CHAPTER 1

Why Do We Need a Theory of Media Literacy

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Why Do We Need a Theory of Media Literacy

his introductory chapter presents an argument for why media literacy ▲ is so important. The beginning point for this line of argument is that the media provide so much information that we cannot physically avoid it, so we psychologically protect ourselves by processing it automatically. While this automatic processing does shield us from having to deal consciously with a large majority of those messages, it comes with some high costs. We risk avoiding too many messages, which would narrow our experience. Also, we risk turning too much control over to the automatic processes, which are themselves substantially conditioned by the media. Because the media have a very different motive for presenting their messages than we have for receiving them, we end up satisfying the media's goals at the expense of our own. Thus, we risk misperceiving the real world and misunderstanding its true nature. Also, as we become comfortable employing automatic processing with its focus on efficiency, we let our skills of meaning construction atrophy. With weaker skills, we come to depend more and more on the media to tell us what is important and who we should be.

I. Problem of Access to Information

For centuries, getting access to information was a major problem for virtually all humans. The elites who had the education and the wealth could get

the information they needed to make them knowledgeable and powerful. The others—and that included almost all people—could not get access to learned scholars, could not buy or borrow books, and were not able to read. Without access to information, most people were prevented from becoming knowledgeable.

A. Culture Flooded With Media Messages

With the rise of the mass media throughout the 20th century, the barriers to access were substantially reduced, especially with the spread of radio, then television, and then the computer. By the late 20th century, access to existing information ceased to be a major problem (see Table 1.1). For example, this year in the United States alone, about 65,000 books will be published, and each of these is available in public libraries or through online bookstores for a relatively modest price. Furthermore, books are only one channel of information. Throughout the world, radio stations send out 65.5 million hours of original programming each year, and television adds another 48 million hours. In this country alone, the seven major film studios have an additional 169,500 television programs in their archives.

 Table 1.1
 Information Vehicles

Medium	United States	World
Books (titles per year)	64,711	968,735
Radio stations	12,600	43,973
TV broadcast stations	1,884	33,071
Newspapers	2,386	2,386
Mass market periodicals	20,000	80,000
Scholarly journals	10,500	40,000
Newsletters	10,000	40,000
Archived Web pages	3×10^9	7.5×10^{9}

SOURCE: Information is from Lyman & Varian, 2001.

With personal computers connected to the Internet, people have access to more information than ever before. In the early 1980s, fewer than 5% of all American households had a computer; within 20 years, that number had climbed to almost two thirds of households (Statistical Abstract, 2002). The Internet gives people access to about 3,000 newspapers (Kawamoto, 2003). Also, the World Wide Web offers access to about 2.5 billion documents. These are the publicly available pages, referred to as the surface Web. There is also what is called the deep Web, which consists of pages that require memberships

and fees or are otherwise private. This deep Web has been estimated to be 400 to 550 times the size of the surface Web (Lyman & Varian, 2001).

B. Information Production Accelerates

Not only is information easily available to almost anyone today, information keeps getting produced at an ever increasing rate. In 1984, Peter Large computed that more information had been produced in the 30-year period after 1954 than in the 5,000 years before that date. Writing in *Megatrends*, John Naisbitt (1984) estimated that in the early 1980s, scientific and technical information was doubling every 5.5 years; he expected this rate to accelerate to a doubling of information every 20 months by the 1990s. As startling as these figures are, they are likely to be hopelessly outdated as estimates of the speed of information generation in 2004, because half of all the scientists who have ever lived on Earth are alive today and producing information.

C. Keeping Up

The information problem is no longer about how to get access. The much more pressing problem is how to keep up with all the information. For example, if you were to try to read only the new books published in the United States this year, you would have to read a book every 8 minutes for 24 hours each day with no breaks over the entire year. All that effort would be needed just to keep up with the new titles in only one country. You would have no time left to read any of the other 66 million book titles in existence worldwide (Lyman & Varian, 2001). Also, if you wanted to watch all the television programming broadcast in this year alone, it would take you about 550 centuries—if you took no breaks.

