

nanostructured sensors and nanoelectronics; and thermal barrier and wear-resistant nanostructured coatings. There are huge possibilities.

Now let me wrap this up with a call for action. I believe we need to raise the bar in materials technology. I believe we should be discontent to simply improve upon old technologies. I believe in what poet Carl Sandburg wrote: "Nothing happens unless you

first dream." We need to dream again. Dream about new formulas, new metals, new materials. Dream about nanoscience, nanoengineering, nanotechnology. Dream about the possibilities, the opportunities, and then make our dreams come true. Then, and only then, can we unlock exciting frontiers with our discoveries. And I believe this conference is a perfect place to start. Thank you.

## The Coming Age Of Content and Critical Thinking

By Robert L. Dilenschneider

*Robert L. Dilenschneider is founder and chairman of The Dilenschneider Group, Inc. His remarks were presented to the Public Relations Society of America in Atlanta on December 7, 2000.*

I was delayed a bit leaving my office today for the airport. I went in early to clear off my desk and get things underway before I left for Atlanta. But I had to contend with 66 new e-mail messages in my queue before departing.

Two or three of them were important and required my immediate attention. More than 60 were of no moment. The information in them was trivial at best and easily could have waited my return or simply been scrapped entirely.

This is not unusual. Not for me and, based on comments from CEOs and other top management types I deal with daily, not for many of them.

On arriving in Atlanta, I started to receive calls on my cell phone. None were critical. And coming into this room, I saw three people urgently scanning their *Palm Pilots*—two seemed to be checking their schedules and the other was seeking "up to the minute" news.

It was clear that most of this, if not all of it, was unnecessary.

I mention this up front because it illustrates perfectly the topic of my remarks today—*The Coming Age of Content*.

We are said to be living in the Information Age, an era when all of the information accumulated by mankind over the ages, is literally at our fingertips, available to us virtually instantaneously. We can get what we need to know through the Internet and its WorldWide Web, or through some of the other marvels of Information Technology.

There are some who question this, who ask "if this is the 'Information Age' then why are so many of us ignorant or ill-informed?" This, of course, is a legitimate philosophical question, but it is not one that I am inclined to pursue in any depth today except to say that information does not equal knowledge and knowledge does not equal wisdom.

But T. S. Eliot, one of the greatest American poets, said it better in *The Rock*: "Where is the wisdom we've lost in knowledge/ Where is the knowledge we've lost in information."

What I'm alluding to and what T.S. Eliot said much better is that all of this data and information that is so readily available electronically today does not necessarily make us better informed or wiser.

That is because data and information are merely ingredients for knowledge, not knowledge itself. Before they can become useful knowledge, they need to be absorbed, classified, appropriately applied, then melded into other relevant data and information.

In other words, we need to think about all this information. We need to think about what it means.

By the same token, knowledge does not necessarily

lead to wisdom.

All of us have in our everyday lives run across knowledgeable, well-informed persons who seem somehow unable to convert their knowledge into wisdom.

The term “fuzzy minded” describes that kind of person, who appears to know just about everything, but who is unable to apply this knowledge in any useful or practical way.

So, I join in rejecting the term “Information Age” for the period we are living in. I prefer the term “Age of Information Technology.”

The Internet, the World Wide Web, e-mail, voice mail, cell phones, pagers, personal computers, *Palm Pilots*, coaxial and fiber optic cables, communication satellites—all of these, and many more, are important and are part of the communications and information technology revolution that has truly changed, and in many ways, enriched our lives.

All of them in one way or another speed communications or make possible the storage, collation, or retrieval of immense amounts of data. But none of them, you will note, relate directly to my topic of *Content*. They are essentially delivery, collation or storage mechanisms for information, but bereft of any content save for that added by the sender or storer or collator.

While these marvels of communications and information technology have changed and enriched our lives, they have exacted a price in terms of stress, quality of life, and job satisfaction.

How many of you have to check your e-mails? How many of you feel you have to answer?

How many of you send e-mail recognizing that you may be better perceived as part of this process?

