CI]</i>	<i>Ages 6–11 Mean [CI]</i>	<i>Ages 12–17 Mean [CI]</i>
Television	2.81 [2.66, 2.97]	2.34 [2.08, 2.59]	2.83 [2.52, 3.15]	3.31 [3.05, 3.56]
Computer use	1.40 [1.27, 1.53]	0.36 [0.26, 0.46]	1.14 [0.94, 1.34]	2.56 [2.31, 2.82]
Video games	1.12 [0.94, 1.30]	0.43 [0.29, 0.57]	1.44 [0.99, 1.88]	1.60 [1.30, 1.90]

throughout early and middle childhood has generally been found in earlier surveys of youth media use as well (Rideout, 2011; Rideout, Foehr, & Roberts, 2010). The largest difference between age groups was in time spent using a computer, with adolescents spending approximately 3 hours per day, compared to 6- to 11-year-olds, who spent 1 hour and 8 minutes. This difference is consistent with greater reported access to computers in bedrooms among adolescents, as has been found with television (Jordan, et al., 2010). As discussed earlier, 42.3% of adolescents had a computer in the bedroom compared to 13.8% of 6- to 11-year-olds and 4.0% of children 5 and younger.

Parents only played video games at the same rate as their children in the 6- to 11-year-old age range: almost 1 hour and 15 minutes per day. However, parents of adolescents only played about 28 minutes a day, while their adolescents played at about the same rate as the 6- to 11-year-olds. It could be that video game playing is a more social, family-centered activity among families with 6- to 11-year-olds, and becomes more of a socially isolated activity in adolescence. This pattern may also reflect parents' greater concerns about possible harmful effects of video games on younger children compared to older adolescents, which may lead them to engage in more mediation of content when their children are younger.

Home Media Practices

The survey examined media practices in the home with regard to background television and screen time before bed. Background television, or having the television on when the child is not directly watching, is associated with several adverse outcomes in younger children, such as reduced social interaction and play behavior (Kirkorian, Pempek, Murphy, Schmidt, & Anderson, 2009; Schmidt, Pempek, Kirkorian, Lund, & Anderson, 2008), reduced executive function (Barr, Lauricella, Zack, & Calvert, 2010), and disrupted cognitive

skill development (Barr et al., 2010). It is hypothesized that background television acts as a distraction from focused play by creating background noise and also may draw parents' attention away from their children (Kirkorian et al., 2009).

Another media practice is eating meals with the television on, which has been linked to unhealthy eating behaviors (Bellissimo, Pencharz, Thomas, & Anderson, 2007; Coon, Goldberg, Rogers, & Tucker, 2001; Fitzpatrick, Edmunds, & Dennison, 2007). Studies suggest that television interrupts individuals from recognizing physiologic cues about their satiety (Bellissimo et al., 2007). The relationship between eating with the television on and unhealthy eating could also be the result of exposure to television content that discourages the consumption of healthy foods; it may also indicate a larger family dynamic that could explain the association (Coon et al., 2001). Additionally, screen media before bedtime has been linked to poor sleep outcomes (Eggermont & Van den Bulck, 2006; Zimmerman, 2008). It is hypothesized that the brightness of the screen, whether it be a screen from a television, computer, or some portable device, suppresses melatonin production, a hormone that aids in bringing about sleep (Zimmerman, 2008).

To measure background television, parents were asked how often a TV was on in their home even if no one was watching (Vandewater et al., 2005), and how often TV was on in their home during meals. Response options for both items were as follows: never, a little of the time, some of the time, and most of the time. Figure 1.4 shows, by child age, the percent of parents who answered "most of the time." Approximately one-quarter of households across all child age groups reported the television being on in the background most of the time. Notably,