We have long since reached a saturation point; there is no hope of keeping up with information. As a result, the problem of gaining access to information has quickly shifted to trying to keep up, and then finding a way to avoid information. Information providers are now aggressively competing for our limited attention. This can be seen with advertising messages, which rapidly accelerate in terms of number, venues, and aggressive nature (see Table 1.2). The average person is now exposed to more than 300 ads on any given day, almost all of which were not sought out by the person exposed. If you asked people at the end of a typical day how many ads they remember being exposed to, most people could not recall more than a handful. This amounts to an unconscious exposure to more than 110,000 messages per year, or about 2 million by the time a person graduates from high school. That is a very large number of unplanned and unconscious exposures.

Table 1.2 Submersion in Ads

- From 1967 to 1982, the number of print and broadcast ads doubled. Since 1982, the number has quadrupled. In 1971, the average American was targeted with at least 560 ad messages per day; in 20 years, that had climbed to 3,000 per day. Third class mail (junk mail) in the 1980s grew 13 times faster than the population.
- Television: The average American household has the TV on more than 47 hours per week. Out of this time, about 12 hours are ads. From 1965 to 1995, ads on network TV got shorter and more frequent—the average length shrank from 53.1 seconds to 25.4 seconds, and the number of ads per minute increased from 1.1 to 2.4. In 2002, commercial clutter had climbed to 20:57 per hour in daytime television and 16:08 per hour in primetime (*MediaWeek*, February 18, 2002). Children's TV programs contain a high proportion of ads. Cable networks had the least amount (10:38 per hour on average) compared to broadcast networks (12:09) and independent stations (13:29) (Kunkel & Gantz, 1992)
- In America, radio programming can consist of 40 minutes of ads per hour.
- Newspapers are primarily ads now. The average newspaper is now more than 60% advertising; some are more. For example, the *New York Times* Sunday edition contains 350 pages of ads, which is well over 60%. Newspapers have given about the same amount of space to news content since 1910, however, because the overall size of newspapers doubled during that time, the percentage of the newspaper that contains news has shrunk by half.
- Sporting events and stadiums are themselves vehicles for ads.
- There are companies that sell ads in bathrooms. Stall-Boards places about 350 ads in public bathrooms in Southern California and has revenues of about \$1 million.
- Pepsi-Cola produced a TV commercial in space by filming Russian cosmonauts launching an oversized Pepsi can from their space station Mir.
- Even the Pope has been commercialized. The Vatican acknowledges that the Pope's visits are costly, so they have agreed to sponsorship. The Pope's 4-day visit to Mexico in the winter of 1999 was sponsored by Frito-Lay and PepsiCo.
- In Sweden, they have tried interrupting personal phone calls with ads.
- Half of all the money spent on advertising in the world is spent in the United States.

Marketers rely on quantity of exposures, not quality. As a result of this clutter, advertisers operate on a principle that each member of their target audience must be exposed to an ad a minimum of three times in order for it to make any kind of an impression. But such an operating principle itself causes the clutter to expand greatly each year.

We live in an environment that is far different than any environment humans have ever experienced, and the environment changes at an ever increasing pace. This is due to the accelerating generation of information, the sharing of that information through an increasing number of media channels, and the heavy traffic of media vehicles traversing those channels. Messages are being delivered to everyone, everywhere, constantly. We are all saturated with information.

II. Information Fatigue

The information explosion has changed the way we deal with messages from the media. Along with the quantity of information, the qualitative nature of information has changed. These effects are profound. However, they have happened so gradually over generations that they are not noticeable on a day—to-day basis.

A. Devaluing Messages

No single piece of information has any special significance to us any longer because so many pieces are coming at us all the time. If a person owns a single book, he or she will likely treasure it. But the owner of a library of 6,000 books is not likely to have a special attachment to many of them. And if instead, a person knows that she or he has access to the words in more than 60 million books through the Internet, that person is even less likely to think that any one of those books is indispensable or even much better than the rest in value. Also, if a person has to work hard to find a fact, he or she will likely feel it has great worth. But people who have to fight off an onslaught of facts every day are likely to develop an avoidant or even adversarial stance to information.