Moreover, to an alarming extent, these communications breakthroughs have weakened our ability to communicate substance and ideas. The late Norman Cousins, editor of *The Saturday Review*, once told me that the hardest task in life was to form an idea and get it completely from one mind to another. He was right.

And despite Marshal McLuhan’s contention that “the medium is the message,” the fact remains that, like it or not, the message is the message. And being bombarded—as we are with messages without content—wastes our valuable time, saps our energy, and, ultimately, deludes us into thinking that content is

irrelevant.

While these negatives apply to everyone who has become wired into today’s intricate web of communications and information technology, it is especially applicable to CEOs, top managers and people who are focused on the dissemination of messages.

Just as I think the term “Information Age” is a misnomer, the same applies to the term “information overload,” which supposedly describes the fact that all these messages we are receiving are supersaturating our brains and sensory systems with information.

A more accurate term in my view is “communications overload.” We are simply being overloaded with messages, many of which contain little or no relevant or useful information, that come to us through e-mail, voice mail, beepers, faxes, and so on.

These multitudinous messages, many of which are worthless, demand our time and our attention, interrupt our thinking, and often distract us from more important tasks. Yet many of us, including CEOs and top managers, somehow feel compelled to deal with them on an urgent basis, putting aside other business that often is much more important.

There are a number of reasons why we do this, silly as it seems. Here are a couple of them:

- These incoming electronic messages are by their nature, disruptive and compelling. The cell phone rings, demanding you answer it. The beeper or messaging device vibrates, commanding your attention. Your PC announcement that “you have mail” is designed to get your immediate attention.
- The electronic messages are most often easy to respond to and the more trivial they are the easier the response. For example, while you are at your computer sweating over the precise phrasing of a directive to employees or an answer to a shareholder’s question, the “you have mail” message flashing across the screen seems like a reprieve that is hard to resist.
- Immediate response to these messages completes a transaction, thus providing a sense of accomplishment and satisfaction.

These electronic messages have even a more seductive appeal to CEOs who put a high premium on control. Having subordinates report back their every move provides the appearance of control, but this is illusory.

The fact is that such a tight-leash reporting scheme

actually transfers control to the subordinates who can generate the appearance of real progress by overwhelming the boss with messages that simply create the illusion of forward movement.

I am greatly concerned that this *busy-ness*, this preoccupation with shuffling electronic messages back and forth has become so time consuming that it leaves little or no time for thinking, for analyzing, for creating, for putting substance and content into our work.

This is not only a top-down problem, from the boss down the feeding chain to the employees, but it has become a bottom up problem as well.

I am distressed that in our high schools, colleges, and universities, increasing emphasis on instructing students on the mechanics of operating computers and learning the programs that drive them is supplanting instruction on how to write and think critically.

One of our senior consultants, a long-time journalist who now teaches journalism and public relations at a midwest university, deplors the fact that advanced writing courses are now being replaced in the curriculum by courses on how to use the new communications hardware and software.

"We are now focusing more on how to use the tools of communication than we are on how to effectively communicate," he complains. "As a result, we are turning out computer and Internet gurus who can't write and can't think creatively."

Is writing and thinking creatively important? Is substance important? Is critical thinking important? You bet it is.

Making your point to your boss requires more than information. It demands the critical thinking that convinces the boss of your point of view.

From the time Gutenberg's movable type made the mass-produced book possible, through the telegraph through the *Palm Pilot*, we have faster and faster ways of delivering information.

Today we are overwhelmed by it. Everyone has a website, and we are awash in unedited "facts"—some true, some doubtful—which we eagerly pass on.

The fact is, we are using our electronic capabilities for games and gossip.

But more information does not solve our problems:

- ... that we have people starving in the world is not caused by lack of information.

- ... that there is crime in our streets is not caused by lack of information.

- ... that there are troubles in Northern Ireland, in the Middle East and in dozens of other places around the world has nothing to do with a lack of information or the technology that makes data available so quickly.

Today we need not just information—nor do we need speed—desirable as both of these are.

We need knowledge—that is information edited for accuracy and organized for a purpose. And we need more than that, we need wisdom. We need to be able to apply that knowledge to solve our problems.

