mazer and the lazer, nuclear fission and nuclear fusion were not even words a half-century ago. They began to be words a quarter of a century ago.

I submit that we are beginning to witness the same kind of clustering of fundamental technology as that which resulted in what has come to be known as the first industrial revolution, and that we are probably in the early stages of the second industrial revolution, which may make the first look pale by comparison.

There are some five conspicuous expressions of these fundamental technological changes. I will mention them briefly and then I will go over to some of the implications that they have for management.

One is the shift in the nature of the prime mover. Some 35 years ago a book was written, called "Techniques and Civilization," by Lewis Mumford. The thesis of the book was that every epoch in the history of man was ultimately and fundamentally conditioned by the nature of the prime mover, its ready availability, its cost in terms of human effort, and the characteristics of the energy source. Even in recent years we have seen the shift from coal to liquid hydrocarbons and gaseous hydrocarbons which today are contributing 75 percent of the total energy market. When I was a petroleum economist 20 years ago for the Jersey Oil Company, I think it was only 60 percent. This has been a rapid, rapid change and a depletion of resources. And now we are beginning to see nuclear power come into the range of competitive realization. The figures that have been developed for the Jersey Central Power and Light plant, in Oyster Creek, I think it is, are beginning to look very competitive with coal-fired furnace electric power.

It is just a matter of time, I submit, and a much shorter period of time than we thought just a few years ago, when the abundance of energy at reasonable and comparatively cheap prices will become available through nuclear fission. Just when we will get fusion power in volume, some of you engineers can tell me rather than my attempting to tell you.

That is one of the five conspicuous expressions of this changing underlying technology.

Another is the extraordinary shift that is occurring in the nature of industrial products. No longer are we dependent upon raw materials