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THE INFORMATION EXPLOSION

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When I'm invited to talk about the information explosion, and computers and things of that nature, I tend to see peoples eyes kind of fog over, and I can appreciate that. It's a little like the boy who didn't want to go to school and his mother kept saying, you know, "You got to get up and go to school." He says, "I don't want to go to school." She says, "You got to go to school." He says, "I just do not wish to go to school today." She said, "Look, you give me any reason why you shouldn't go to school, any number that you like, and I'll give you one that you should." And he said, "Well, all right. If you must know, mom, I'm a little tired of the kids calling me names -- tripping me as I walk down the hall and knocking me into the lockers, sticking gum in my hair, bugs in my desk, and generally making life miserable for me. Now, why do you think I should go?" She said, "Because you're 47 and you're the principal."

What we're talking about when we talk about the information explosion, what to look for, perhaps even, what to prepare for, it is a little bit like that person

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who says, "I really don't want to deal with this, today."

Because all of us in a certain sense are 47, and we are
in a sense, the principal of our own destiny, and what we
have to be able to deal with is this information explosion.

That's what our topic is today -- where we are, where
we're going, maybe a little bit about how to prepare for
it.

I think the person who follows me on the panel, is going to do a lot more about talking about the future, because that really is what the Naisbitt Group's great strength is, is to have certain indicators of where we are heading. So, I thought I'd kind of set the stage, and say, you know, how do we get to where we are.

We are living in a unique time and I suppose if I had been a speaker here a hundred years ago, I'd have said the same thing. There is one difference though; and that is, I can demonstrate, I think, the uniqueness of this time in the entire history of mankind.

There is alive in our nation today, people in their 70's, 80's and 90's, who as children grew up, not believing that you could fly. You know, if man was meant to fly, he'd have wings. As children they grew up essentially in an agrarian society. At the turn of the century most of our people were involved in some way or another, with an economy that had to do with an agrarian based society.

They grew up essentially in extended family relationships.

People lived in Jonesboro because all the Joneses lived there. There were cousins, aunts, uncles, sisters, brothers,

what-have-you. And they mutually supported one another in their ability to cope with and deal with life. And they were, ladies and gentlemen, the very last generation that we know of, in the history of mankind, in which the child necessarily received from the parent, the means of survival. The child learned how to shoe a horse, how to plow a field, how to bring in the crop, how to make clothes, How to do everything that was essential for physical -physical survival. And so when the child necessarily looked to the parent to say, "How do I live my life?" The parent, in effect, gave that child the moral code, the sense of justice. The sense of however they were to live their life. We have a broad middle generation, people who are roughly between the ages of 40 and mid-70's, who as children, grew up not believing that man could go to the moon. That was science fiction. That was Buck Rogers. That was all that Dick Tracy stuff, you know, talking and coming in on your special wrist radio. As children grew up in essentially, an industrial society, major shift -major, major shifts totally oriented toward industrial, as children grew up in a nuclear based society. By this time sisters lived in Cleveland and brothers lived in New York City. And by this time a certain shift in how one got to deal with survival, because that was a survival age with depression, wars, et cetera. Whereas, in an earlier generation it was land based, and there was a very clear identity in terms of survival, you know, "What does Daddy do?" Well, Daddy is a farmer and he plants the

field, and he's out there doing it, and you can go out there and stand behind him and help him do it, and you can learn by watching, and doing, and feeling. In the industrial society, "What does Daddy do?" Well, this is a wedget and he makes a thousand per hour, and you can go down to the factory and watch those wedgets being made, and there's a very close relationship there of what a person does with a sense of oneself. A very objective kind of way of looking at life. But also in this split up of the family, from the extended to nuclear, we took on, in terms of expertise, someone other than -- or, began the process of asking someone other than the parent, the questions -- the basic question of "How do I live my life?" If you didn't know, you might ask your minister. If he didn't know, you might ask Ann Landers. If you want to know how to set the table, ask Amy Vanderbilt or whichever Vanderbilt was telling us at that time. Now, it's "What kind of jeans do I wear, with Gloria, but at that time there was the expert. There was always the expert out there.

And what do we have now? We have a generation growing up in which, first of all, there is a sense that anything is possible. I mean if you can send a man to the moon, you can rebuild New York. Maybe we ought to just send the man to the moon and leave New York alone, but that's not the point. The point is that you can do anything in a certain sense.

