Multiple Media Literacies

by Joshua Meyrowitz

There are at least three different types of media literacy, each linked to a different conception of what we mean by the term media. The notion that media are conduits that carry messages points to the need for media content literacy. The idea that media are distinct languages suggests the need for media grammar literacy, that is, understanding the use of production variables within each medium. The conception of media as environments suggests the need to grasp the influence of the relatively fixed characteristics of each medium (medium literacy), both on individual communications and on social processes in general. Medium literacy, in particular, offers some special thoughts into the origins, problems, and possibilities of the media literacy movement.

What is *media literacy?* Discussions of this concept typically focus on how to redefine literacy to fit our current media environment. Less attention tends to be given to different definitions for the other half of the phrase. After all, surely everyone knows what "media" are! Indeed, it is the pervasiveness of a wide array of media—movies, radio, television, computers, and so forth—that has stimulated the debate over how to reconceptualize literacy in the first place.

Yet, I argue that there is less consensus about what we mean by media than many researchers, parents, and teachers may at first imagine. Also, different ways of thinking about media lead to different conceptions of the competencies, or literacies, that may be desirable in the educated and aware citizen.

In this essay I outline one typology of multiple media literacies, based on three distinct metaphors for what a medium of communication is. Each metaphor leads to a different set of questions about media, to different approaches to doing media research, and to a different way of defining basic media literacy. Yet, the different conceptions of media described here are not entirely unrelated. The visual models included in this article, therefore, attempt to portray both the differences and the relationships among three types of knowledge about media.

Table 1. Media Content Elements

The media-as-conduits metaphor focuses attention on those elements that move relatively easily from medium to medium and between live interaction and media, such as:

<div align="center">

ideas
themes
topics
information
values
ideologies
persuasive appeals
settings
objects
characters or roles
actions or behaviors
narratives
genres (thematically or topically defined)

</div>

Typical questions about media-content elements explore:

<div align="center">

structure/pattern of above content elements
motivations of producers of content
influence of media industry structure on content
economic and political influences on content
variations in individual and group perception of content
correlations between media content and reality
the effects of content
the types of messages that rarely if ever appear in mainstream media

</div>

Media Content Literacy

The most common conception of media is that they are conduits that hold and send messages. This conception has fostered many ways of discussing and studying the content of media. Within this general view of media, basic media literacy involves being able to access and analyze messages in a variety of media. Content literacy takes many forms. These include being able to decode and follow the intended manifest message; exploring intended and unintended latent messages; being aware of different content genres; being aware of the cultural, institutional, and commercial forces that tend to lead to certain types of messages being constructed while others are avoided; and understanding that different individuals and groups tend to "read" the same "texts" differently.

As the list of content elements in Table 1 suggests, media content dominates most debates and studies of media. Indeed, the explicit or implicit view of media as conduits is shared among many media critics and researchers who otherwise have little in common. These include ministers who condemn the immoral nature of much TV-portrayed behavior; activists who protest the limited and stereotyped portrayal of women, gays, African Americans, or other minorities in the media; and a wide range of researchers who study manifest and latent content in news and entertainment through a plethora of quantitative and qualitative methods.

Further, although the early stimulus-response, conveyor-belt theory of media effects has long been abandoned in academic circles in favor of generally much

The importance of media content is most visible when other elements of mediated communications are ignored and when one content element, **A**, is contrasted with another real or hypothetical content element, **B**.

A vs. B

CONTENT ELEMENT **A** vs. CONTENT ELEMENT **B**

For example:

violent vs. peaceful content
sexist vs. egalitarian content
routine reporting vs. investigative journalism
unrealistic vs. realistic content
one genre vs. another genre

Figure 1. Analysis of content

more sophisticated and subtle models of media influence and transaction, the majority of current approaches have not actually strayed that far from one of the original assumptions: that there is something inside, and somehow separable from the medium, that can be analyzed and studied. As Wilbur Schramm (1973), an icon of one form of content study, once put it, "The message is the message, and the medium is the medium" (p. 128).

