



## WHAT IS RADICAL CHANGE? AN INTRODUCTION

### ⚠ WARNING

*This book appears to contain a number of stories that do not necessarily occur at the same time. Then again, it may contain only one story. In any event, careful inspection of both words and pictures is recommended. (Macaulay, *Black and White*, 1990, title page)*

This book grew out of a puzzle. The idea that something radical is taking place in children's books first occurred to me when I was a member of the 1991 Caldecott Committee. This Committee awarded the medal for the best picture book of the year to David Macaulay's *Black and White* (1990). After excitement over the award died down, I began to wonder why *Black and White* appealed so strongly to contemporary children but not always to contemporary adults. Like the book itself, the reaction to it seemed a puzzle. Looking around, I discovered other books that evoked the same sort of mixed response. Like *Black and White*, these books invariably had interactive, nonlinear qualities. The words *interactive* and *non-linear* struck a familiar chord. These are words heard often in contemporary society; they are used to describe digital media such as CD-ROMs and the Internet.

My Caldecott colleague, Kate McClelland, and I began to give talks for other librarians and teachers about this book-digital connection. As we talked we learned. We began to recognize other changes in books—not just in formats, but in perspectives and in topics, and not just in picture books, but in all types of books. Eventually we realized that the changes in books for young people have a lot to do with changes in society, a society that daily becomes more interactive and connected through digital networks. We began to see more and more similarities between this world and the world of literature. We saw that something was happening in books for youth, and we called it “Radical Change.”

After one of our first public presentations about Radical Change, a librarian came up to the podium to say, “You’ve saved my life. I have to appear before my school board next Tuesday and convince them

David Macaulay explained a lot about the “radical” or unusual nature of *Black and White* in his Caldecott Medal Acceptance speech, when he said that “it is essential to see, not merely to look; that words and pictures can support each other; that it isn’t necessary to think in a straight line to make sense; and finally that risk can be rewarded” (1991, p. 346).

why we need funds for both books and computers. I could not quite see the connection until I heard you talk. Now I know exactly what I'm going to say." Many more librarians, educators, critics, parents, and young people themselves have grown excited by this new way of thinking about literature and literary-digital connections. They say the concept of Radical Change helps them understand, select, and use books in this digital age, and they have asked to have it all written down to use as a guide. It was for this reason that Radical Change, an idea about books, became a book itself.

### WHAT DOES RADICAL CHANGE MEAN?

Change needs no definition. *Radical Change* does. Understanding the various meanings of *radical* helps in understanding the extensive changes in contemporary literature for youth.

The English word *radical* derives from the Latin *radix*, meaning "root." I think of the entire body of existing literature for youth as a sort of rhizome (a horizontal, root-like structure), from which new developments emerge in a random, spontaneous manner.

Next, the word *radical* means "fundamental." The changes in literature for youth are basic.

The word *radical* also means "a departure from the usual or traditional." All changes identified as *Radical* emerge out of, but at the same time depart from, the time-honored characteristics of literature for youth. Some teachers, librarians, and critics are upset when they see such changes referred to as "new" or "departures," because they can think of books with many of the same traits that were published in the past. These adults are often less disturbed when they realize that the literary changes which depart from the traditional may well have appeared in the past, but not in significant numbers. Now they appear in far greater quantities. What was highly unusual is now commonplace, in part because of a more supportive environment.

Finally, the word *radical* means "extremely different from commonly existing views." Most changes in literature for youth are *not* extreme. Nonetheless, a few of the examples described in this book do represent developments that are "extremely different" from the literature of the past.

Considering all these definitions together, *Radical Change* means fundamental change, departing from the usual or traditional in liter-

The term *radical* often describes extreme or insurgent actions in times of political turmoil. Literary critic Rod McGillis asks in *The Nimble Reader* (1996) whether radically-styled contemporary books for youth are "in any political sense radical, or do they put to rest the transgressive instincts of their readers?" (pp. 111-12).

ature for youth, although still related to it. According to an ancient Chinese proverb, wisdom begins when things are called by their right names. Radical Change gives those of us with a serious interest in contemporary literature for youth the right name to apply to what otherwise would remain an enigma.

“Radical change” is used in two different ways throughout this book, as shown in Figure 1.

**Figure 1**

**KEY**

- ▶ The term *Radical Change* with initial caps is used to describe the framework or theory that allows the reader to identify literature with characteristics of the digital age.
- ▶ The term *radical change* with no capitals is used to refer to the evidence of the changes themselves in literature or (sometimes) in society.

**DOES RADICAL CHANGE APPLY TO ALL BOOKS FOR YOUTH?**

Radical Change *can* apply to all types of books for youth. However, in this book it will be applied only to texts that are generally regarded as “literature” for children or young adults.