With so many facts and opinions circulating, it is difficult to decide consciously which to regard as the most valid or important. Because it is so difficult to know which are more valid, there is a temptation to avoid a careful assessment of the validity of each fact and instead to be satisfied to regard the validity of all facts as the same, even when they contradict one another. Over time, we come to believe that all facts have only ephemeral validity at best; if we regard a fact as correct, that characteristic is not especially compelling because the fact is likely to lose its validity quickly as the world changes. Also, because the information comes at us so fast, there is no sense of loss if we miss a message. Instead, we feel secure that in a few minutes the same message or an even better one will come along.

Thus, when all these low value messages rain down on us, we do not feel blessed; instead we feel defensive. How can we deal with it all? We know we cannot, so we have to ignore the flood without thinking about it. If we think about all the messages we are ignoring, there is a tendency to begin hating the pressure from the relentless flow.

B. Nature of Information Has Changed

The sheer amount of information has also affected the quality—or character—of that information. Over the course of the last century or so, the nature of information has changed. Messages have become shorter. When messages become shorter, they lose the detail that can provide people with a context for interpreting those messages.

Almost all media messages are fleeting, quick, and superficial. The length of messages is kept short to minimize the demands on us and thus to increase the chance that we will attend to the message. But the shortness of messages forces them to be superficial. Ideas presented in a 15-second advertisement cannot be developed in any depth. Nor can the ideas in a 60-second news story.

When messages become shorter, the context we ourselves bring to the understanding of those messages becomes more important. However, the superficiality of the messages makes it harder for us to construct a good context. For example, it used to be easy to categorize messages as being either information, entertainment, or ads. But now, news shows are using the entertainment formula, so they provide less information and more entertainment. Ads are becoming more like information and entertainment to mask their purpose. For example, info-mercials on television look like information shows but are really half-hour paid ads. Entertainment vehicles, such as Hollywood films and TV shows, are becoming advertising vehicles as ads are embedded in them. There are 30 companies operating in Hollywood to place products within movies and TV shows. For example in Santa Claus—The Movie, McDonald's paid \$1 million to the filmmakers to have a scene set in a specially constructed McDonald's restaurant; McDonald's also spent \$18 million on promotion and network advertising related to the film. CBS-TV's The Price is Right gets \$1 million in payments from product producers each year, in addition to the prizes the manufacturers give away on the show. What we commonly think of as purely entertainment messages are becoming hybrids where the senders of those messages have a different intention than the one we perceive.

Another factor that makes it difficult to construct context is the decoupling of messages from their senders. It is difficult—sometimes impossible—to tell who the sender is and, therefore, what the sender's intentions are.

With television, most people now have no idea what a broadcast station is and how it is different from a cable network. They do not understand that the two are very different entities with different regulatory constraints, means to access audiences, audience configurations, programming philosophies, and criteria for success (Walker & Ferguson, 1998). With Internet providers, it is difficult to tell who the sender really is and what the sender's intentions are.

Even when a television channel, radio station, or a magazine is named as a source, it is not always clear who controls it and who is making the decisions about the content. With the concentration of ownership in the media industries, very different messages may be controlled by the same people. Bagdikian (1992) conducted an analysis of media ownership patterns in 1983 and found that the control of the media was essentially in the hands of 50 people: These were the CEOs of the largest media companies, which in combination controlled more than half of the revenues and audiences in their media markets. Less than a decade later, Bagdikian found that the number had shrunk to 23 CEOs of corporations that control most of the country's 25,000 media businesses. The less we know about the media industries and their messages, the greater is our risk for being powerless to use those messages to fulfill our own needs for information and entertainment.

III. Automatic Processing

A. Response to the Information Flood

In a society characterized by aggressive media, we can try to avoid exposure. We can stop buying and reading books. We can cut back on our subscriptions to magazines and stop newspaper delivery. We can reduce our time searching for particular messages in radio, television, and the Internet. Exposures will still occur, however. We cannot avoid all media messages unless we expend a great deal of energy in avoidance, which then defeats the purpose of reducing our effort in dealing with all the messages.

When the goal is to reduce our effort, the strategy is to cut back on exposures that require effort and to tolerate exposures that would require effort to avoid. This tolerated exposure is done in an unconscious manner; that is, people try to expend as little mental energy as possible and default to automatic processing. This means they mindlessly follow habits of avoiding messages in the environment by not attending to them until something in the message triggers their attention.