The focus on media content is popular for several reasons. For one thing, media content—in its manifest form, at least—tends to be the most obvious aspect of mediated communications. This makes media content important to study. Further, media content concerns tend to focus on aspects of communication that are not specific to specific media. Indeed, most content elements involve behaviors, themes, and topics that cross easily from medium to medium and between mediated and unmediated interaction. For example, popular content concerns (e.g., violence, sexism, racism, ideological bias) all exist within most communication forms, including face-to-face interaction. Thus, in a media-saturated society, media content questions draw the attention of anyone with a strong concern about any aspect of social life. Because media content elements can be separated, at least analytically, from the particular media that contain them, discussions of the content from any medium can be presented in any other medium. Media content can be relatively easily coded, counted, and verbally analyzed. The ease with which one can speak and write about media content, regardless of the medium in which the content is found, makes it a favorite media topic of pundits, preachers, politicians, and professors.

To set the stage for visualizing the relationship between content literacy and

other forms of media literacy, I suggest using letters A, B, C, and so on to symbolize media content elements (see Figure 1). Content questions generally focus on the analysis of some aspect of content element A contrasted, explicitly or implicitly, with a real or hypothetical content element B.

Knowing how to access, interpret, and evaluate content from a variety of media is an essential ingredient of any conception of media literacy. One could argue, for example, that every citizen needs to know a great deal about news in order for democracy to function. Basic media content literacy could go beyond simply "keeping up" with the news. It could also involve understanding how news tends to be constructed and how political, economic, and institutional constraints lead certain forms of news to dominate, regardless of the medium through which the news is conveyed. The last few decades have seen the growth of an excellent literature on critical analysis of news that could easily serve as a foundation for news-content literacy (e.g., Altheide, 1976; Gans, 1979; Hallin, 1994; Herman & Chomsky, 1988; Manoff and Schudson, 1986; Schudson, 1995; Sigal, 1973, Tuchman, 1978). A similarly powerful (and in some ways related) case could be made for basic understanding of how much of our media content serves as explicit or implicit advertising (e.g. Barnouw, 1978; Savan, 1994).

However, media content issues, as important as they are, do not exhaust the basic skills that we should all have with respect to media. Indeed, in some ways, this most popular approach to media is not really about media. That is, when content is the focus, not much attention tends to be given to the particular characteristics of the medium through which the messages examined are conveyed. In the next two sections I outline conceptions of media that suggest the need for two additional forms of media literacy.

Media Grammar Literacy

Another conception of media involves seeing each medium as its own language. This view of media leads to a focus on the unique "grammar" of each medium and the ways in which the production variables of each medium—or what Zettl (1990) calls the medium's "aesthetic" aspects—interact with content elements. Unlike most content elements, which cross easily from medium to medium and from mediated to nonmediated interaction, media grammar variables are peculiar to media. Although one can exhibit violence, sexism, or racism in real life, for example, it is difficult to "cut to a close-up" or "dissolve to the beach" in everyday interactions. One person cannot sing the harmony and the melody at the same time without the medium of audio recording, nor can we change typefaces in speech.

Basic media literacy, within this conception of media as languages, entails understanding and recognizing the standard range of production variables within each medium, as well as recognizing the ways in which the variables are typically used to attempt to shape perception and response to mediated communications. More advanced forms of media grammar literacy involve knowledge of a wider range of variables within each medium, being able to manipulate the variables skillfully in one's own media productions,[1] understanding what cultural and insti-

Table 2. Sample Grammar Variables for Various Media

Production variables can be manipulated within each medium to alter perception of message content.

Print Media	*Still Photography*	*Radio/Audio*	*TV/Film*
size/shape of page	framing (CU/MS/LS)	mike pickup pattern(s)	(most photo variables)
color(s) of paper	angle (low/high/level)	sound perspective	(all audio variables)
thickness of paper	front/back/profile	electronic volume	visual fade in/out
texture of paper	selection of focus	electronic tone	cuts
size(s) of type	depth of focus	frequency filter(s)	dissolves
typeface design(s)	lens (wide→telephoto)	fade up/fade out	cross-cutting
color(s) of type	exposure	cross-fade	length of shots
use of italics/bold	aperture opening	multitracking	zooms vs. dollies
widths of columns	shutter speed	segue/silence	pans vs. trucks
spacing	type of film	echo	tilts up/tilts down
paragraph breaks	filter(s)	speed changes	still or shaking camera
punctuation	double exposure	backwards	objective vs.
use of blank space	color balance	channel separation	subjective shots
mosaic of text	contrast	channel balance	split screen & multi-
& graphics	type of paper		image
	cropping		rack focus
	size/shape of image		follow focus
			juxtapositions of sound
			& image