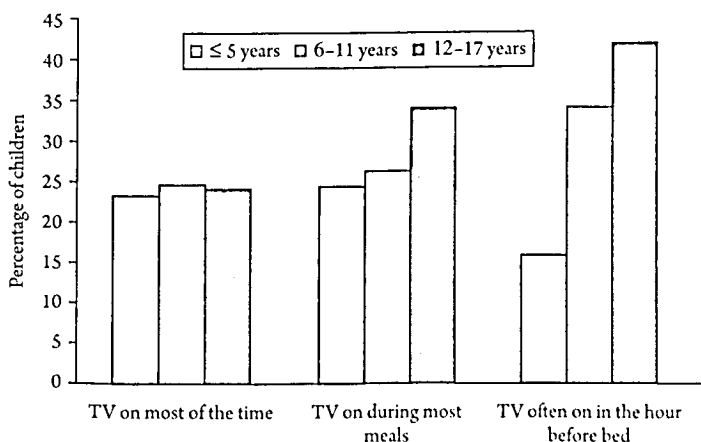


Figure 1.4 Household Media Habits.

this incidence is lower than the most recent prior surveys, which indicated that 39% of homes with children whose ages range from newborn to 8 years old (Rideout, 2011) and 45% of homes with children between the ages of 8 and 18 have the television on at least most of the time even when no one is watching it (Rideout et al., 2010). The television being on at mealtimes, also shown in Figure 1.4, is higher for families with adolescents than for families with younger children. However, given that only 8% and 2% parents report having a television in the kitchen or dining room, respectively, it seems likely that eating might be happening in other areas, or that the television is simply on in another room while the family eats in the kitchen or dining room.

We also asked about the use of any screen media (i.e., watching television or a movie; playing a video game; going on a computer; reading a book on an e-reader; or talking, texting, or going online with a cell phone) in the hour before bedtime. Parents reported that their adolescent children were more likely to use screen media “often” (compared to never, rarely, or sometimes) in the hour before bedtime than parents with younger children (see Figure 1.4). In other words, children’s bedtime screen media use increased with age: from 15.8% among children 5 and younger, to 34% of 6- to 11-year-olds, and 41.8% of adolescents. This trend suggests that adolescents may be more at risk of sleep disruption due to screen exposure prior to bedtime.

Parental Concern about Media

We were interested to learn more about how concerned parents were about their children’s media use. In addition, beliefs about media held by their parents are an important part of a child’s media socialization. As one aspect of the home media ecology, parents’ beliefs about children’s media may affect their behavior with regard to children’s media consumption (e.g., restricting children’s viewing of certain types of content). We asked parents about how concerned they were (not at all, not really, somewhat, or very)—specifically with regard to their (target) child’s exposure—about media content from various sources, issues specific to internet use (e.g., online bullying), and the use of mobile devices.

Table 1.3 displays the percentage of parents, by their child’s age group, who reported that they were “very concerned” about each of these domains. In general, the extent of parents’ concern about what their children are exposed to and the time they spend with media was less for adolescents than for younger groups. In addition, parents of children older than age 5 were more concerned about what their children may see on the internet than on TV or in movies. Moreover, concern about internet issues such as seeing inappropriate content, experiencing online bullying, being exposed to a predator, or receiving sexually explicit

Table 1.3 Weighted Percentage of Parents “Very Concerned” about Media Content, Internet, and Mobile Use

	<i>Parents of 5-Year-Olds and Younger %</i>	<i>Parents of 6- to 11-Year-Olds %</i>	<i>Parents of 12- to 17-Year-Olds %</i>
<i>Media Content Concerns</i>			
What child sees on television	34.5	34.6	19.2
What child sees at movies	25.3	31.8	19.0
Video games child plays	20.5	20.8	12.0
Computer games child plays	21.2	25.3	13.3
Magazines child reads	19.1	21.0	12.4
Content of books child reads	19.5	20.9	13.4
Music lyrics child listens to	23.9	28.2	19.4
<i>Internet Concerns</i>			
What child can see on internet	28.4	47.8	31.2
Child could be target of online bullying	19.5	31.1	21.4
Child could be exposed to predator	26.1	45.5	37.6
Child could receive sexually explicit pictures	24.4	37.0	31.4
<i>Mobile Use Concern</i>			
Time child spends talking and texting on phone	13.3	16.2	15.5

pictures was highest among parents of 6- to 11-year-olds. This pattern in parents' concerns according to their children's age is counter to the trend reported in a 2007 Kaiser Family survey of parents with children from 2 to 17 years old, which found that parents' concerns about the negative influence of media rose as children grew older (Rideout, 2007). Again, this divergence may reflect methodological differences or changes in parents' concerns about media.