We realize that it is hopeless to keep up with the information. The only sane response seems to be to protect ourselves. This means we must screen

out almost all the information. However, we still need to pay attention to some information; we cannot simply screen it all out and hope to survive in our information society. The challenge, then, becomes one of being able to pay attention to those info-bits we need while screening out all the rest of the flood of information. The way we meet this challenge is to rely on automatic processing of information: Our minds stay on automatic pilot, screening out all information until something of value to us triggers our attention.

The obvious advantage of automatic processing of information is that it provides us with an efficient means to avoid all the messages we do not need while giving us a means to filter in the few messages we want. However, there are negative consequences associated with this automatic processing. One of these consequences is that the automatic processing does not eliminate physical exposure. It only reduces attention, which is conscious exposure; there are still unconscious exposures. The information that gets into our minds unconsciously through automatic processing is more likely to lead to faulty interpretations than information that is consciously processed. Unconscious exposure is still exposure. When people are in a messagesaturated environment, they are still being bombarded by information; even though they are not paying attention. Messages still get into people's minds, if only subconsciously. For example, we might have the radio on in the car as we concentrate on driving, and when ads come on, we do not pay much attention. Then, later, we find ourselves humming a jingle; or a word phrase occurs to us; or we pass by a store and "remember" that there is a sale going on there. These flashes of sounds, words, and ideas emerge from our subconscious where they had been put by ads to which we did not pay attention. Over time, all those images, sounds, and ideas build up patterns in our subconscious and profoundly shape the way we think about health, body image, success, relationships, time, and happiness.

Almost all exposure to advertising is unconscious, yet it still works. Advertising works because it gets into the audience's unconscious without the audience attending to those messages and analyzing them. A very sophisticated marketing research industry spends more than \$7 billion each year to find out how to shape people's needs and behaviors; this is more money that the federal government spends each year on all of education.

B. The Default Model of Information Processing

The default model describes what happens when people have little awareness of media effects, the process of influence, and their own selves (see Figure 1.1). With default processing, the media are in control. The designers and programmers of media messages exert a strong influence over exposure



Figure 1.1 The Default Model

decisions by conditioning people to accept habitual patterns of exposure. As a result, most exposure is automatic with little mindfulness or planning. Meaning matching is done automatically. With little mental effort or awareness invested in processing the flow of messages, people are left to accept the obvious surface meaning of messages rather than constructing meaning for themselves.

When processing information from the media, people most often use a default process. The advantage of using this process is that it requires the least mental effort. The media set and shape expectations, which are rarely not met. So people have a relatively pleasant experience with the media. With their expectations unchallenged, people then continue to let the media set those expectations and shape their behavior. People stay in the automatic mode, which is the default.

The problem with following the default model is that people maximize the media's control. On a superficial level, this may not appear to be a problem; that is, many times, people do not have strong conscious preferences for media exposure so they fall into a habit. They just want to relax, and it does not matter what they watch, especially because they are really not paying that much attention to the actual content. When following this habit, people do not think much about possible negative consequences, such as wasting a few hours watching television. If negative consequences do occur to them, those consequences are regarded as trivial.

What people miss in this superficial reasoning is the bigger picture. Their exposure is not an isolated event with no consequences; instead, it is part of a pattern that has many serious consequences. As people spend more time in habitual, mindless activity, the media are conditioning them by defining what news is, what entertainment is, and how to solve problems with advertised products. These associations are shown with attractive images and pleasant emotions. Also, these associations are repeated endlessly. When people then ignore the challenges of meaning construction and instead default to only matching meaning, people are left with only media conditioned associations.

With the default model, the media largely determine the exposure. This means that either people have not made a decision to expose themselves at

all to the media (thus messages inject themselves into their environment without their seeking them out) or people have sought out a kind of exposure, which has opened the door for many other messages and other exposures have attached themselves to that selection. For example, a person decides to watch a particular TV show but is also exposed to ads, promotions for other shows, etc. The exposure is automatic, that is, the person continues in the exposure environment without actively processing any or much of the messages. Meaning matching happens automatically, and the person does not challenge any of the meanings presented.