tutional forces tend to encourage some uses of grammar variables rather than others, and recognizing that responses to production variables may vary individually and culturally.

Table 2 outlines some of the key grammar variables that can be manipulated in a few sample types of media to create certain impressions. As noted, some variables operate in more than one medium. Television and film incorporate most of the variables of still photography and audio. When photography and print, or film and print, are mixed (as in magazines or in movie titles), many variables from more than one column come into play. Computer programs and web sites are increasingly incorporating many of the variables of text, photography, sound, and motion. Yet, despite some crossover in variables, each medium tends to offer its unique mix of variables. Even TV and film, which are listed together on the table for simplicity, achieve the same effect (such as a dissolve) through different physical means, and each has some variables not shared with the other (such as the wide spectrum of electronic visual effects available in TV).

Unlike media content literacy, media grammar literacy demands some understanding of the specific workings of individual media. There is no space here to discuss the uses of many variables in many media. So, to illustrate the type of knowledge that media grammar literacy entails I will focus on a very brief outline of a few of the basic visual variables that operate in the typical television program or movie.

---

[1] One can also use the production process as a means of gaining the initial awareness of content and production variables. My former student, Karen Webster, now a graduate student at the University of Utah, demonstrated this in her news production work with 4th and 5th graders on the Oyster River Media Education Project from 1990 to 1993 (Webster & Meyrowitz, 1995).

The selective use of close-ups, medium shots, and long shots can reshape the perceptions of both fictional and nonfictional sequences. Shot framing often draws on the culturally patterned uses of interpersonal distances in real-life interactions (Meyrowitz, 1986). Close-ups simulate intimate distances and encourage viewers to feel a personal connection to the pictured person. Generally, the main character in a program or movie is the first person seen in frequent close-ups. Persons seen at greater distances are more likely to be perceived in terms of their social roles. Media grammar literacy, then, might include awareness of how viewers may react differently to violent acts depending on the way the perpetrators and victims are photographed. Similarly, the viewer aware of media grammar is more likely than other viewers to observe how nonfiction sequences (e.g., news and documentaries) are carefully crafted to look as if they are not crafted, but simply real—what Gaye Tuchman (1978) calls the creation of an "aura of representation." For example, the media grammar literate viewer might observe that, although some people who are the subjects of television news are shown in tight closeups, journalists themselves rarely are (in order to maintain the impression of impersonal objectivity).

Camera angles also tend to be used in particular ways. Low-angle shots (camera below subject) are often used to suggest power and authority, though extreme low angles can be used to mock someone's sense of self-importance. Level shots are typically used to suggest someone is a "peer" or is "on the level," which is why this is another technique typically used by journalists on themselves. High-angle shots (camera above subject) are typically used to suggest that someone is small or weak.

Wide-angle lenses tend to stretch the apparent distance between foreground and background, whereas long (telephoto) lenses tend to compress foreground and background. News reports on highway crowding, for example, typically use long lenses to make it appear that the cars are squashed together. In contrast, car ads typically use wide lenses to impress viewers with the spacious interior of the vehicle and to convey the appeal of the wide-open road.