Growing up in sequential family relationships.

Divorce and remarriage is so prevalent in our society today, that most people have a number of fathers, step-fathers, et cetera.

And growing up in a service or information based society, which is distinguished in a number of ways, not the least of which, it is not an objective society. I mean it is not objective fiable in terms of what one does on a day to day basis. I don't know how many times you go to a party and ask meet somebody new and ask "What do you do?" And, they begin by telling you their title, and then they say, "Well, let me explain what it is I do not do." You see, because there are always these conditional kinds of things. I have a case in mind of a police officer, who was made a community relations officer. And his child who was about eight or nine, was really quite disturbed by this. I mean he could understand daddy in a uniform and a holster and the concept of arresting, and taking care of law and order. But suddenly daddy had a suit on, and he went to an office. So, his mother says, "Why don't you go down and watch what he does?" Well, all he did was sit at a desk and talk on the telephone all day. It is a very subjective kind of society. Very difficult to explain to people on a day to day basis what one does.

I say I am a political consultant, and the easiest way to explain that is, people come into me and say, "Well,

I want to run for office." I had a man come in the other day and say, "Well, I have half a mind to run for office."

I said, that's about all it takes.

I just want to make sure you are all awake and with us here.

What I'm suggesting is that we have alive, and well, and breathing today, at least three distinct generations of people, among whom there are some basic communications problems. The basis for their way of judging what goes in a society, shifts from generation to generation.

When I graduated from high school -- I was born and raised here in Washington -- when I graduated from high school in 1955, the really sharp students who did not choose to go on to college, saw as a career -- and a very exciting career if they got it -- the opportunity to go to work for the IRS, or the CIA. Growing up in this town, you knew when someone said, "I can't tell you who I work for." Oh, you work for the CIA. You know, it was one of those in-things we all knew. But, what I'm getting down to is that shifted over time, because another distinguishing characteristic of this under-forty generation, is that they've questioned all institutional authority. Some say it was the Vietnam conflict, some say there are other things. There was the black revolution, the women's revolution -- there were anumber of revolutions that went

on in our society, but the fundamental thing that came out of that is the questioning of authority. The questioning of structure in society. Tofler and others talk about it in terms of a number of interesting scientific things going on zeography, jet travel — I mean the fact that you can have breakfast in Paris and have another breakfast in New York. The speed with which you can move around the world. The speed with which you can get information, is what brought about what we're talking about in terms of the information explosion.

Certainly television, a major pervasive influence on our lives. I have a friend who tells me this is a true story. An eastern U.S. senator who went out to a farm state, so he says, and stopped in at a local market there to pick up something. And the fellow who ran the market said, "Say, I know you. I've seen you on television. You're one of those politicians back in Washington, right?" and he says, "Well, yes, as a matter of fact I am." You know, preening himself a bit. He says, "A lot of really smart people back there in Washington, aren't there?" My friend allowed as how there are a lot of smart people here in WAshington. He said, "I bet there are a lot of dumb people in Washington, too, aren't there?" He said, Yes, I got to admit there are a lot of dumb ones too." And the fellow looked at me and said, "I guess at times it

is kind of hard to tell the difference, huh?" At any rate, that's part of the pervasiveness of television. We all seem to know a lot of what's going on. I happen to think the other day that it wasn't that the Pentagon wanted to prevent the press from covering the invasion into Grenada, I think it was the difference of not wanting television there. Now, when you cover a war in print, it's very easy for someone to change an adjective or eliminate an adverb or change the subject or it's easy to change the words in print, but that television is so pervasive. And then we have — what we want to move into is the concept of computers and the impact on our life.