The media are conditioning us to accept their control. This can be seen in the way the newer media deliver their messages compared with the way the older media deliver messages. With print, which is the oldest of the mass media, consumers have had almost total control over exposures. Books cannot expose themselves to consumers; people have to take the initiative to go out to a store or a library. Magazines and newspapers are a bit more intrusive because they are delivered to our doors, but we need to subscribe for this to happen. Also, with all forms of print, we control the exposure sequencing and pace. We can begin reading a magazine with any story, read the stories in any order, and read the stories as fast or as slow as we want. Thus, with the print media, we exert a relatively high degree of control over all the important exposure decisions: whether to be exposed or not, which stories to read and in which order, the timing of the exposure, and the pace of the exposure.

With the arrival of electronic media, new forms of control were established that contrasted with print media. In the 1920s, radio was introduced and people began to lose some of their control over the media exposure. Of course, radio requires that someone turn on a radio receiver in order for information to flow, but once the audio is in the environment, everyone is exposed. In this way, radio is more intrusive than print. Also, radio controls the timing, sequence, and pacing of the messages. If you want to listen to a particular show, you have to tune in when the program is broadcast. You have to listen to the messages in the order they are broadcasted. Radio producers control the interruptions (for ads) and can suspend the story (as in serialized stories). Of course, some magazines present serialized stories, but an audience member can wait for all issues to be published, then read them all at once; this is not possible with serialized radio dramas. Radio and then television trained us to structure our lives around certain times when their shows were broadcast; they trained us to tolerate interruptions for commercial messages; and they trained us to develop weekly habits of exposure.

Over time, some technological innovations have been made available that potentially give people more control over media exposures. For example,

tape recorders, then MP3 players, enable people to rearrange audio messages through editing; also, people can control the playback time. VCRs do the same for video. Computer software seems to give people more control over searching for information (Web browsers and search engines). However, to use these technologies, we have to expend more effort. We have to scan more messages to make our decisions about what to record or use, and this serves to increase our exposures. Therefore, most people stay with their mediashaped habits of exposure most of the time. Also, these technologies have hidden features that serve to reduce our control while making it appear that they are increasing our control. For example, Internet Service Providers (ISPs) and search engines make people feel that they are in control of their Internet searches, but these devices constrain people's access. ISPs have links to favored Web sites while excluding others. Search engines cannot possibly access more than a small percentage of Web pages, so the decisions concerning which pages to access lies at least as much with the search engine company as with the user.

Today, the number of messages bombarding us is at an all time high, and it continues to grow. The providers of those messages are at a high point in being able to control our knowledge, our attitudes, and our behaviors. However, at the same time, we have more potential now than ever before to control our own exposures and their effects on us, but sadly, few people recognize this potential. Most people are either too fatigued by the onslaught of messages to confront the situation consciously, or if they want to confront the problem and gain control for themselves, they are not sure about what to do.

This constraining of choices would be less dangerous if there was a balance of choices across the potential range of audience interests. However, media businesses construct the constraints to achieve their own economic objectives; that is, they provide only those services that they feel will generate the greatest revenues while keeping their expenses as low as possible. Of course, revenue is associated with audience size, so people do have an influence on what messages get offered. However, it is not as simple as saying that the largest audiences will command the messages. This is because audiences are not the only source of revenue for the media; with some media, the message providers are also a source of revenue. For example, cable television companies charge cable networks to carry their signals, and they charge subscribers to access these signals. There are two sources of revenue. Let's say a cable company finds it has an open slot on its channel menu and is considering whether to schedule Service X or Service Y. The cable company knows that demand for Cable Channel X among its subscribers is very high but that the provider of Cable Channel X is not willing to pay to get on the cable

company's menu. Let's say that demand for Cable Channel Y among subscribers is low but that the provider of Cable Channel Y is willing to pay a good deal of money to get on the cable company's menu. In this case, it is likely that the cable company will fill the open slot with Service Y to make more money, even though the demand is much higher among subscribers for the other service.

C. Faulty Meaning Construction

The information-saturated environment and our response to it leave us vulnerable to faulty beliefs. Either we accept the beliefs presented to us in the media, or we construct our own beliefs, which tend to be faulty if we rely on the superficial and spotty information we absorb during automatic exposures.