Media grammar literacy could go far beyond these basic variables to entail awareness of how manipulation of production variables may be subtly reflecting and influencing the public's perception of people, places, and events. Media grammar literacy could include understanding how visual grammar variables can be used to guide the public's attention (such as through editing structure, selective primary focus, and focus depth); encourage alignment with one side versus the other in war movies, news, and documentaries (through camera placement, shot framing, whole-camera movement vs. lens zooming and panning); depict people in a particular country as part of a crowded mass as opposed to individual human beings (through long lenses or bird's-eye views or both); portray some news sources as stable and authoritative (with tripod-steadied medium shots), and other sources as unstable, threatening, and untrustworthy (with shaking cameras or tight closeups, in which natural body shifts lead to what appear to be attempts to escape the scrutiny of the camera); and so on. Media grammar literacy should also involve awareness of the impact of media variables that are not as easily "seen," such as the impact of sound-track elements, which include different sound perspectives (the aural equivalents of different shot framings), different microphone pickup patterns, and sound equalization filters.

The impact of media grammar is most visible when a content element, A, is held constant and one grammar variable is contrasted with another.

GRAMMAR VARIABLE ■ vs. GRAMMAR VARIABLE ▲

For example:

MURDER
shown from perspective of victim vs. perspective of murderer

FEMALE EXECUTIVE
portrayed in "professional," low-angle medium shot
vs. "intimate," level-angle closeup

STREET IN BAGHDAD
shown with "crowding" long lens vs. "spacious" wide angle lens

Figure 2. Analysis of grammar

Of course, there can be no meaningful manipulation of media grammar variables without some media content to work with. However, the grammar is most visible when a content element is held constant. In Figure 2, therefore, grammar concerns are represented schematically by showing a sample content element A within two different polygons (a square vs. a triangle), which are used to represent grammar variables.

Media grammar tends to receive significantly less attention than media content for several reasons. For one thing, many people are simply not aware that a wide range of production variables are at play most of the time in most of the media to which they attend. Producers, after all, generally want audiences to be aware of content elements, but not to be aware of grammar elements. A television or movie producer would prefer that audience members consciously feel empathy for a character, rather than be aware of their response to the use of prolonged close-ups. Similarly, the editors of a prestigious newspaper do not want their readers to consider how much of the paper's credibility might be lost if the same stories were in a different typeface and format.

Ironically, then, powerful content and powerful grammar typically have opposite effects on audience awareness: The more effective media content elements are, the more that audiences are likely to be aware of, and think about, the content. The more effective the media grammar elements are, the less the average audience member will even notice them.

Even those who study media often shy away from writing and speaking about

media grammar because of how difficult it is to convey a description of grammar from the medium of production to the medium of description. Media grammar elements need much more translation than media content elements, and one can never be sure how aware one's audience is of the variables being described. For example, I find it easy to tell you here in words that in the movie *Wall Street*, Bud Fox, the young stockbroker portrayed by Charlie Sheen, eventually comes to feel imprisoned by the same games of high finance that once made him feel empowered (a content description). However, if I try to describe here how this content theme is reinforced through many subtle shifts in shot structures as the movie evolves, including the use, at a pivotal moment, of a smooth combination of zoom-in on Sheen as the camera dollies out, thereby making it appear that the Wall Street buildings behind the character are literally closing in on him as he just stands still, those readers unfamiliar with the visual impact of such a combination of techniques are likely to be lost. The most interesting and clearest way to explain these techniques would entail displaying them (repeatedly, and in slow motion, perhaps) within the original medium of presentation.[2]

Although those who have no formal training in media production techniques are often unaware of them, once someone has been taught about grammar variables, they are hard to miss. The variables listed in Table 2 are, after all, clearly visible or audible once one knows to look or listen for them. Even more challenging, then, is the third conception of media literacy, described in the next section, which entails understanding the least overt aspect of mediated communications.

Medium Literacy

A third conception of media is that each medium is a type of setting or environment that has relatively fixed characteristics that influence communication in a particular manner—regardless of the choice of content elements and regardless of the particular manipulation of production variables.

This approach is most often associated with Marshall McLuhan (1964), but others before McLuhan, and many since, have also developed aspects of this perspective, which I have called "medium theory" (Meyrowitz, 1985, pp. 16–23; 1994). I use the singular, medium, because unlike most media theory, this approach focuses on the particular characteristics of each medium.

Table 3 lists sample characteristics that can be used to distinguish one medium from another (e.g., radio vs. television), or to show how one general type of media is different from another type of media (e.g., electronic media vs. print media).

