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RESEARCH REPORTS & UPDATES

The Industry: Trends and Observations

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R E P O R T S

What I Have Learned About Studying the Future of the U.S. Food Industry Over the Past Twenty Years

by

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Introduction

The 1960s were turbulent times for many in the United States. Among other things, the current wave of interest in "futurism" was spawned. The author is proud to say that he had a small part in this movement. His efforts started with "Food Industry--2000 AD" in the late 1960s; moved through an incredibly broadening and deepening sabbatical year in Hawaii (1971-72); a series of papers looking at various aspects of food distribution in 2000 AD; a tussle with energy during the "crunches" of the 1970s; a look at food industry structure in the late 1970s; a

bout with social issues, national priorities, food industry policy and related topics in the mid-1980s; and finally an effort to untangle the "food industry systems" maze has occupied the last two or three years in the twenty-year segment of the author's experience.

The next section of this paper will discuss some major areas where we have learned about studying the future. The final segment will emphasize what we might do with this knowledge and experience obtained over the past twenty years. As the time horizons change, not unlike the yard markers in a football game, we gird

ourselves for the next "ten yards," the next twenty to fifty years along the path to an eventual goal--"A sustainable life on the planet, with adequate food for all our citizens, at peace with self and all."

Some Lessons Learned

The listing of lessons learned here is by no means exhaustive, is not in order of importance, and in most cases was not original with the author. However, there are places where the author may have stumbled across these lessons, in his ramblings, a bit before some of his colleagues. These will be duly noted.

1. We can study the future

Practical, meaningful study of the future, applicable to a given industry, is possible and even desirable. It can be directly related to long-range and short-range profit goals which industry representatives love to talk about, especially the latter. Such studies are neither easy, cheap, nor quickly done. But to ignore studies of the future because of interest in preserving the status quo or because of lack of data, lack of nerve, lack of foresight or imagination borders on the ultimate folly.

2. Assumptions and Variables

Using assumptions (statements of condition which will not change during a given future period) to "make the problem go away" or to mask the importance of a given set of conditions is one of the more serious errors a budding futurist can make. Realism is the key to proper use of assumptions.

Choosing the appropriate variables that will affect the situation being studied and deciding upon their proper quantification is where many future studies go bad. The "Futures Shaping Variables" which will drive change in a given set of circumstances are truly "worth their weight in gold" to the well trained futurist.

It is fair to say that the forces of technology have driven most of the changes of the 1970s and 1980s. However, to project those forces into the 21st century without recognizing of driving forces in societal structure or environmental situations will bring one to very erroneous conclusions regarding the fate of our next generation.

3. Time Frame

For the well trained futurist, identification of long-range trends and major forces affecting mankind--in this case, the ways that we feed ourselves--is relatively easy. The hard part comes in dealing with the short term, largely uncontrollable, people-oriented forces that are extremely hard to predict with any degree of accuracy. Also, there are the "discontinuities" that Drucker and others point out which surprise even the best of us from time to time.

Most of the time, the food industry takes too short-range a point of view in problem solving situations.

4. Myopia

Thinking too narrowly in terms of subject matter and thinking too small in terms of scope, depth and breadth of issues are other maladies that afflict many futurists. In the frantic effort to "narrow the problem" for easier solutions and timidity, many acceptable solutions are passed over or are never even considered. Breadth and depth of vision and willingness to shake narrow, traditional definitions are essential for successful "futuring."

5. History

History can help provide us with answers to the questions: Where have you been? Where are you now? and, most importantly, How did you get there? Identification of the conditions under which you were operating and the forces which drove you from points A to B to C are what is relevant about history. Endless projections of past trends into some imagined future are folly, because both conditions and driving forces change over time and not in equal proportions. Examples can be found from all segments of the food industry to show that, for some firms, their version of planning was to turn over another page in the history book. Some of these firms were lucky enough to ride successful trends for a long period of time. However, when changes occurred, these organizations were usually singularly unprepared, especially when such changes were rapid or discontinuous.

6. What Future Markets Need

In 1969, when I wrote "Food Industry--2000 AD," I made some assumptions about market needs, combined 1960 commodities into 2000 AD meals and then looked back at the impact upon 1960 institutions in the food industry. I am certain this was not the first time that an author

had looked at needs of markets at some future date and then worked back to the present identifying changes necessary to get the job done. However, these simple acts caused quite a fervor among my colleagues in industry and academia for some time during the early 1970s.

