CHAPTER ONE

The Changing Media Landscape

Of the many technological innovations the United States has witnessed during the latter half of the twenty-first century, arguably none have been more important in the lives of children and adolescents than the emergence and evolution of the new communication technologies. In a little over 50 years, we have moved from a media environment dominated by local newspapers and radio stations to one characterized by an almost continual diet of highly vivid, on-demand, audiovisual images, many with interactive capabilities.

Readers nearing retirement age probably recall a childhood media environment consisting of magazines and newspapers, radio (drama, game shows, music, 5-minute news broadcasts), possibly a phonograph, and an occasional Saturday matinee at a neighborhood movie theater – with two or three television channels perhaps joining the mix during adolescence. In contrast, most of today's high school students cannot recall a time when the universe of television channels was fewer than three dozen (even without cable or satellite, many homes can receive more than 20 broadcast channels), and their younger siblings have never known a world without interactive video games, personal computers, the World Wide Web, and instant messaging. Older readers probably remember when chocolate syrup dabbed on a shirt sleeve served convincingly as blood in Gene Autry westerns; youths today take for granted films and video games in which blood, gore, and severed limbs complete with spasmodic nerve endings are the norm. Some of us can still recall a time when adults were assumed to be advertisers' only targets and companies such as 3M and General Electric sponsored *The Mickey Mouse Club*. Today's teenagers, who spent in excess of

$155 billion in 2000 (Teens spend . . . , 2001), have never known a time when they were not viewed as consumers, thus when substantial portions of media and media content were not tailored expressly for them (Pecora, 1998).

In this modern media environment, how much time do American children devote to each of the different media? What content do they encounter, select, or ignore? What are the social conditions under which they consume different kinds of media content? Do different subgroups of youth select different media mixes? Do media-use patterns differ within different subgroups?

The importance of such seemingly straightforward questions cannot be underestimated. Without an accurate mapping of children's and adolescents' patterns of media use, we can never fully understand the role of mass mediated messages in the lives of youth. At bottom, any statement about how media content affects what youngsters believe and how they act rests on an assumption that those youngsters are exposed to the message. But what is the basis for such an assumption? Do we really have an accurate picture of children's and adolescents' patterns of media use?

Literally hundreds of empirical studies conducted over the past half-century leave little doubt that, given exposure, media content can and does influence youngsters' beliefs, attitudes, and behaviors. Indeed, the evidence is so ample that few mass communication scholars hesitate to list mass media as equal in importance to most other socialization agents (e.g., parents, schools, churches) in the lives of contemporary U.S. children (see, e.g., Calvert, 1999; Christenson & Roberts, 1998; Comstock, 1991; Strasburger & Wilson, 2002). This same body of research also tells us that the nature and degree of media influence depends on a wide array of factors, not the least of which are the various facets of media use characterized in the questions posed above: media choices, media mix, media time, content selection, consumption conditions, subgroup characteristics.

What is surprising, given the growing concern with the role of media in children's lives and the large number of empirical studies examining children and media, is the absence of comprehensive, current information about overall media use patterns among contemporary U.S. youth. In spite of numerous studies of young people's consumption of various individual media available today, we are aware of no research that has examined use of the full array of media among a representative sample of U.S. youth, let alone how young people have accepted,

adopted, and begun to use the new media that have emerged over the past few years.

The Changing Media Landscape

Over the past several decades, young people's media environment has changed in several ways, each of which has affected the kinds of information available and/or how youth interpret that information and integrate it into their belief systems. Changes include increases in both the number and kinds of media available, in the number of choices each medium offers, in the fidelity with which symbols and images can be transmitted, and in the degree of privacy with which each medium can be experienced.