When we're talking about computers, that's where we're really talking about the information explosion because what the computer does is bring to us instantaneously an enormous wealth of information. And I say "information" because when we're talking about it, and I hope we keep clear amoung ourselves, we're talking about the information explosion -- we're not talking about the intelligence explosion. There is a major distinction. Computers are, after all, nothing more than electronic filing cabinets. They can provide enormous data; and they do. But that, in fact, is what is scarey to us. And what I think we are talking about when we talk about the information explosion, and moving toward the year 2000, and the communication

problems that exist at the moment, is a fear of having to deal with even more information. I mean, I marvel at listening to someone talk about genetic engineering. And Yet, I don't know how many people in the audience, or how many people nationwide, say, "Should we really be fooling around with those things?" And what does it all mean? Again, I say when I grew up, I thought I knew what murder meant, I mean that seemed to me to be a pretty clear concept. But when, as happened in Illinois, not too long ago, someone takes a revolver and shoots someone else, and the person who is shot is taken to the hospital, and the life support system says this person is dead, and the brain machine says there is life, but the doctor believes the life support system, so they take the heart out and ship it out to Oregon where somebody is waiting for a heart transplant. And when the District Attorney starts to bring charges against the individual who had pulled the trigger, the Defense Attorney say, "No, no, my man didn't kill him, the surgeon killed him." You see. When you are watching television, you watch about a Karen Ann Quinlan, you see, all of us grew up in ages where life and death were fairly simplistic or simple concepts. There was a sense of black and white.

What the information age has done, and particularly through computers is cause a lot of gray to be thrust upon

us in which we have to make decisions we never had to think about before, enormous decisions with tremendous political consequences. If you live in major cities, as do I, the number one priority in the few years ahead will be what we talk about as infrastructure. You know when I go to LaGuardia airport, I am not quite certain if that bridge that I go across is going to fall into the East River. And when I turn on a tap of water, and I know that the water reservoirs and the pipes are over a hundred years of age, I'm not quite sure what's going to come out. And the infrastructure of our society has to be taken care of. Secondly, if we're talking about gray areas and the kinds of difficulties that we've never had to deal with previously. We're talking about a major political problem which no one really wants to give anything but lip service to, and that is the whole question of immigration. It's something that is going to pull this country apart. It already has to a certain extent. We will have, as Mr. Naisbitt has pointed out, and others, very shortly -- say the state of Texas, a situation not unlike Quebec, two people, two languages. And how that group will be assimilated into the United States is a major problem for us to be dealing with. If we're talking about the kinds of things we're going to be dealing with, water is a problem, a major problem. But certainly beyond that, we

have a population that is aging, and who is going to pay for all these things -- Social Security being one of them. So, we are getting back to computers and the amount of information, and the fact that we can use them, how do we use them, and we say well, people are a little bit afraid of this information age, and I would suggest to you they are also afraid of computers. One of the interesting problems we have when we deal with computers with our clients is getting them over that hurdle, the real fear you know, to many men it's, machismo, I don't want a keyboard around me. That's secretaries work. And to the liberated woman, who is now an executive, the same thought, I once had a secretarial job, I'm not going back to that. That's why computer manufacturers are trying to come up with computers that don't have keyboards, to try to get over that concept that perhaps it is something to be looked down upon. But I would suggest to you, we have to learn computers, in fact, Mr. Naisbitt again, not to steal your thunder, talks about the two languages you have to learn, one being Spanish because of that population -- an enormous population, with enormous political consequences for all of us. You also have to learn computers, whether you want to or not. But let us assume for example, that you are 35 years of age, physically, 35 years of age, and if you are, it means that you will retire, theoretically

retire from active business career in the year 2013. Very few people think about the year 2000. Why? Because none of us have ever had to think about it. In our day to day lives, we write 19. We write checks, if you are able to write them in this day and age. Or, we sign letters, but we always use the word "19". The year 2000 is kind of mythical. It's kind of magical. There are those of us alive and well today who are in active producing careers who will retire from that career the year 2013. If we think we can survive between now and then without understanding computers and how to operate with them, and how to process this enormous amount of information, in order to make intelligent decisions, we're making a major mistake. I mean, I know there are people who are fighting against this. There is a major, major political movement in the United States today -- the fundamental movement -and I'm not trying to suggest anything other than it's there, and that many people impart that we've got to return to a fundamental sense -- right and wrong, et cetera. A very real feeling because of this sense, you know, too much is going on. They of course, have as a contrast, the Unitarians. Those who don't know, I'm told that the Unitarians are those people who believe that when Moses came down from the mountain he brought with him the ten suggestions. But, there is a very strong

real movement in America today, on that basis -- the fear of -- you know, the change is too rapid, and yet, you can't roll back the clock. So, I'm suggesting that person who is 35, first of all, in order to survive has to learn computers. Secondly, he or she may have hired somebody today, just out of college or just out of school who is used to working with computers. They've got to be put into operation. And, if you walk into a company today, or perhaps onto a modern farm today, without computers, the first question is, "Why don't we have computers?