*Literature* is writing, illustration, or other graphic representation demonstrating excellence of form or style and expressing ideas of widespread or long-term interest. It makes sense to focus here on books with literary merit, because many of the adults for whom the discussion is intended are responsible for choosing “good books” to use with children or for teaching others about such books. This examination of Radical Change in literature for youth centers on the *handheld book*, a term that means, as it would seem, a book which can be held in the hand and read without the assistance of an electronic device. Our discussion looks at how literature has been and will continue to be transformed within this portable “package.” The scope of literature selected for examination is that published for young readers in the United States, most often but not always, by the juvenile divisions of trade publishing houses.

When books for children change, it follows that parents, teachers, and others will raise concerns and questions about what this means

Overall, the annual Children’s Book Selling Survey conducted in March 1996 showed steady sales of children’s books. Over 34 percent of the respondents increased their children’s book sales over the previous year, while 31.5 percent reported no change (Roback and Maughan, 1996, p. 52). *Children’s Books in Print* (1998) lists more than 127,000 active titles.

The only type of literary books for youth which seem thus far not to have been influenced in a substantial way by the radical changes of the digital age are those known as "easy readers."

Perhaps publishers and authors believe that children need linear text, simplified concepts, and familiar subjects in order to learn to read.

In 1997 the Children's Book Council (CBC), an organization of publishers of books and book-related multimedia products for youth, compiled a bibliography, *Not Just for Children Anymore*. It is stated in the Preface that "children's books are now books for the young and the older. One thing is certain: they are Not Just for Children Anymore!" The pamphlet is available in electronic form on the CBC web site <<http://www.cbcbooks.org/navigation/parindex/htm>>.

for reading. *Reading* in relation to Radical Change means "decoding" words and pictures to arrive at meaning. Evolving ideas and issues about reader response and constructing "story" now and in the future are scrutinized as part of the discussion.

## WHO ARE THE YOUTH?

A good friend in publishing recently asked me to guess the age that editors "always" say intended readers are, when they want to sell a book to an editorial committee. The answer (which I did not know) is eight to twelve. Whether or not this practice is widespread, setting age limits is imprecise at best and often unduly restrictive.

The readers (or listeners and viewers) with whom this book is concerned range from preschool through adolescence, and include as well any other readers who choose materials published and marketed specifically for young people. The specific age of young readers is rarely referred to in this book, and when age is mentioned, it is usually the age intended by the author or illustrator, rather than the age of the actual reader. These readers are the young people Don Tapscott calls the Net Generation in his book *Growing Up Digital* (1996). They were born after 1977. They have grown up with television and computers. Indeed, computers have become more evident and available each year of their lives.

It is difficult to find a consistent term to apply to these young readers. *Children* and *youth* are used interchangeably here as umbrella terms to cover both preadolescent and adolescent readers. However, when literature is specifically written and published for an intended audience of adolescent readers, the term *young adult* is applied.

## WHAT IS THE DIGITAL AGE?

The digital age referred to in this book is the societal landscape that has gradually emerged as computers have become more commonplace and as the Internet has become a locale where children can learn and play. The digital age was clearly emerging in the 1990s, the years that are the focus of this book. No specific beginning date can be identified, for this era, like the books it has influenced, evolved over time, out of what came before. *Digital* refers not only to the media themselves but also to the interactive, connective qualities they possess, which seem to have permeated much of society. Nicholas Negroponte, head of the MIT Media Lab, vividly describes the impact of this digital culture in the collection of his columns

from *Wired Magazine* called *Being Digital* (1995): “Being digital is different. We are not waiting on any invention. It is here. It is now. It is almost genetic in its nature, in that each generation will become more digital than the preceding one” (p. 231).

### What Does *Digital* Mean?

*Digital* is a term that is often used when referring to electronic media in the 1990s. There are technical and cultural aspects to its meaning. Technically, *digital* means media that are created using bytes made up of bits. A bit is a binary unit which is created by the presence or absence of an electrical impulse, in essence a 1 or a 0, thus the name *digital*. The significance for us is that, because bits and bytes are really only electrical impulses without substantial being, they cannot be fixed into place or frozen in a linear order—they can be endlessly and instantly arranged and rearranged. The electrical impulses of which bytes are composed can speed around the world in seconds—and become something entirely different within a few moments of their arrival at a destination. (In a pre-digital medium, the smallest units of matter—the atoms—once set in place, stay in that order. Print, radio, and television—as originally conceived and transmitted—are pre-digital, linear media.) In a broad sense, *digital* refers to media which provide for users a high level of choice and interactivity because the bits and bytes can be rearranged and transmitted so easily.