Medium literacy involves understanding how the nature of the medium shapes key aspects of the communication on both the micro-, single-situation level and on the macro-, societal level. Microlevel medium literacy, for example, could en-

---

[2] The spread of web publishing may lead to a surge of new media grammar research and publications, because, assuming that copyright and fair use issues can be resolved, web articles can contain audio and visual samples from the works being studied. This possibility is an example of a "medium" argument, which grows from the third media metaphor discussed in this essay.


Table 3. Sample Medium Variables

Medium analysis focuses attention on those relatively fixed features of a given medium (or of a general type of media) that make it a unique communication setting and distinguish it from other media and from face-to-face interaction.

type of sensory information conveyed; unisensory or multisensory
(visual, oral, olfactory, etc.)

the form of information within each sense
(e.g., picture vs. written word; clicks vs. voice)

degree of definition, resolution, fidelity
(e.g., a radio voice is closer to a live voice than a TV closeup is to a live face)

unidirectional vs. bidirectional vs. multidirectional
(e.g., radio vs. telephone vs. on-line computer conference)

simultaneous vs. sequential bidirectionality
(e.g., hearing other person's response as one speaks over telephone vs. CB turn taking)

speed and degree of immediacy in encoding, dissemination, and decoding

relative ease/difficulty of learning to encode and decode
and number and types of stages of mastery
(e.g., learning to read vs. learning to listen to the radio)

ratio of encoding difficulty to decoding difficulty

physical requirements for engaging the medium
(Does one have to be in a certain place, hold something, stand still, look in a certain direction, use special lighting, stop live interaction, etc.?)

degree and type of human manipulation
(e.g., painting a picture vs. snapping a photograph)

scope and nature of dissemination
(e.g., how many people can attend to the same message at the same moment)

---

tail understanding why a particular type of interaction (e.g., contacting someone for a date, ending an intimate relationship, inquiring about a job, selling a particular product, negotiating a peace treaty, etc.) might work differently in one form of communication (face-to-face, phone, letter, E-mail, etc.) than another.

Many people, for example, might avoid using the telephone to try to end an intimate relationship because, with the phone, one's verbal message may be overwhelmed by one's emotional vocal overtones, and one is interrupted and influenced by the words and sounds of the other person. A "Dear John telephone call," therefore, is often inherently paradoxical. Because the telephone offers vocal, bidirectional, and simultaneous communication, it tends to maintain an informal, intimate, and fluid relationship, even as one tries to end such a relationship. A Dear John letter, however, allows one to "have one's say" without conveying emotional vocalizations or dealing with interruptions or responses from the other party. Further, unlike an ongoing phone call, letter writing allows the sender to write and rewrite a letter until it captures the right tone. For similar reasons, the

Media environments are most visible when content elements are held constant and one looks beyond the range of grammar choices within each medium to the differences between using one medium vs. another medium (or vs. no medium at all).

MEDIUM ENVIRONMENT ◯ vs.   MEDIUM ENVIRONMENT ⬡
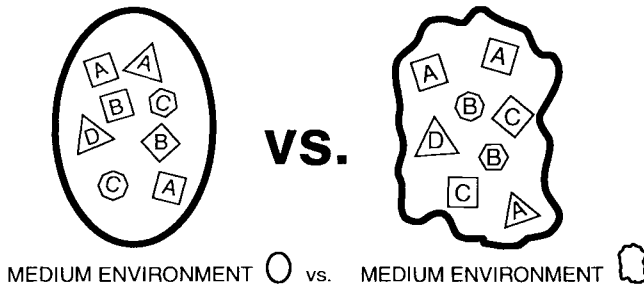
For example:

e-mail message vs. telephone call
political debate on radio vs. TV
news via TV vs. newspaper
policy discussion on network TV vs. interactive community TV
education in a "print culture" vs. an "electronic culture"
(also: any medium vs. face-to-face)

On the micro, single-situation level, medium analyses look at the implications of choosing one medium versus another for a particular communication. Macro, societal-level medium analyses explore how the widespread use of a new medium leads to broad social changes.