At a dinner of lawyers and judges a few years ago in Lexington, Kentucky, one young attorney who was just admitted to practice asked why the older lawyers could charge so much when it was clear that he and his recent graduates could use electronic search engines to quickly find the answers.

Old Judge Joe Lee looked down the table and said, "Young man, you and your friends may be able to find the answers, but what makes these older lawyers valuable is that they know the questions."

As it is in law, and in business and in my own field—wisdom is knowing what questions to ask.

How do you get there?

First, I hope we can encourage people to obtain an education that goes beyond computer science. Robert Hutchins, who was Chancellor of the University of Chicago a half century ago, advocated a broad education. The fads of the time would change, he said, so the purpose of an education should be to "get ready for anything."

And then—after formal education—the way to wisdom is experience.

As Adlai Stevenson told the Princeton graduates in the 1950's: "What a man knows at 50 that he did not know at 20 boils down to something like this: not the knowledge of formulas, or forms of words, but of people, places, actions—a knowledge gained by touch, sight, sound, victories, failures, sleeplessness, devotion, love—the human experiences and emotions of this earth; and perhaps, too, a little reverence for the things you cannot see."

I often worry that we are training too many people to be proficient on computers and not enough who know the history and culture of civilization—people who can raise their heads out of their cubicles and

learn to ask the questions.

So, what's to be done? I want to be clear on this. I'm not a Luddite. I am not advocating smashing computers or spamming Internet sites. I do not call for cutting the coaxial or fiber optic cables or jamming the broadband spectrum.

What I am asking is that we step back a bit and examine some of the unintended negative consequences that have occurred in the wake of the tremendous beneficial advances we have enjoyed as a result of the revolution in information and communications technology over the past two decades.

Clearly we have to refocus on content in our communications. What we communicate and how well we convey these communications will always be more important than the medium of communication. There is a quote attributed to Henry David Thoreau, which may be apocryphal, but describes exactly the point I wish to make. Thoreau, secluded in his refuge in Waldon Pond, was not aware of the invention of the telegraph.

When it was described to him by a visiting friend as a marvelous new means of communication through which "a gentleman in Maine can communicate instantaneously with a gentleman in Texas," Thoreau thought about this for a minute and then replied: "But what if the gentleman in Maine doesn't have anything to say to the gentleman in Texas?"

I don't know what Thoreau's friend said in response, but the answer is obvious, even today. Don't send the telegram or an e-mail if you don't have anything to say.

Which brings me to my concluding remarks. What should the beleaguered CEO or top manager or top administrator do to stem the onrushing tide of communications overload so that he or she will have the time to deal more creatively with pressing problems at hand?

Let me cite my six rules to live by:

1. Set aside at least an hour a day for contemplation and analysis. Shut off your cell phone, switch off your e-mail, and tell your secretary to hold all calls. If you find your mind blank at first, don't panic. Hang in there. Thinking is hard work, but after a bit, thoughts will begin to emerge.

2. Pass the word to subordinates, colleagues and friends that you frown on frivolous communications during working hours—that phone calls and e-mail should be reserved for important and time-urgent communications.

3. Put out a directive banning the frivolous use of e-mail and personal or unnecessary phone calls during office hours.

4. Encourage others to set aside time for critical and creative thought. Let them know that you expect substantive input at business meetings and discussions.

5. Have your secretary or administrative assistant screen your phone calls and e-mail, eliminating any that are frivolous or unnecessary.

6. Encourage good, thoughtful writing by letting the writers know you appreciate it. At the same time, let those who write sloppy or unclear messages know that you expect better work from them.

I'm sure my six rules will not solve the problems of communications overload. But perhaps it will serve as a beginning.

Let me urge you to take decisive action now to check the onslaught of the information explosion that threatens to reverse the powerful observation of the late Thomas Watson, Jr. of IBM who said, "The computer is but a slave to the mind of man."

Let's keep it that way and never let it change. And if enough of us do this, perhaps we will speed up the inevitable march into the *Age of Content*.

Thank you.