Clearly, the number of different kinds of media through which youngsters acquire information has exploded. The first large-scale examinations of children's media use in North America, conducted in the late 1950s and 1960s (e.g., Lyle & Hoffman, 1972a, 1972b; Schramm, Lyle & Parker, 1961; Steiner, 1963), needed to survey only a few media: television, radio and records, print (newspapers, magazines, books), and movies. By the 1980s, however, the media landscape looked quite different. By then it included broadcast, cable, and satellite television, the VCR, newspapers, a growing number of books and magazines aimed specifically at children and adolescents, numerous audio media (e.g., stereo systems, portable radios, tape and CD players), video games, and the personal computer (see Dorr & Kunkel, 1990). At the dawn of a new millennium, the media environment continues to change. Entire television channels now target children or adolescents. Both audio systems and video games have become miniaturized and highly portable. The personal computer now includes CD-Rom and DVD capabilities and serves as a gateway to the World Wide Web, and seemingly unlimited access to any and all human information. Technological advances have put young people in constant contact with their peers via cell phones, instant messaging, e-mail, and pagers. Cellular phones have merged with the World Wide Web, and mainstream virtual reality media loom just ahead.

Not only have new media appeared, but older media have evolved, offering more channels more vividly than ever before. In the mid-1950s, major television markets typically boasted five or six broadcast channels; today, cable and satellites make literally hundreds of channels a possibility in even the most isolated locations. At the half-century mark, a

few of our larger cities hosted as many as eight or ten AM radio stations. In August 2001, the radio guide in San Francisco listed 28 AM and 45 FM stations. In the early 1950s *Billboard* magazine reported separate charts for three categories of music recordings; *Billboard* today charts more than 20 music genres. As recently as 1985, most personal computers were limited to whatever software one loaded on them; today they serve as portals to a worldwide network of content so vast and fluid that it is almost impossible to describe.

Along with rapid growth in media channels, digital technology is dramatically altering media experiences, providing sights and sounds that equal or – some would argue – surpass reality. Today's audiences hear orchestras in their own homes with the fidelity of the concert hall; they experience space travel in movie theaters so real that it can engender motion sickness; almost any screen they turn to can portray violence and mayhem so vividly that it leaves viewers ducking to avoid being spattered. And finally, the new interactive media have transformed listening and viewing audiences into active participants. Children no longer simply watch actors shoot at each other; they now take part in the action, blasting anything on screen that moves.

There is also good reason to believe that the proliferation and miniaturization of communication devices themselves is changing the social context of media use, turning what was once a family experience into an activity that, for many youngsters, is more and more private. The findings we report in this study show that almost nine out of 10 U.S. households (88%) have two or more television sets (61% have three or more), and about half of all children (54%) have a television in their bedrooms. Similarly, it is a rare adolescent who does not own a radio *and* a CD or tape player, also typically used in private, whether in the bedroom, the automobile, or through personal headphones. Nearly seven out of 10 (69%) households with children under 18 own a computer, and just under half (45%) have Internet access. Often youngsters sit at the computer terminal alone, many in the privacy of their bedrooms. In other words, although it has always been possible for youth, especially adolescents, to engage in various kinds of media use with some degree of privacy, the new media appear to have given today's kids a great deal more autonomy in their media selection, and a great deal more freedom from adult supervision of or comment about the messages they receive than was the case in even the very recent past. Moreover, continuing advances in miniaturization and portability (e.g., cell phones with Internet access) suggest that media experiences are likely to become even more private.

For much of the latter half of the twentieth century, then, and particularly during the last two decades, North American children's media environment has undergone revolutionary change. Today's youth have access to more media with more channels or outlets within each medium, offering more (and more varied) content, more vividly than even the most "outlandish" midcentury science-fiction novels once predicted. And perhaps most important, technological changes and contemporary social trends may be combining to create a media environment in which youth use these media largely independent of adult supervision or comment – indeed, often in the absence of adult awareness.