**Table 1**

<b>DEVELOPMENT OF THE DIGITAL AGE</b>	
<b>1960s</b>	<b>Television becomes widely available; the global village begins</b>
<b>1970s</b>	<b>Internet precursor comes into use</b>
<b>1980s</b>	<b>Personal computers and digital media become widely available; video games bring digital media to youth</b>
<b>1990s</b>	<b>Internet becomes widely available; “older” electronic media such as television become digitized; technologies converge</b>

Today’s digital age has its roots in the 1950s, when television entered the homes of most Americans. The years between 1960 and 1990 can be thought of as the developing digital age. The beginnings of the global village—the instant connectivity among peoples

In 1997, 44 percent of all U.S. households had personal computers. But an astonishing 60 percent of the households with children had them. Predictions are that by the year 2000, nearly half the households with children will be online (Tapscott, 1997, p. 22-23). Network Wizards, an online source which provides statistics on worldwide connectivity, can be found at <http://www.nw.com/>.

The impact of the emerging electronic age gained widespread attention during the sixties with Marshall McLuhan's *The Medium Is the Massage* (1967). This was McLuhan's only best-seller, and it brought his ideas to the general public. At his death in 1980, McLuhan was not particularly respected as academician or spokesperson for popular culture. But, says Gary Wolf, executive editor of *HotWired*, "in the confusion of the digital revolution, McLuhan is relevant again" (1996, p. 124).

across the world—and the emergence of the visual as a widespread means of communication date back to the late 1960s or early 1970s. However, the quantum leap in connectivity, interactivity, and access that marks the fully emerged digital age did not occur until digital media had started to touch the lives of the general populace, in the last decade of the twentieth century. Digital communication had become ubiquitous by the early 1990s. By 1994, sales of personal computers were approaching those of televisions, and the phenomenal growth of Internet connectivity had begun. The nonlinear, interactive digital communication media have reached out and drawn in older, linear media—video, sound, print—and made all accessible in a user-controlled way never before known.

The digital age acknowledges the continued influence of other electronic media, but the focus is on the spreading network of interconnected personal computers. This is the age of the Internet, the Information Superhighway, the National Information Infrastructure. It is the age of digitized media, often in multimedia format. While there are certainly downsides and pitfalls, the more positive, nurturing, challenging aspects of this digital age can unleash the potential of all of us—and, most importantly, children.

## DIGITAL-AGE PROPHET

"The medium is the message." "The global village." "Hot and cool media." These are all common phrases coined by Marshall McLuhan. Thirty-some years ago, McLuhan wrote extensively and passionately about the electronic environment. Although his ideas were often speculative rather than "proven," and criticized as such, they've been persistently discussed during thirty years of immense social, technological, and political change. Many of McLuhan's concepts seem more relevant than ever. Recognizing his continued influence, the Massachusetts Institute of Technology recently reissued his book, *Understanding Media: The Extensions of Man*, originally published in 1964.

### The Global Village

Over and over McLuhan proposes that the electronic media are breaking down old habits of thought formed by the impact of Gutenberg and the printing press. The isolationist, nationalistic organization of the world will also be broken down, he says, as people begin to communicate via media that are involving and nonhierarchical. Even more than McLuhan imagined, the global community not only exists, but is increasingly interactive.

## Hot and Cool Media

McLuhan described media as either “hot,” or not requiring active participation on the part of the recipient of the message, or “cool,” requiring a high degree of participation. According to McLuhan, a “hot” medium is one that is filled with the data the user needs for garnering the message. Often it calls into play only one of the five senses. Radio is a “hot” medium. So are handheld books—they marshal information and narrow the field of choice for the reader. Television, on the other hand, is a “cool” medium. It brings into play at least two senses and necessitates more extensive user involvement. Although McLuhan’s examples can be challenged, he saw beyond the limitations of a one-way broadcast and defined a desirable, evolving principle of the new media: interactivity.

## McLuhan and Books

McLuhan did not abandon books. He suggested transforming them. He transformed the books he himself wrote in precisely the same ways and for the same reasons that handheld books for youth are being transformed now. McLuhan spoke of one of the concepts of *Radical Change*, the interaction between print and electronic media, when he said, “Our job is not to wreck the book but save it by teaching grammars of new media” (quoted in Neill, 1971, p. 311). McLuhan said television was a “cool” medium because it is composed of “bits” which make up a mosaic—predicting the mosaic of the digital world, before it came into being. According to Sam Neill, a librarian who has studied McLuhan’s work,

The effect of the mosaic approach . . . evident in his publications, has naturally caused great howls to arise from those who expect the argument of a man’s point of view to march forward word by word, page by page, chapter by chapter, each one rising out of and developing the preceding, to culminate in a visible and classifiable conclusion. He is accused of being a “communicator who can’t communicate.” (p. 312)

