

RECORD

THE ACTUARY AS A FUTURIST

An Address by
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Isn't the actuary a futurist--not by dedication, not by choice, but just by being an actuary? We have non-futurist economists; non-futurist sociologists; non-futurist lawyers, teachers, doctors, public servants, statisticians, and congressmen. But can there be a non-futurist actuary?

First, we have to understand the difference between shortsightedness and tunnel vision. That's not a bad title for a talk. "The difference between shortsightedness and tunnel vision." It tells the story. If you remember and understand the title, you understand and remember the talk.

Five years ago, Alvin Toffler wrote a book whose title--Future Shock--told the message. I wanted to write a title with as much impact. I approached a leading business education association with a talk called "Throw Out the Forecast, but Keep the Forecaster." This, I explained, meant that the process of forecasting is a marvelous learning experience which means more to a company than the piece of paper containing the product forecast. So, "Throw out the forecast, but keep the forecaster." "That's pretty good," they said, "We'll throw out the talk but keep the title."

Remember the words, shortsightedness and tunnel vision, and you will remember seventy percent of my message. Twenty percent more is in the words, ambiguity and creativity.

The futurist is, very simply, the executive who takes the future environment seriously. Most of us let the urgent affairs of today drive out the important affairs of tomorrow. By "environment" I mean the social, technological, economic, and political environment.

Until about seven years ago, most futurists thought they were fighting against shortsightedness only. We wanted people to look farther ahead--at the future of their own industries. This misconception existed even though James Bright of the Harvard Business School had warned us that more forecasts fail because of events intruding from outside the industry than for any other reason. A brilliant futurist with the Institute of Life Insurance, Edith Weiner, working with Arnold Brown, also of the Institute, recognized the need to look outside the industry when she set up the Institute's Trend Analysis Program. But, by and large, when futurists encouraged people to look farther ahead, they encouraged them to look farther ahead in the direction they were already looking.

If you review the events by which the business environment has invaded our companies during the last few years, you will see that they came as surprises because they invaded from parts of the environment we were not watching: The petroleum cutoff and the energy price increase; inflation with recession (which was supposed to be impossible); the fall of democratic governments around the

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world; and Watergate at home. Because we weren't looking in their directions, not only didn't we expect them, but we didn't see their connections to our business as soon as we might have.

We can only perceive what we are sensitized to. If we do not understand a problem, it is invisible to us. Michael Kami, the author of "Manual of Management Assumptions for Planning 1976 Business Strategy," went diving in \$400 worth of SCUBA equipment. He took an air tank and regulator, a face mask and fins, a rubber suit, a depth gauge, a compass, ten pounds of lead weights, an inflatable vest, and a little slate for underwater writing. At fifty feet, Mike encountered a skin diver in a \$5 face mask and \$10 flippers. This annoyed Mike, and he dived to 75 feet. The skin diver, with his \$15 worth of equipment moved on down. When they reached 100 feet, Mike jotted a note on the slate. "I have \$400 worth of equipment. Tank. Regulator. Face Mask. Fins. Wet suit. Ten pounds of weights on a belt. A depth gauge. A compass. An inflatable vest. And this little slate. We are 100 feet down, and you are sticking to me with your stinking \$15 worth of equipment. How come?" The skin diver wrote back, "That's because I'm drowning, you idiot."

Early warning signals of change may be social, technological, economic, or political. Although diverse, they have one thing in common. The really important ones do not jump up and hit us in the face. We have to be searching in their general direction.

I do not know anyone who received a letter in 1973 from Saudi Arabia saying: "Dear Automobile Owner: We will not be able to furnish you all the petroleum that you need to operate your automobile." Yet the effects of the petroleum boycott and price increases have pervaded our lives. They have even shaken our faith in government and our industrial society.

We have to search for the signals of change, but there are various reasons why we don't search. One is that the most important environmental events occur in parts of the environment which we are not used to watching, as the petroleum boycott occurred.

In June of 1973, I predicted the high likelihood of a petroleum cutoff--on the basis of an article in the April 1973 issue of Foreign Affairs. James E. Akins, our ambassador to Saudi Arabia, who was then assigned domestically in the State Department, pointed out that the world's dependence on Middle Eastern oil being what it was, any two of the large oil-producing countries could disrupt the European economy by suspending production. He pointed out also that Libya could cut off oil production for as long as four years while living off foreign currency reserves. The title of the article was "The Oil Crisis: This Time the Wolf is Here."

Ambassador Akins' article is characteristic of early warning signals: It was ambiguous. He didn't say it would happen, and didn't say it wouldn't. He laid out the facts, discussed the possibilities, and left the conclusions to the readership.

Now we come back to futurism, shortsightedness, and tunnel vision. The future isn't what it used to be. Ten years ago, we futurists worried about looking far ahead, using quantitative tools to tell our decision makers about the future shape of their individual industries. But now our industries are being invaded by events originating in other industries, indeed in other parts of the environment than we have been watching. Slowly it is dawning on us that we will do very well if we identify the broad areas that will most affect our businesses in

the future, and if we take appropriate action. The sharp details may elude us altogether.

To look ahead, to dispel shortsightedness, is not the whole of futurism. To explore new parts of the business environment, to dispel tunnel vision, is also futurism.

In this context, is the actuary a futurist?

With my colleague, Dr. W. Lynn Tanner, a social psychologist and philosopher, I have arrived at some tentative conclusions about the traits which cause tunnel vision. Dr. Tanner and I have developed methods to strip away tunnel vision. From our work, we are able to guess why actuaries might succeed or might fail as futurists.