Children and Media: A History of Concern

Expressions of concern about children and media – or, more accurately, about content from "outside" that media make available to children – can be traced back at least to Plato's defense of censorship in *The Republic*. They have continued with the introduction of each new medium. Regardless of historical period, whenever children have acquired access to "stories from outside" – whether from a storyteller, a book of fairy tales, or a screen of any kind – parents, educators, and social critics have worried (Roberts, 2003; Starker, 1989). Concern mounted significantly, however, with the introduction of electronic media (e.g., motion pictures and radio), and especially with the introduction of television in the 1950s. Electronic media, but particularly television, gave children both physical and psychological access to a much wider array of content than ever before available. Between 1948, when there were barely 100,000 television receivers in the United States, and the end of 1959, when seven out of eight homes (about 50 million) had acquired a TV set, young people entered a new world. Television was new in terms of the amounts and kinds of information, ideas, and images made easily available, and in terms of allowing children's growing "information independence" – that is, their ability to access and process such information freer from adult supervision than in any previous period. In the course of that single decade, the media environment changed from one in which parents could serve as relatively effective gatekeepers to one in which the gates began to leak at ever more alarming rates.

Prior to television, parents could exert at least some control over children's access to messages. The seven or eight years it took most children to learn to read provided time for parents to establish the "cognitive

templates" that their offspring used to interpret the meaning of print and audio symbols. Television was different. With its easily accessed, easily interpreted audiovisual symbols, it created a new kind of symbolic environment. Once in the home, television was on much of the time (in some homes, most of the time). It provided even very young children both physical and psychological access (three-year-olds can operate the TV set and have little difficulty making some kind of sense of audiovisual symbols) to numerous stories from "outside" the home well before parents had time firmly to establish baseline definitions of the world. (Although motion pictures were available to youngsters before 1950, it was an unusual child who spent more than a couple of hours a week in a movie theater, and it was a time when most youngsters still asked parents for permission and money to attend the movies.) Small wonder that parental worry about the potential impact of content over which they had little or no control increased substantially during television's first ten years (Roberts, 2003), and continues to this day (Kaiser Family Foundation, 2001; Kaiser Family Foundation & YM Magazine, 1998).

Small wonder, too, that this same decade saw the real beginning of what has become a long tradition of scientific study on children and media, a tradition that has demonstrated clearly that media messages can influence children's and adolescents' beliefs, attitudes, and behavior across a wide range of topic areas. Although the 1930s had witnessed a brief spate of research activity concerned with motion pictures and youth (Charters, 1933), it was not until television had moved into a majority of U.S. households that sustained scientific examination of whether and how constant audiovisual images might influence youth took hold. Over the ensuing half-century, literally hundreds of studies examined media influence on children and adolescents.

Research concerning media effects on youth has proceeded from several different theoretical perspectives, but they assume in common that a necessary condition for any influence is some level of exposure. At issue, however, is how exposure is conceptualized and the degree to which amount of exposure and/or different exposure conditions play a role in the media effects process. On the one hand, as little as a single viewing of a brief screen display has been shown to influence young people's beliefs, attitudes, and behavior. On the other hand, both longitudinal field experiments and survey studies that attempt to measure typical media exposure over time have demonstrated that while for some youngsters effects occur following multiple exposures, for others even long-term

exposure seems to have little impact (for reviews, see Comstock, 1991; Strasburger & Wilson, 2002).