McLuhan uses three juxtaposed formats in *The Mechanical Bride: Folklore of Industrial Man* (1951)—advertisements, short witty quotations and statements, and an essay about advertising’s cultural relevance. In the introduction to the volume he states, “Because of the circulating point of view in this book, there is no need for it to be read in any special order” (p. vi). In other books, McLuhan used alternating light and boldface type to make points; he published almost entirely visual texts, including *The Medium Is the Massage* (1967);

and he foresaw the hypertext story and the sound bites of modern news reports in *Culture Is Our Business* (1979), where he said, "In the electric age the connection in narrative and art is omitted. . . . There is no story line in modern art or news. . . . Thus, isolated news items are more interesting than editorials" (p. 112). McLuhan employed many other nonlinear, nonsequential techniques in his writing—all of which he described as communication reflecting the electronic world. McLuhan was an accurate prophet for the radical changes to come three decades later to the handheld book for youth.

This imaginary dialogue between two contemporary children and their aunt, a McLuhan fan, is meant to show which of McLuhan's ideas seem valid at the beginning of the 21st century and which need rethinking. *Black and White* (1990) by David Macaulay is discussed extensively in subsequent chapters. It is a prototype of Radical Change.

A rereading of *Alice's Adventures in Wonderland* brings a new appreciation of Lewis Carroll's genius and his understanding of children's thought processes. The full text from Project Gutenberg is available on the World Wide Web at [http://www.promo.net/pg/\\_titles/A.html](http://www.promo.net/pg/_titles/A.html).

### Radical Change in Literature for Youth and McLuhan's Ideas

*An imagined dialogue between two "Net Generation" children—Nell (13) and Willie (6)—and their favorite aunt, Rosa, who likes to hear what they think and has always been interested in the ideas expounded by Marshall McLuhan in Understanding Media:*

**Nell:** Look, Aunt Rosa, I'm reading a good book by David Macaulay called *Black and White*.

**Aunt Rosa:** Ahhh! Then you have what a man named Marshall McLuhan referred to some thirty years ago as a "hot" medium, something that doesn't require the kind of intense involvement that television viewing or using your computer does. Professor McLuhan thought printed books—other than those he wrote himself—provide a pretty complete and straightforward experience. He compared them to the "mosaic" of electronic media that demand more thought.

**Willie:** Have you seen *this* book? Here, look at it. Look at this, look at the different sizes and shapes of the words, and where they are on this page.

**Nell:** Looks like more of a mosaic of items than I see online. And, look, here on the first page, the author won't even tell us how many stories there are in the book. The reader has to figure it out. It's pretty involving. [See Plate 1.]

**Aunt Rosa:** Yes. Very unusual, though, for a book. Things happening simultaneously, nonlinearly. Very unusual. I do remember Professor McLuhan's saying that Lewis Carroll in *Alice in Wonderland* foreshadowed the electronic media with his treatment of time and space. And he talked about what is "left out" for the reader to supply in comics. And he wrote books to show how it could happen. Haven't seen so much of that in good literature for youth—but looks like you have an example here.

What's that on your computer screen?



**Nell:** That's an electronic book, a CD-ROM or digital version of David Macaulay's *The Way Things Work* (1988).

**Willie:** See all the graphics that I can click on to get more information? Some of it will be words, some pictures, some video, some audio.

**Nell:** Maybe that's what your professor meant by being involved, by a mosaic of media. I can click on my mouse and link from one idea to another. But I have to do the same kind of thinking and can do the same kind of linking of ideas with *Black and White*.

**Aunt Rosa:** A handheld book that demands a large amount of reader interactivity and can be read nonlinearly? An electronic device consisting of linked print, pictures, video, and sound? Ahhh! Perhaps we've reached the kind of combined and compatible communication McLuhan hoped for but did not see. I'll have to think about this. . . .

McLuhan did not use the words Radical Change, but he described a fundamental alteration in life, *extremely different from commonly existing views*, brought about by new media and potentially transforming books. He did not use children as his primary examples, but exempted no one from the developments he predicted.

### **More Than Thirty Years Later**

More than thirty years after McLuhan's ideas were introduced, a digital age has emerged, changing our environment dramatically. The computer has become a common household and classroom tool. And the concept of the computer as a "box for manipulating data" has given way to the idea of the computer as a device for communicating data across geographical and political boundaries. Using a computer once required the skills of a professional programmer. Today a preschool child can perform a rich variety of computer operations even before she learns to read.

Nicholas Negroponte emphasizes again and again that "computing is not about computers any more. It is about living" (1995, p. 8). The digital environment is ubiquitous; it cannot be avoided. All forms of information—voice, video, and data—have begun to move around not in linear streams, as with previous media, but rather in bits that are nonsequential and rearrangeable. The new technology, Negroponte says, has created a cultural gap between the generations. Referencing two digital media, CD-ROMs and the Internet, he explains that "one is an electronic book, the other a socializing