Another common concern among parents is that media use may decrease the time their child spends reading. Fifty-three percent of parents with a 6- to 11-year-old and 50% of parents with an adolescent agreed that television viewing would decrease reading time. The concern was not limited to television, however. Among parents of 6- to 11-year-old children, 41.6% agreed that internet use

would decrease the time their child spent reading, and 45.6% thought the same of video game playing. Adolescents' parents had similar levels of concern: 48.8% and 41.6% thought that internet use and video game playing, respectively, would displace reading.

There has been increasing concern about adolescents' exposure to video games, because many of these games involve violent content (see Chapter 7 by Prot and colleagues, this volume). Age- and content-based media ratings exist in part to help allay parental concern, and to help parents make informed choices about their children's media exposure. However, the different rating systems that exist for television shows, movies, music lyrics, and videos games have often been a source of confusion, about both the application of the ratings and whether or not parents find them helpful (Strasburger, Wilson, & Jordan, 2009). Indeed, violent content has been increasing in popular movies, with little difference between films rated as appropriate for children ages 17 and older (R) and those rated as appropriate for children 13 and older (PG-13) (Nalkur et al., 2010).

We asked parents in our sample how useful (not at all, not too, somewhat, very) the different rating systems were in helping to guide their family's choices. As shown in Table 1.4, less than 40% of parents overall found any of the rating systems "very useful." The percent of parents overall who found the ratings systems "very useful" was less than what has been reported in previous studies (Rideout, 2007). In analyses of a 2006 survey, Rideout (2007) found that 49% of parents with children ages 2 to 17 years found television ratings to be "very useful." For ratings of movies, video games, and music, the percentages of parents who felt the same were 53%, 58%, and 56%, respectively. Compared to other parents, more parents of 6- to 11-year-olds found the ratings to be "very useful."

Table 1.4 Weighted Percentage of Parents Who Find Ratings for Media "Very Useful" by Age of Child

	<i>All Parents %</i>	<i>Parents of 5-Year-Olds and Younger %</i>	<i>Parents of 6- to 11-Year-Olds %</i>	<i>Parents of 12- to 17-Year-Olds %</i>
Television ratings	27.4	27.8	35.8	22.0
Movie ratings	39.2	37.2	51.7	33.2
Music advisories	27.8	25.9	38.8	22.5
Video game ratings	34.3	32.2	47.9	26.5

Discussion

At a time of emerging new technologies and shifting media landscapes, AMES survey is a unique and up-to-date snapshot of the home media environments of children and adolescents. By providing data on the time youth spend with media in the context of household access, family practices, and parental media habits, we highlight key points from our findings on the various influences that shape media use among children and adolescents.

Youth of all ages are growing up in homes containing many and diverse media technologies. Our data confirm what may seem obvious: most households offer youth access to a range of traditional and new media. Interestingly, the average number of traditional media technologies, such as television sets, computers, and video game consoles, were slightly lower in the homes of the families that comprise our sample compared to national estimates from 2009 (Rideout et al., 2010). This may be due to increasing rates of ownership of mobile digital technologies, such as tablets, e-readers, handheld video game devices, and smartphones. Our analyses also suggest changes in youth bedroom media. Compared to reports from several years ago (Rideout, 2011; Rideout et al., 2010), our study finds fewer children and adolescents have a bedroom TV. However, the rates of bedroom computer and internet access seem to be increasing. As discussed by Sonia Livingstone (Chapter 8, this volume), this growth is noteworthy as internet-capable technologies provide youth with access to unique activities, such as social networking and instant messaging, while also serving as an alternative means for viewing television and video content.