This summer, I visited several insurance companies and asked about actuaries. What do they do? What do they know? What are they interested in? Actuaries, I discovered, are interested in the world. They are bright and they are broad. Actuaries are capable of intense mental effort. They are creative. They believe in thinking. These are good traits in futurists.

But actuaries are experts--bonafide experts. This scares me, because, as experts, actuaries may lack the ambiguity tolerance to forever scan the environment without wanting to fine-focus on every single event and trend. As experts, actuaries may favor precise answers about a narrow range of issues. What we expect from experts are answers.

What most people expect from a futurist is some way to avoid thinking about the future. They want a system for forecasting and planning which will give answers without any personal commitment of imagination, energy, and philosophical re-orientation.

Until Isaac Newton, the world was unable to understand the behavior of balls rolling, apples falling, and planets revolving in the heavens. It was all very complicated. Newton explained this complicatedness with three simple laws of motion. And, since the scientific revolution, practical men have believed that no matter how complicated the world may appear, there must really be simplicity behind the complexity. All we need is the next Isaac Newton, the next great expert to reveal the simplicity.

So if the business environment looks complicated, if it appears turbulent and ambiguous, don't invest your imagination and intellect in understanding the complexity. Don't change your methods of planning to account for our diminishing ability to forecast and plan. Don't extract psychological commitment from your organization to deal with the uncertainties lying ahead. Just keep hiring expert consultants until you find one who will assure you that the world really is simple.

Keep looking and you will find expert consultants who will assure you that there is no need to futurize the whole organization or any large part of it. By means of technique, by means of science, by means of expertise, you will be able to extract the answers you need about the future.

Now I say all of this ironically. The new futurism makes extraordinary demands on the organization that wants to dispel tunnel vision. In two words, the main problems are ambiguity and creativity, both of them uncongenial to experts.

I asked some engineers and managers of an international business machines company to give me a simple declaratory sentence stating a prevalent concept of the computer. They came up with a junior high school student's conception: The computer is a giant brain.

I asked them next to visit mentally the year 2020 for about ten minutes, then to take a ride back to the year 1974 in a time machine. During a quick visit to 1974, they were to examine the computer from the perspective of a citizen of 2020. They reported that there was an awful lot of unneeded information in computer data bases, information that no one knew how to dispose of.

Suddenly one executive leaped up and ran for the door. We never saw him again. But as he left, he stopped in the doorway, looked back, and remarked, "My God! What we need is not a giant brain. We need a giant kidney." I hope he is now working on giant kidneys.

What is the point? The executives were very unhappy with the ambiguity of my questions and instructions, and were alarmed to discover that the course of computer development and research could be influenced by flashes of insight. Their half-baked understanding of scientific management had conditioned them against living with ambiguity and creativity. They felt much more comfortable with cookbook methods, and, in fact, this is what they expected from a futurist. They didn't expect a futurist to stretch their imaginations and challenge their constructions of reality.

Here is our predicament, expressed metaphorically. Imagine that we are on a ship sailing north from the equator. The captain pretty quickly learns that he is on the open sea and he shoves the throttle wide open.

After several days, the ship grazes an iceberg and the captain wants to know what happened. We, the crew, explain that the ship has entered the Arctic Circle and there are objects floating around.

The ship is our economy, let's say. The iceberg is energy, or inflation with recession, or Watergate. The captain demands to know where the next iceberg is. He wants to steer around it.

But we, the crew, cannot answer his question, because only a few miles up ahead are not only icebergs but shrouds of fog. The icebergs are hidden in fog. We know they are there but we don't know exactly where. Our predicament is that the captain never expected the icebergs, let alone the fog. He is having enough trouble dealing with the idea that he can't run his ship straight ahead full throttle. We have to tell him that we will be doing really very well if we can avoid hitting icebergs at all.

We have to tell him to find a new way to run his ship. But we don't yet know what that new way is. At this juncture, he is likely to say, "The devil with you. Your job is not to lecture me on the need to learn a new way to run my ship. Your job is to give me answers. If you can't give me answers, I'll get myself new experts who can tell me where to point my ship."

As actuaries, you can play the expertise game and assure "the captain" that the future is rather precisely knowable and plannable through expertise, or you can figure out a new way to run his ship.

Stated simply, actuaries have themselves to work with and have their mystique of expertise. If you choose to become futurists, you may abuse both yourselves and

your expertise. Or you may turn yourselves and your expertise to good use.

If actuaries assume the mantle of experts on the future, you will foster dependency on the part of other professionals. You will let others assume that the future is in good hands--in expert hands. Others will stop exploring the business environment. Their perspectives will be lost to their industry. They will never become psychologically committed to change. They will never understand the philosophical subtleties of futurism--the need, for instance, to track certain trends, instead of forecasting them out of hand, and the need to defer decisions until the environment comes into focus.

On the other hand, actuaries may help to "de-expert the future." You may say, "As experts, we have to admit that there are no experts on predicting the future." The actuaries may work for psychological commitment to change and for professionals' participation in defining the shapes looming in the future environment. Here the actuaries offer their expertise and prestige to "de-expert the future." You offer your personal qualities, your intelligence, your breadth, your understanding of human and technical and business issues, your understanding of the subtleties of the environment and strategic response to the environment.

What must the actuaries do?

Actuaries must de-expert the future. You must reduce the expectation that a precise picture of the future may be obtained through expertise. But you must increase the sensitivity to ideas already blowing in the wind about future events and trends which will invade the business environment.

Finally, here is the challenge to the actuarial profession: Stripped of the mystique of expertise, you must face the future environment with bare intellect, curiosity, imagination, and breadth of outlook.