Currently, I am greatly amazed and saddened when I read articles that attempt to project the future of this or that specific technology. This activity is the ultimate folly. What is needed is to make as accurate a prediction of the market for the future period and see what technology is needed to fulfill specific needs. Should this be an extension of the existing technology, then plans can be made to adapt the existing technology to meet future needs. If other technology is needed then efforts should be made to develop it. *Technology serves the needs of people.* In this case those needs revolve around the delivery of food and food products to our citizens. The reverse of this situation is not true.

7. Imagination

Failures of imagination are another "plague" visited upon many of us. From my own experience, moving from the concept of commodities to meals in the 1960s, introducing the "Nutrient Delivery System" concept in the 1970s, and struggling with the "Total Food Industry Systems" concept in the mid-1980s have been the challenges of my life. It is extremely difficult to get people to move away from what they know for sure. Even to ask them to conceptualize something different (an admittedly difficult task for some) is like the proverbial "pulling of teeth."

In our ever more complex world, the need for imagination in seeking solutions to the myriad problems we face grows daily. The sadness is that the very system which we are trying to improve upon discourages our use of imagination. Routine begets more routine, begets more routine! Ad infinitum into oblivion.

8. Modeling

Early attempts to develop large-scale prediction models (Meadows and Meadows, et al., "Limits to Growth" and others) were halting, limited, much criticized but commendable. The main problem with these efforts was that most people took them too seriously as ultimate answers in this area. Instead, they (the models) should have been treated as halting first attempts to get a handle on some extremely complex situations. In their rush to find fault (myopia), critics largely missed the point of the exercises and

served to blunt much of the good which could have come from this work.

In my own case, with the total food industry systems work of the mid-1980s, I came face to face with the almost overwhelming problems of trying to conceptualize one specific system in one country. This says nothing about trying to convince others of the importance of such work, getting support for it and beginning to bring appropriate resources to bear upon the problem. Whether this phase of the work will happen before the start of the 21st century is indeed an open question.

One condition which darkens the horizon is the total lack of commitment to long-range planning and futuristic activity during the eight years of the Reagan administration. With the "more of the same" attitude put forth by the Bush administration, the time span could stretch to twelve years.

This is not to say that the United States government (some departments) has not developed some mechanisms for long-range planning over the past decade. Some have. The same goes for some states and local jurisdictions. What has been missing is (1) a commitment from the top administration that comprehensive, coordinated long-range planning and other futuristic activities are desirable and needed, (2) the provision of adequate resources to support such efforts on a continuing basis, and (3) use of the products of such an insight providing system in the decision making process of government at all levels.

9. Rates of Change

Toffler, with his *Future Shock* and other works, forced us to consider the almost "mind-boggling" rates of technological change in our society and parts of the world. Technology can change very rapidly, discontinuously, dramatically. It is also hard to predict and very difficult to control.

Institutional change, on the other hand, is slow (keyed to people's attitudes, beliefs and values) and relatively predictable under existing structures. Most institutions will stretch themselves to the *n*th degree to give the outside appearance of change while avoiding any really significant changes. In the early 1970s, I wrote a paper titled "Extension--2000 AD" which examined one of our venerable institutions and its approach to dealing with technological change.

Much of the potential benefit from rapidly changing technology has been blunted or at best stalled by the slowly changing institutions which

must accommodate the "new technology." Much of my writing of the late 1970s and early 1980s addressed the structure of institutions in the food industry and the linkages with the system. Emphasis has been upon changes needed in the institutions and upon ways to implement such changes.

A major portion of the problem has to do with the forces that have been driving changes in our society and the world over the 1970s and 1980s. Undeniably, technological change has been the major driving force. What has happened is that the difference between technological and institutional change rates has become so dramatic that the social and environmental institutions in our country have been stretched to the breaking point and beyond.

What is needed is a major reversal in driving forces from the technological to the social, economic, and environmental institutions. This does not mean that institutions are more important than technology. That is foolishness. Both are absolutely necessary. The point to be made is for one of proportion. Simply put, institutions must be allowed to "catch up" with the positive parts of technological changes and technology must "clean up its act" primarily in environmental areas. If we do not allow for this readjustment *at this point* in history, we run the risk of having the technological engine sour and not getting needed changes in our institutions. Should this happen, we lose on both counts. A proposed change of this magnitude will not come easily and may very well be precluded by upcoming economic problems (basically debt management or lack of same).

10. *The Generalist*

Undoubtedly, one of the driving forces in the 1970s and 1980s has been the specialist. This is another of those situations when an adjustment is required by the events of the times. In order to make effective use of our massive accumulation of specialist power, generalists are needed to deal with the enormously complex problems that we face. Proper management of our specialist resources in complex, rapidly changing times requires the specialist talents (if you will) of a generalist to match needs with problem solving skills and deal with the broader issues of our time.