Children's age is an important factor in their access to and time spent with media. Based on parents' estimates, both access to and time spent with television, computers, and video games increase as children get older. The role of age could be attributed to developmental differences, demands on their free time, or parents' ideas about the vulnerability of younger versus older children to potential adverse outcomes associated with media use. The higher rates of bedroom media and mobile media access in adolescence suggest that older children have more access to independent, unsupervised media use. Though television viewing still dominates their time spent using media, there are increasingly diverse ways in which teens access the internet, both at home and elsewhere. While the present study combines viewing of television content across platforms, research suggests that as much as 20% of media use among 8- to 18-year-olds occurs on mobile devices, with an additional 11% consisting of traditional media (e.g., television content, music videos) viewed on computers (Rideout et al., 2010). The development of media use habits during these years is particularly informative given that media use in adolescence is predictive of media use in adulthood (Hancox, Milne, & Poulton, 2004; Rideout et al., 2010).

Parents' concern about media content and its effects on their children is highest for parents of youth in middle childhood. Although adolescents have the most access to media and spend the most time with media, concern about media content and other issues is greatest among parents of 6- to 11-year-olds. Perceived usefulness of the ratings systems is also highest among parents of this age group, and supports the notion that parents may perceive youth at this age as more vulnerable and more impressionable than older children, or children under 5 whose media exposure is largely under parental control. Nevertheless, current ratings systems do not appear to be very helpful to most parents and, given their variation across media, they may be a source of confusion. Follow-up research is needed to determine whether parents would use more helpful ratings systems and how parents mediate their children's media use across age groups.

Youth spend many hours of their time outside of school with media. The American Academy of Pediatrics recommends that children over the age of 2 spend no more than two hours per day with noneducational or entertainment screen media (AAP, 2013). The results from this study indicate that only 34% of children older than 2 years are using screen media less than 2 hours per day. While the time estimates from AMES presented here do not take into account the *content* of the media (i.e., educational versus entertainment), other surveys have found that children's time with media consists primarily of entertainment media consumption (Anderson et al., 2001; Bickham et al., 2003; Rideout, 2011). As noted by Borzekowski (Chapter 3, this volume) and Harris (Chapter 4), the amount of time youth spend with media can have consequences for their physical well-being, for example. However, media content is a key determinant of numerous learning and behavioral outcomes (e.g., Anderson et al., 2001; Gottfried, Vaala, Bleakley, Hennessy, & Jordan, 2013; Romer, Bagdasarov, & More, 2013). Elsewhere in this volume authors consider the nature of the content with which children engage when examining specific outcomes such as sexual initiation (see Brown, El-Toukhy & Ortiz, Chapter 6, and Nightingale, Chapter 13) and academic learning (see Wartella & Lauricella, Chapter 11, and Calvert & Richards, Chapter 12).

The estimates of media use presented in this chapter do not account for the simultaneous use of multiple media, or media multitasking. Studies have reported that, on an average day, most youth (upwards of 80%) engage in multiple media use. Moreover, their media use is often in addition to another non-media activity, such as homework (Foehr, 2006; Roberts & Foehr, 2008). A substantial percentage (24–39%) of youth report that they engage in media multitasking “most of the time” that they use media, depending on the specific media in question (Foehr, 2006). The measurement implications of multiple media use present many challenges to researchers, and are often not carefully considered. Furthermore, the effects of using multiple

media simultaneously on physical and behavioral outcomes are not yet well understood. Some studies suggest that media multitasking is associated with reduced attention and ability to filter distractions (Ophir, Nass, & Wagner, 2009) as well as a higher incidence of depression and social anxiety (Becker, Alzahabi, & Hopwood, 2013).