Numerous experimental studies have documented that a brief exposure to screen portrayals affects children's beliefs and behaviors. For the most part, the experimental work has proceeded from either of two theoretical orientations: (1) Albert Bandura's social cognitive theory, particularly parts of the theory that concern observational learning processes (Bandura, 1986, 2002), and (2) "cognitive neo-associationist" examinations of how media portrayals may operate to "prime" other semantically related concepts and emotions, thereby influencing viewers' behavior (e.g., Berkowitz, 1984; Jo & Berkowitz, 1994; Josephson, 1987). Once early experiments had demonstrated that exposure to behavior portrayed on a screen can influence young viewers, subsequent research focused largely on how different attributes of a particular portrayal (e.g., Is an act portrayed as rewarded or punished? Justified or unjustified? Is there repetition?), of particular audience members (e.g., Are they boys or girls? Children or adolescents? Similar or dissimilar to the actors? From family environments that encourage or discourage exploration of new ideas?), and of particular reception conditions (e.g., Does the child watch alone, with peers, or with parents? In a public or private venue?) operate to mediate different effects of media exposure. By and large, this work has produced ample empirical evidence that, *assuming exposure*, media messages play a significant role in the socialization of youth (for reviews, see Bushman & Anderson, 2001; Calvert, 1999; Christenson & Roberts, 1983, 1998; Comstock, 1991; Comstock and Scharrer, 1999; Federman, Carbone, Chen & Munn, 1996; Huston, Donnerstein, Fairchild, Feshbach, et al., 1992; Paik & Comstock, 1994; Roberts, 1993, 2003; Roberts & Maccoby, 1985; Strasburger & Wilson, 2002; Wartella & Reeves, 1987). Unfortunately, outside the laboratory, assumptions about the amount or nature of exposure may be invalid, and factors that do not operate under experimental conditions may play an important role in mediating or moderating the effects of media exposure.

A third theoretical approach, George Gerbner's cultivation theory, posits that beliefs and attitudes about the real world are influenced by how television (or, theoretically, any other dominant medium) portrays the world as a rather straightforward function of amount of exposure (e.g., Gerbner & Gross, 1976; Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). That is, cultivation theory posits that the more people (whether children, adolescents, or adults) attend to television's portrayal of the world, the more likely they are to accept that view as valid. Not

surprisingly, one of the more hotly debated dimensions of Gerbner's work concerns the nature of exposure. Numerous questions about whether all exposure is equal, whether all content is equal, what constitutes heavy or light viewing, and so forth, have been raised (e.g., Gerbner, Gross, Morgan, & Signorielli, 1981; Hirsch, 1980; Potter, 1993). These are all issues that point to the importance of understanding audience exposure to media messages.[1]

In short, an important key to understanding media effects is understanding media exposure. If we are to integrate results from experimental studies of media effects on young people with data from surveys and field studies, then we need to map media exposure very carefully.

Previous Research on Children's Media Use

Surprisingly, in the midst of the growing body of research on youth and media there remain significant questions about real-world patterns of media use – questions regarding which kids encounter which messages, how often, from which sources, and under which conditions. Even more important given the explosion in new communication technologies and the evidence that youth are often among the early adopters of these new technologies (Center for Media Education, 2001), we know relatively little about how kids mix and balance the wide array of media available to them today. For example, might a youngster's fascination with the World Wide Web lead to a reduction in television viewing time? Do kids who read a lot ignore television?

Even though children and media have been a research focus for almost half a century, and even though a full understanding of the role of media in the lives of youth requires careful documentation of how they use each different medium, most of our information about children's media use patterns comes either from relatively small, nonrepresentative samples of U.S. children or from studies that have focused on relatively few media. A few recent national sample surveys have asked questions about children's use of several different media (e.g., Bower, 1985; Horatio

[1] Recently, Zillmann's exemplification theory has begun to explain the processes that might underlie cultivation effects, fundamentally by pointing to the power of examples, particularly concrete examples, of any issue to influence one's conceptualization of that issue. Concepts such as frequency and recency of exposure and concreteness of exemplars lie at the core of his theory – all concepts that point to the importance of mapping complex patterns of media exposure (Zillmann, 1999, 2002).

Alger Foundation, 1996; Kaiser Family Foundation & YM Magazine, 1998; Stanger, 1997; Stanger & Gridina, 1999), but these are more the exception than the rule. The majority of academic studies of children's use of media also tend to focus on just two or three (e.g., television, radio, computers) and to use small, and/or nonrepresentative samples of young respondents. Thus, for example, academic researchers often base conclusions on such samples as junior high school students in the southeast (Brown, Childers, Bauman & Koch, 1990), sixth and tenth graders from Michigan (Greenberg, Ku, & Li, 1989), high school students from the San Francisco Bay area (Roberts & Henriksen, 1990), or 6- through 12-year-olds from Portland, Oregon (Christenson, 1994).