Three factors converge to maximize the conditions that would lead us to accept faulty beliefs about the world. One of these factors is the superficial nature of most information presented in the endless stream of short snippets. Second, the media businesses do not want our attention as much as they want our exposure. Entertainment providers do not want critical awareness that might lead to objections about content; they want simple, habitual exposure that they can count on week to week. News providers do not care if audiences engage the issues as much as if they maintain their habits of buying the newspaper and watching the evening news each day. Advertisers do not want attention that would lead to a critical analysis of their claims; instead, they want unfettered access to people's unconscious where they can plant images, jingles, and logos. The media have conditioned us to become comfortable with a lack of context for the information they provide. Without context, we cannot construct our own meaning for the messages; instead, we must accept the superficial meaning provided by the short messages. Over time, we either get used to liking messages with no context (superficial entertainment) and unattributed news accounts or accept the media constructors' context. Thus, we are being trained to tune down our powers of concentration. Over time, we lose the ability to look for a sustainable argument supported with reasonable evidence.

The third factor is that we encounter almost all of these messages in a state of automaticity, that is, mindless acceptance, where we are not interested in investing the effort for conscious attention, much less the effort to analyze and evaluate the messages and to find more information to construct more accurate interpretations. This combination of factors leads us to accept many beliefs that are faulty.

1. Faulty beliefs. A fruitful place to observe faulty beliefs in the general population is to examine the results of public opinion polls. Often, these polls ask people about issues that would seem to be very important. However, when we look at the patterns of public beliefs, we can see that many people are not really well versed about these seemingly important issues. We can see that these beliefs are clearly faulty either because they are not accurate reflections of reality or because they are not logically consistent.

In public opinion polls about crime, for example, only 17% of people think crime is a big problem in their own community, whereas 83% of Americans think crime is a big problem in society (Whitman, 1996). Most people do not experience crime in their own lives and therefore do not think it is a big problem where they live. However, they are convinced it is a big problem in society. Where could the public get such an idea? From the media's fixation on deviance in the news. Also, the news media prefer to present sensationalized events rather than typical events. When a crime is reported, it is usually a violent crime, following the news ethic of "if it bleeds, it leads." Watching evening newscasts with their highlighting of crime and violence leads us to infer that there must be a high rate of crime and that most crime involves violent assaults. In reality, less than 20% of all crime is violent. More than 80% of all crime is property crime committed when the victim is not present (U.S. Department of Justice, 1999). Furthermore, the rate of violent crime has been declining in this country for the past decade, in terms of both crimes reported to the police and actual victimization rates. Yet, in a recent poll, only 7% of Americans believed that violent crime had declined in the past 5 years (Whitman & Loftus, 1996). People have remembered a few crime stories and gory images, but they have not taken an active role in finding out what the true crime rates are. They have fashioned their opinions based on sensationalized events, and this type of information provides no useful basis to infer an accurate picture about crime.

In a wide range of public opinion polls, we find that people not only exaggerate problems with crime but also overestimate problems with health care, education, religion, and family, believing that they are all serious, growing problems. For example, with health care, 90% of adults think that the health care system is in crisis, but at the same time, almost 90% feel that their health care is of good quality. About 63% of people think other people's doctors are too interested in making money, but only 20% think their own doctor is too interested in making money. As for education, 64% give the nation's school's a grade of C or D, but at the same time, 66% give their public school a grade of A or B. As for religion, 65% say that religion is losing its influence on American life, whereas 62% say religion is becoming

a stronger influence in their own lives. As for responsibility, almost 90% believe that a major problem with society is that people don't live up to their commitments, but more than 75% say they meet their own commitments to families, kids, and employers. Nearly half of the population believes it is impossible for most families to achieve the American dream, whereas 63% believe they have achieved or are close to the American dream. From 40% to 50% think the nation is currently moving in the wrong direction whereas 88% of Americans think their own lives and families are moving in the right direction (Whitman, 1996).