I mean we had them in school, why don't we have them here?"
See. And you're talking about the communication gap, how do you deal with your children, quite apart from playing games -- quite apart from playing games.

When I was in the fourth grade, I remember distinctly because I went to a school where it was the only non-nun and so I couldn't forget this -- but also, prior to Ash Wednesday, we had Shrove Tuesday, and if I could stand, or if all of our classmates could stand and in a loud clear voice recite the multiplication tables, we would be rewarded with cocoa and doughnuts. A wonderful experience, obviously, it stayed with me all these years.

Well, today, by the second grade, children have learned binary equasions. I mean, I don't know of anybody that does the multiplication tables any more. But, what

I'm saying is the whole shift of the education. If one is saying, "Well, how do I deal with my children?" I'm saying if one is dealing with ones sense of how one is going to deal toward the year 2000, one learns computers. If one is going to deal with ones colleagues, one has to learn computers. And, I'm saying if one wants to deal with those 4, 5 and 6 year old children, one must learn computers, and not, as I say, just to play games.

It would be nice to return to a simpler time, the time of just black and white, but that is not what the future is going to be. It would be nice simply to say, we will sit and listen to either the politician tell us what the Monroe Doctrine is, or the TV commentator tell us what the Monroe Doctrine is, or we will simply, because today it's possible of doing this -- we will take our little radio shack, whatever, and dial up an information source and say, let's see what the Monroe Doctrine actually said. Because what will happen is, certainly those who are in school will say that. They no longer will be relegated simply by the textbook that is available in that school.

We have available today relational data bases, which then will say under Monroe Doctrine, see also other doctrines; see also, if you are this broad-minded, see

also the Brezhnev Doctrines, since that is what the TV commentators say we are confusing.

What the computer can reach out and do is far more information. And what the computer is forcing upon people, therefore, and what the information explosion is forcing upon people, is making intelligent choices.

What does all this mean then? Certainly, if I am in a business, I imagine, such as farming. Not having been a farmer I can't speak with a great deal of authority, but my understanding is that the way it can be used -certainly for record keeping. Certainly there is information available on market conditions, on futures, crop and livestock prices. I was reading the other day that there is a new system available today that lets you look at how many acres to plant of each crop, whether it's corn, or soy bean mix, what the proper relationship and ratio should be, and how you are going to earn more bucks if you do something some way, versus how much it is going to cost you doing something the other way. All of those are very practical considerations and to every business person they are the same kind of practical considerations, that the information explosion is forcing upon you and the computer is allowing to manipulate even more data to deal with it. In your sense, or in the sense of the farm economy, John Basket who is the publisher of a publication

ralled "Agricomp" I believe, said that micro computers are such a part of farming today they have become as important a revolution in farming as the tractor itself. Dr. Robert Cramer at the Kellogg Foundation has said that by 1990's, 75% of all commercial farms will be operating essentially using a computer based information and that 90% of all the county extension offices will be so equipped.

So from a very practical consideration, computers are with us, and the information explosion is with us, and we'll have to deal with it.

I'd like to say on a personal level, though, it is something that we will have to deal with, and if we deal with it properly, I think it will make us all better citizens, because we will not simply need the commentator to tell us what happened two, three, a hundred years ago. That's information we can call up on our own. That's information we can discuss in the family. Once we get tired of the video Star Trek games, maybe we'll start dialing up data bases and saying, you know, what has happened on this particular question? What is the research on this? What is the historical view on this? Which I think is going to make it, in a sense, from a civic standpoint, a critical part of our decision making path. And I happen to think that is a very good kind of

thing to think about. But I don't think computers are something to be afraid of, even if you were, you have to deal with them. Just as you would say, well, I'm a little afraid of the growing Hispanic group — that's a little too late because it is here and it's growing, and it's going to get bigger and we will have to deal with Spanish speaking people, who may choose not to be assimilated in the same way that other groups were.

But I think beyond that, simply having to do something, beyond simply having the practical uses that it can have in each of our daily lives, I'd like to believe and close with this thought, that it is something that can be personally very rewarding. It is something that is going to give us the kind of information to help us make prhaps the kind of decisions that will lead to a much better life for everyone in the year 2000.

Thank you.