Parents spend a lot of time with media, regardless of their child's age. Some of the most interesting findings from AMES concern parental time spent with media, the inclusion of which is a unique feature of this survey data. Parent time with television is the same regardless of their child's age, but video game playing has a different pattern. Understanding parents' time with media is imperative because we know that parents' time with media is related to children's time, both among younger children (Bleakley, Jordan, & Hennessy, 2013; Davison et al., 2005; Hardy et al., 2006; Jago, Fox, Page, Brockman, & Thompson, 2010; Jago et al., 2008) and adolescents (Barradas et al., 2007). As social cognitive theory suggests, parents may model media behavior that their children begin to imitate over time (Bandura, 1986). Additionally, an ecological perspective of media use highlights the importance of household media use in the fabric of everyday family life (Bronfenbrenner, 1979).

Conclusion

As media technologies continue to evolve and youth continue to adopt them into their daily lives, it will be critical for researchers to develop innovative ways to capture an accurate picture of their daily media use. Such media use includes unprecedented use of cell phones and smartphones, which are replacing desktops and laptops as adolescents' primary devices to access the internet (Madden et al., 2013). As youth incorporate new platforms, devices, and technologies into their lives, one of the many challenges facing researchers is to understand the nature of and implications of such use in a timely way. However, understanding the environments and family dynamics that pertain to youth media use in its various forms helps to create the knowledge base necessary to realize the intervention potential of media in its various forms.

In addition to the role they play in the lives of youth, new technologies allow researchers to track the internet sites youth visit, the amount of time they spend on each site, and where they click on the screen (Vandewater & Lee, 2009). Modern study participants can also wear digital technologies that track and translate the video media they are exposed to throughout the day. Smartphone apps could be designed to enable more accurate experience-sampling methodologies; for example, because cell phones typically travel everywhere with their owners, an alarm in the phone could cue respondents to record and describe their current media use using the app. A limitation of traditional surveys such

as AMES lies in the fact that parents often underestimate reports of their children's time spent with media (Bryant et al., 2007; Christakis & Garrison, 2009; Gortmaker et al., 1999; Jordan, Hersey, McDivitt, & Heitzler, 2006). Moving forward, alternatives to self- or parental reports need to be explored.

Although the results presented here are descriptive, they offer a foundation for pursuing richer, more detailed inquiries on the relationships among these structural and relational aspects of the home media environment. There is no question that media have become prominent in children's lives; as such, media use constitutes a prime context, much like home or school, through which youth learn, play, and develop. Understanding how the rapidly evolving media landscape affect children's development will require continued effort and innovative approaches from researchers, as well as clinicians, policy-makers, and child advocates.

Notes

1. Respondents were selected from an online probability panel (KnowledgePanel) recruited by GfK. The panel is designed to be representative of adults (ages 18+) in the United States. GfK relies on probability-based sampling to recruit households to the panel. Households are provided with access to the Internet and hardware if needed. Panel members are recruited through national random samples, originally by telephone and now almost entirely by postal mail. KnowledgePanel recruitment uses dual sampling frames that include both listed and unlisted telephone numbers, telephone and non-telephone households, and cell-phone-only households, as well as households with and without Internet access. Thus, KnowledgePanel members could have been recruited by either the former random digit dialing sampling or the current address-based sampling methodologies. AMES respondents were randomly selected from three separate population groups from the KnowledgePanel (parents of children 5 years or younger, parents of children 6-11, and parents of adolescents 12-17). The survey response rate was 50% for the main sample. Separate post-stratification weights were applied when analyzing all parents as a group and when analyzing parents by their child's age group. The respondents were weighted to be representative of the U.S. population for their particular group based on the demographic and geographic data from the Current Population Survey (CPS). The data were weighted based on the following variables from (CPS): gender, age, race/Hispanic ethnicity, education level, census region, metropolitan area, and household income. The survey took approximately 17 minutes to complete.

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