Most people think that the media, especially television, have either a very strong effect on other people or no effect at all. They have an unrealistic opinion that the media cause other people to behave violently. Some people believe that if you allow public service announcements (PSAs) on TV about using condoms, children will learn that it is permissible and even a good thing to have sex. This is clearly an overestimation. At the same time, people underestimate the influence the media have on them. When they are asked if they think the media have any effect on them personally, 88% say no. These people argue that the media are primarily channels of entertainment and diversion so they have no negative effect on them. The people who believe this say that they have watched thousands of hours of crime shows and have never shot anyone or robbed a bank. While this may be true, this argument does not fully support the claim that the media have no effect on them; this argument is based on the false premise that the media only trigger highprofile, negative behavioral effects that are easy to recognize. However, there are many more types of effects, such as giving people the false impression that crime is a more serious problem than it really is or that most crime is violent.

There is a faulty belief in this country that television is to blame for the educational system not being very good. The media often present reports about how poorly this nation's youth do on learning compared to youths in other countries. The 1998 National Assessment of Educational Progress (NAEP), administered nationally by a group established by Congress, reported that one third of high school seniors lack even a basic understanding of how the American government is run, and only 26% of seniors were considered well versed enough in civics to make reasonable, well-informed choices during elections (McQueen, 1999). The NAEP reports that only about one quarter of American school children have achieved the proficiency standard in writing (Wildavsky, 1999). Reports like this lead critics to complain that children in this country watch too much television. However, the same report says that students in Japan rank third on both tests, although they watch as much television as American kids do, but this bit of information is rarely reported.

Many conscientious parents have accepted the belief that it is bad for their young children to watch television. They believe that TV somehow will make their children's minds lazy, reduce their creativity, and turn them into lethargic entertainment junkies. If this happens, children will not value achievement and will not do well in school. This belief is faulty because it blames the media, not the child or the parent, for poor academic performance. It also focuses only on the negative effect and gives the media no credit for potentially positive effects.

This is an important issue, but again, it is not a simple one. When we look carefully at the research evidence, we can see that the typically reported finding is wrong and that when we look more carefully, there are several effects happening simultaneously (see Potter, 1987). For example, the typically reported finding is that television viewing is negatively related to academic achievement, a fair amount of research supports this conclusion. What makes this faulty is that this relationship is explained better by something else: IQ. School achievement is overwhelmingly related to IQ. Also, children with lower IQs watch more television, so it is IQ that accounts for both lower achievement and higher television viewing. Research analyses that take a child's IQ into account find that there is no overall negative relationship; instead, there is a much more interesting pattern. The negative relationship does not show up until the child's viewing has passed the threshold of 30 hours per week. Beyond that 30-hour point, the more television children watch, the lower their academic achievement, and that effect gets stronger with the more hours they watch beyond that threshold. This means that academic achievement goes down only after television viewing starts to cut into study time and sleep. Children who view less than 30 hours of viewing per week experience no negative effect. In fact, at the lowest levels of television viewing, there is actually a positive effect, that is, a child who watches none or only a few hours a week is likely to do less well academically than a child who watches a moderate amount (12 to 15 hours per week). Thus, the pattern is as follows: Children who are deprived of the source of information that television provides do less well in school than children who watch a moderate amount of television; however, when a child gets to the point where the amount of television viewing cuts into needed study time, academic performance goes down.

What effect does viewing television have on a child's academic performance? We could give the simple, popular answer: There is a negative effect. However, now you can see that this answer is too simple. It is simple-minded and also misleading because it reinforces the limited belief that media effects are negative and polarized and that the media are to blame. The reality is not so simple and does not lend itself easily to a short sound bite or flashy image, so it is not likely to be presented in the mass media.

2. Misguided criticism. Public opinion polls consistently reveal that people think there is too much violence in the media (see Potter, 1999). When we examine what bothers the public the most about the violence they see, it is graphicness. Violence that is portrayed as gory with lots of blood and harm to the victims is what offends audiences and stimulates their criticism. Programmers are aware of this criticism, and they respond to it by changing the way violence is presented. Instead of reducing the amount of violence, they sanitize it so that little harm to the victims is usually shown. Thus, the graphicness is reduced and public criticism along with it.

The public criticism and the industry's response display a sad irony. The kind of violence that upsets people the most is precisely the type of violence that they need to be exposed to more. In contrast, the violence that most people do not complain about—or even perceive—is doing them the most harm. If a show presents a highly graphic act of violence, people will complain, but this is a good thing. It shows that people are sensitive and that these portrayals can outrage them. When these portrayals fail to outrage them, this is clear evidence that they have succumbed to the negative effect of desensitization. The fact that people do not complain about the moderate- or low-level graphic acts is an indication that they have become desensitized to much of the violence (see Potter, 2003).