Figure 3. Medium analysis

phone is often much better than a letter for initiating an intimate relationship. Its simulation of close conversational distance allows for a testing of intimacy through the vocal channel only, without the initial intensity of bodily proximity, sight, and smell.

On the macrolevel, medium literacy entails understanding how the widespread use of a new medium may lead to broad social changes. For example, macrolevel medium theory explores such issues as how the addition of a new medium to the matrix of existing media may alter the boundaries and nature of many social situations, reshape the relationships among people, and strengthen or weaken various social institutions.

For example, macrolevel medium literacy could involve understanding theories about (a) the ways in which the widespread use of the telephone changed dating rituals and business practices in general, including the decline and changing role of letter writing; (b) the ways in which changes in dominant media alter social conceptions of what it means to be educated and competent; (c) whether the spread of television, with its presentation of the sounds and images of distant

others, has fostered the increasing focus on the appearance, style, and intimate life details of public figures; (d) whether the increasing use of place-insensitive electronic media has reduced the significance of national boundaries and stimulated the process of globalization; and (e) whether the increasing use of the internet, with its many alternative sources of information, including historical facts that are routinely excluded from the explanatory stories in the mainstream news media, will force the dominant, corporate news media to alter their reporting practices in order to maintain credibility with the public.

Medium analysis does not suggest that media come into being on their own. Medium literacy also involves consideration of how political, economic, and social forces encourage the development of some media over others. Also significant is the question of why particular forms of various media evolved. Why did television, for example, develop as a unidirectional mass medium as opposed to an interactive community medium? Such analyses could easily be linked with the discussions of the commercial nature of our media systems and their ties to corporate and governmental elites.

As Figure 3 indicates, medium analysis involves explicit or implicit comparison of one medium of communication with another medium of communication (or with unmediated interaction). Because it is impossible for a medium to have any influence without content, and because most media messages also involve the conscious or unconscious manipulation of grammar variables, each media environment (a surrounding, curved-line shape) contains content elements (letters) and grammar elements (polygons) as well.

Medium theory is the least common form of media analysis. This may be because the environment fostered by a medium is much less directly observable than the content and the grammar of media. The medium environment is most visible when the medium is just beginning to be used by a significant proportion of the population. For example, the current discussions of cyberspace generally support the medium-theory perspective that each medium is a new type of social "place" whose influence cannot be reduced to the content of the messages that flow through the net. Once a new generation is born into a world where use of the Web is widespread, however, awareness of cyberspace as a new social setting will no doubt recede. Ironically, then, the environment of a medium is most invisible when its influence is most pervasive.

Summary and Conclusion

This article has suggested that there are at least three different types of media literacy, each linked to a different conception of media. The idea that media are conduits that bring us messages suggests the need for media content literacy. The notion that media are languages with distinct grammars highlights the need to be literate in media production variables (media grammar literacy). The conception of media as environments points to the need to understand the influence on both the micro- and macrolevel of the relatively fixed characteristics of each medium, or of each general type of media (medium literacy).

Although the third conception of media is the least commonly drawn on at the present time, it offers some special self-reflexive insights for those interested in media literacy. Macrolevel medium literacy, for example, provides a way of understanding how the shift from oral to literate forms of communication supported new educational institutions and educational practices, which are now themselves being reshaped by the addition of various electronic media—leading to the calls for new forms of literacy.

Ironically, awareness of medium influence also leads to some insight into factors that make it difficult for many people to perceive this level of influence. Understanding particular characteristics of new media is hindered, for example, by the tendency to describe new media using concepts drawn from older media. This point leads to a critique of some of the common terminology that I also have drawn on in this article. The use of the term *literacy* to refer to skills with a variety of media and the use of the term *texts* to refer to the content of nontextual media, for example, make it even more difficult than it already is for many people to discern the very differences among media that the medium-theory perspective attempts to highlight.

Watching television, for example, has very little to do with traditional literacy (Meyrowitz, 1985, pp. 73–114). Television is mostly a presentational analogic system, whereas text information is discursive and digital. Young children are able to watch television long before they can learn to read. Further, although a child typically needs to learn to read simple books before reading more complex books, there is little, except an intervening adult, programmed V-chip, or sleep schedule, that demands that a young child watch *Mr. Rogers' Neighborhood* before watching *NYPD Blue*. Young children may not understand television in the same way that adults do (just as they may process live events differently), but television does not have the same sort of initial screening device that books do. Using the notion of literacy to describe engagements with all media tends to obscure the fact that there are different skills required for mastering different media.