We have found no study in the public domain that has surveyed a large, representative sample of U.S. youth *and* that has included items concerning a full array of media and media behaviors – that is, questions about amount of use, content selection, the social context in which use occurs, and the interrelationships among television (broadcast and cable), videos, motion pictures, radio, CDs and tapes, print (newspapers, magazines, books, comic books), video games, and the computer (including games, the Internet, and the World Wide Web).

Two of the most comprehensive U.S. studies of young people's media use were conducted in the late 1950s and the late 1960s. They offer insights into media use patterns of young people in the middle of the twentieth century, before many of today's communication technologies had been introduced. We know, for example, that by the end of the 1950s, sixth-grade children (12-year-olds) from the Rocky Mountain West were devoting about 3 hours per day to television and almost an hour and a quarter to radio and recordings (Schramm, Lyle, and Parker, 1961). A decade later, Los Angeles 12-year-olds reported 4 hours of daily TV viewing, and Los Angeles 16-year-olds claimed about 2 hours of daily music listening (Lyle & Hoffman, 1972a). Although dated, these numbers are remarkably similar to television and music use estimates obtained from today's young people.

More recently, a large sample of junior high school students (approximately 12 to 14 years old) from 10 Southeastern cities claimed to devote about 6 hours per day to television and another 5 hours to radio (Brown et al., 1990), and a national sample of high school students (13 to 17 years) reported about 4 and a half hours of daily viewing and 4 hours of radio listening (Horatio Alger Foundation, 1996). If we add to this the time spent reading (magazines, newspapers, nonschool books), attending motion pictures, watching videos, playing video games, working

with personal computers both off-line and on-line, then any estimates that today's young adolescents are exposed to media as much as 8 to 10 hours per day (cf. Roberts, 2001; Roberts & Henriksen, 1990) do not seem extravagant. Nevertheless, to our knowledge, no study using a representative sample of U.S. youth and measuring exposure to most currently extant media has tested this claim.

Although past studies of children and adolescents have produced relatively consistent findings with regard to the relationship between some kinds of media use and various social and demographic variables, they have left several important gaps in our knowledge. Many earlier studies report the average amount of time children spend with one or another medium, but these averages conceal a great deal of variation. Some children watch no television on an average day, others view more than 8 hours. Some children have no access to a computer, others spend much of their free time online. Some children may hear one or two top-40 songs while being driven to soccer practice, while for others Walkman headphones serve as a standard part of the wardrobe and the latest hip hop hits wash over them continually. More interesting than either averages or the fact that children differ greatly in how they use media, however, is that much of the variation in children's media use is predictable. That is, the amount of time kids spend viewing, listening, or going on-line – as well as what they watch, hear, or access – is related to a wide variety of social and demographic factors.

For example, past research has demonstrated that the amount of time children and adolescents devote to each medium (as well as the ways in which they use each) depends on such factors as age (e.g., television viewing time increases until about 12 or 13 years, then tapers off throughout adolescence; music listening begins at around 9 to 10 years and steadily increases throughout adolescence), gender (e.g., boys spend more time than girls using computers and playing video games), race and ethnicity (e.g., African American adolescents use both television and radio more than their white counterparts), intelligence (e.g., as IQ increases, television viewing decreases and reading increases), social integration (e.g., youth with few friends spend more time with media than do those with many friends), geographical location, household socioeconomic status, and family size (see, e.g., Bower, 1985; Brown et al., 1990; Christenson & Roberts, 1998; Comstock, 1991; Comstock and Scharrer, 1999; Lyle & Hoffman, 1972a; Schramm et al., 1961).

In addition, large disparities among different estimates of the total amount of time children devote to the various media are quite common.