Desensitization is only one of many possible negative effects. Let's examine another negative effect, loss of inhibition. We have natural inhibitions toward being physically aggressive to the point of harming others. When we are exposed to a portrayal of a relatively minor physical act of aggression in which the characters are attractive, justified in their actions, and get away with the action without punishment, our inhibitions erode a bit. When we are exposed to a half dozen of these portrayals every hour for years, our inhibitions substantially erode. If we are totally unaware that this is happening, we cannot stop or control its effect on us.

Also, the public is sensitive to the fear that people may imitate the violence they see in the media, and this stimulates criticism. However, the one form of violence, verbal violence, that viewers are must likely to imitate is the target of almost no criticism. People complain most about highly graphic acts of physical violence, but these depictions are not likely to lead to much imitation. Much more easy to imitate are the relatively minor forms of physical violence and especially verbal violence. We are much more likely to imitate a character who delivers a wicked tongue lashing that humiliates another character than we are to imitate a character who stabs another character to death. The public does not regard verbal aggression as violence. Yet, insults and harsh criticism can cause more harm to a person than cuts and bruises. The emotional and psychological damage can last a lifetime. Yet, verbal aggression comes to us "flying under our radar;" that is, we do not

notice it. The television networks, which are continually being criticized for the amount of physical violence, have not increased those rates over the past 30 years. However, the number of acts of verbal violence has increased dramatically since the 1970s (Potter & Vaughan, 1997). Seldom does the public complain about verbal violence because we do not notice it, or if we do, we are not bothered by it.

3. Why the faulty meaning construction? We create most of our opinions using very little information and information that gives us only a superficial understanding of issues. It does not have to be this way, because so much information is available to everyone all the time. Why, then do we still use so little information as a basis for our opinions? The answer is that we have information fatigue. Information fatigue leads us to automaticity, where our minds do not control either our exposures or the way that messages get into our minds. This unconscious exposure increases the probability that the information we receive is inaccurate. By inaccurate, I do not mean that the media are presenting biased or nonfactual information to us, although there is some of this. The condition of inaccurate information is traceable much more to the fact that our information base is filled with partial understandings, facts without context, facts that are out of date, and unsorted impressions where conflicting information resides unresolved in our memories. With this type of information as our base, it is no wonder that many of our beliefs are faulty. As long as we continue with unconscious exposure, our absorption of more information will not translate into better knowledge; instead, more information will only increase our stockpile of faulty beliefs. Habitual passive exposure to this constant flow can serve to reduce our literacy if we merely float along in the stream of messages. If we accept unquestioningly the images in these messages, we can end up with faulty beliefs about the world and ourselves.

Our opinions can get started in all sorts of strange ways, and often, they are not based on sound reasoning or in-depth knowledge of a topic. Opinions can spontaneously spring forth in surveys or conversations, without much thought or foundation. When it comes to the media, we often create opinions based on intuition or on partial, anecdotal information. We often look for high-profile anecdotes in the media and in our real lives.

IV. Conclusion

We cannot physically avoid the glut of information that aggressively seeks our attention in our culture. Instead, we protect ourselves by psychologically avoiding almost all of the messages in the flood of information. We do this

by following the default model of information processing where our minds are on automatic pilot. This automaticity allows us to avoid almost all messages and to do so efficiently. However, automaticity comes with a price. We allow the media to condition us while we are in this automatic state. The media condition us to habitual exposure patterns to the messages they want to present. This increases the risk that we will miss many of the messages that might have value for us. The media also condition us to accept unchallenged the meaning they present in their messages. This increases the risk we will accept faulty meaning.

Without a good understanding of the media, their messages, and the effects, people can develop misunderstandings and misperceptions about their world. Those who fail to develop their media literacy will get swept along in a tide of messages. Knowing a lot about current events presented by news organizations does not necessarily mean we know what the problems in the world are—or how to deal with them. The media can give us a false sense that we are knowledgeable.