11. *The Cutting Edge*

First of all, if you were ever fortunate enough to be on the cutting edge in any field, it is very difficult to stay there for any significant

length of time. This is especially true with the intense competition in most technological fields. It is also true on the institutional side, largely due to the immense pressure from the establishment to resist change. This does not mean that you lose your advance. You simply do not go anywhere.

Second, it takes a very special person to work on the "cutting edge." If you need a world of givens, familiar landmarks and constant reinforcement, this it is not for you. It is lonely out there! Either most people do not understand or do not want to understand what you are doing, or they do understand and are trying to borrow your ideas or are trying to stop you.

Third, there is a tendency while you are on the "cutting edge" to drive as far and as fast as you can. This may be good from the individual point of view, but may not be for society. Advances in nuclear weapons and nerve gas are classic examples. Again, some management of specialists is needed.

True, it's lonely out there. But there is also a thrill like no other.

What to Do About Some of These Lessons

Lessons one through five have to do with use or misuse of some of the "tools of the trade." It is simple to say, "use those tools properly." In reality a great deal of education and training is necessary for this to be able to happen.

Two more comments are appropriate here. First, academics and industry people have much to learn from each other in this area of "futuring." Industry can provide academics with real-world examples for their models and theories. Academics can provide perspective and a disinterested point of view for the industry. Second, top management in the food industry must become more future oriented. Someone must provide the vision, the direction and the impetus to move the food industry into the 21st century. To me, this is the most important part of top management's job.

Lesson six had to do with the approach to "futuring." We all have our point of view and our approach to problem solving. However, we in the food industry are serving human needs--providing food and food products for our citizens. To me, the most logical approach to "futuring" in the food industry is to try to identify the food needs of our future citizens, within the context of our perception of their life and times. Then we see what must be changed to accomplish these

tasks in the most efficient and economical manner and set about getting the job done.

Lesson seven focused upon imagination. This is a very tricky subject. Not all of us have or are familiar with the use of imagination. An open mind is the place to start, with liberal application of "empathy" and "creativity" in the process. This is one area that it may be possible for academics and industry people to help each other.

Lesson eight spoke to the issue of modeling. From the point of view of the food industry, the current total food industry systems work is a good place to focus. I recently completed, for the *Journal of Food Distribution Research*, a series of three articles where I conceptualized a total systems model and proposed a national coordinating group to oversee the work and to provide leadership and resources to complete the project. The void that appears is leadership. The federal government, which should have been involved in "futuring" business all along, has done nothing. Industry trade groups are cooperating on a series of joint specific short-range projects, which is quite commendable. The Food Distribution Research Society provides a forum for industry exchange, but has precious little resources. But there is no overall coordination of interested parties focusing upon the future food and food products needs of our citizens and developing the management information system necessary for future decision making. To repeat, *leadership is needed!*

Under *lesson nine* we talked about rates of change (technological versus institutional). The paramount issue here is "Who sets the agenda for the early part of the 21st century?" (The 1990s agenda is largely already set--at least for the early years of the decade.) Will it be technology (same as the 1970s and 1980s) or will it be social, economic and environmental interests (people interests)? *Please note:* Not all technology is bad (e.g., medicine and education). By the same token, not all people interests are good (special interest groups versus general interest). The point to be made here is that changes in people interests must catch up with changes in technology. The institutional structure within which technology must operate (legal, social, educational, economic, environmental) has a whole lot of "catching up" to do with even current technological advances. The plea here is for a matter of proportion in the interest of both groups.

The food industry is right in the middle of this controversy. Environmental and food safety concerns threaten to strangle portions of our food industry system. Nutritional questions bring under scrutiny a major portion of the dietary offerings to our citizens--especially our youth. Water quality and availability threatens the very foundation of our food production system. More technology, by itself, will not solve these and other problems that threaten our current food industry system. As we develop the 21st century food industry system, the above mentioned leadership proportions are needed desperately.

Summary

As a way of drawing this rambling discussion to a close, let us focus upon the question: How do we sustain interest in the future for a reasonable length of time? The answer is: it is very difficult because of the many short-range distractions that present themselves. However, if we can break the future down into manageable bits and relate these bits to real life, we can connect these bits in some meaningful sequences to bring forth our overall plan for the future. To repeat, this presupposes a significant commitment to the future and to planning efforts in changes in our citizens' best interests (food in this case). It also is predicated upon effective leadership and follow-through as we move forward into the 21st-century food industry system.