Macrolevel medium theory also offers one way of explaining why our schools now seem to be in perpetual crisis. Until recently, the school system played the primary role in giving young children access to general social information and in teaching children the basic skills they would need to gain access to nonlocal experience throughout the rest of their lives—text literacy. The many relatively new, nonreading ways to gain access to information now weaken the informational power of the school and diminish the incentives to learn to read and write well. Many schools now feel the need to redouble their efforts to teach traditional literacy skills, while attempting to help students process the information they receive through nontextual media. Yet, the added staff, time, and resources that would be needed to work on these two fronts are rarely forthcoming.

Meanwhile, as schools are struggling to do more, nontextual media also threaten the basic structure of the school system and the traditional authority of teachers. The system of separating students by chronological age developed only with the spread of print literacy (Meyrowitz, 1985, pp. 258–265). The system was based on the assumptions that most of what a child knows can be correlated closely with his or her age and reading ability, and that the teacher always knows more than the young student (Meyrowitz, 1985; Papert, 1993). The vast range of experiences

that children now have through nonprint media make age and reading ability much weaker predictors of children's knowledge and more often give even young children experience with topics and issues unfamiliar to their teachers.

Ironically, then, the medium-theory perspective clarifies one of the perplexing paradoxes of the media literacy movement: why there are so many fine efforts underway to incorporate media literacy in school curricula, and why so little formal and successful implementation of such programs has thus far been accomplished.

The model of multiple media literacies outlined here also suggests that there is no finite set of knowledge that will make someone media literate, and that it is unrealistic to expect any given media literacy program to teach all that we could hope children and adults would know about media. Nevertheless, wider awareness of these three general types of media literacy may enhance the ability of citizens to understand and participate more fully in a media-saturated society.

References

Altheide, D. L. (1976). *Creating reality: How TV news distorts events*. Beverly Hills, CA: Sage.

Barnouw, E. (1978) *The sponsor: Notes on a modern potentate*. New York: Oxford University Press.

Gans, H. J. (1979). *Deciding what's news*. New York: Vintage.

Hallin, D. (1994). *We keep America on top of the world: Television journalism and the public sphere*. New York: Routledge.

Herman, E. S., & Chomsky, N. (1988*). Manufacturing consent: The political economy of the mass media*. New York: Pantheon.

McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: Signet.

Manoff, R. K., & Schudson, M. (Eds.). (1986). *Reading the news*. New York: Pantheon Books.

Meyrowitz, J. (1985). *No sense of place: The impact of electronic media on social behavior*. New York: Oxford University Press.

Meyrowitz, J. (1986). Television and interpersonal behavior: Codes of perception and response. In G. Gumpert & R. Cathcart (Eds.), *Inter/media: Interpersonal communication in a media world* (3rd. ed., pp. 253–272). New York: Oxford University Press.

Meyrowitz, J. (1994). Medium theory. In D. Crowley & D. Mitchell (Eds.), *Communication theory today* (pp. 50–77). Cambridge, England: Polity Press.

Papert, S. (1993). *The children's machine: Rethinking school in the age of the computer*. New York: Basic Books.

Savan, L. (1994). *The sponsored life: Ads, TV, and American culture*. Philadelphia: Temple University Press.

Schramm, W. (1973). *Men, messages, and media: A look at human communication*. New York: Harper & Row.

Schudson, M. (1995). *The power of news*. Cambridge, MA: Harvard University Press.

Sigal, L. (1973). *Reporters and officials*. Lexington, MA: Heath.

Webster, K., & Meyrowitz, J. (1995, July/August). Whose views make news? *Cable in the classroom*, pp. 10–11.

Zettl, H. (1990). *Sight-sound-motion: Applied media aesthetics* (2nd ed.). Belmont, CA: Wadsworth.