
The Expert's Opinion

Dr. Jan Meyer is an associate professor at the College of St. Thomas, St. Paul, Minnesota. Previously she served as manager of human resources at United Airlines, where she was employed for almost 18 years.

Interview conducted by Karen Mowery

IRMJ: How did you come to focus on information technology in your work with organizational behavior and international management?

Meyer: My experience with management development consulting brings me in contact with many different people. Through those contacts, I began to realize the extensive impact of information technology on the nature of a company's organization, how it experiences and deals with change, and so on.

My first intuitive response was: We're going to have to change the way that we teach organizational behavior and change. I realized too that the way I consult with companies on managing change would be impacted and that the way we structure organizations would have to change. And so, I became very interested in the human side of information technology and the challenges it creates.

IRMJ: What have you found to be the most compelling human issues?

Meyer: My first research project in the area was to look at the issues of managing with information technologies in the future. I particularly looked at it from the general management per-

spective. What I discovered was that there seemed to be two distinctly different lists of issues for the future, depending on whether we were talking with technically-focussed MIS professionals or general managers. They are poles apart. I'd like to see more interface.

The second serendipitous outcome of that research, which keeps expanding, has been that at first our findings seemed to indicate that perception of computers varied by culture. For instance, I found three possible perceptions of computers and information technology: people can view the computer as superhuman or god-like and they attribute god-like characteristics to the computer—we call that beatification; or they can view it as a person and assign it human-like characteristics like happiness, anger, and so forth—we call that personification; or they simply see it as a piece of furniture, an object that helps do the job more efficiently. In the first analysis, there appeared to be a distinct difference from culture to culture. Americans as a culture are very machine-oriented. We will use any machine that helps us to do things faster and better. Look around our homes, they are filled with gadgets. We also love to count things and we count things easier with machines. So it is not surprising to find that Americans view the computer as an object and don't give it a personality. Sometimes we do it in fun, but we are not really serious about it. Even when we joke, we refer to it as "it," we don't say "he" or "she" when we reference it. I found that 24-38% of people in other cultures, however, view it from one of the other two perspectives. This was very distinct in the first analysis, but we later realized that we needed to correlate perception not just with culture, but with experience. In continuing that line of study we have found there really is a difference between cultures but it is not as large

as we initially believed. But there are large differences in perception between levels of experience. One of the clues that led us in that direction was our realization that age played a major part in the formation of American attitudes. Younger Americans viewed the computer less as an object and more as a person or a god. Of course, things are changing rapidly in education, and you can see that with the exposure children are now getting as early as third and fourth grade. They will probably skip altogether the beatification and personification phases.

IRMJ: What implications do your findings have for the organizations of the 90's?

Meyer: The important part of this research is that it changes implementation strategy. If you are implementing information technology in a workforce where the workers have little or no experience with computers and they may be at the beatification stage, you use a different implementation strategy than if you are going into a workforce already knowledgeable about computers and less likely to fear them.

Also important is our recognition that any time you either add or enhance MIS, you have implemented some kind of change. For instance, it is going to change the way people do their work, the way the organization is structured, or any of a number of other possibilities. There is nothing humans fear more than change. We know now that anytime an organization undergoes changes we are going to have conflict and problems. Just knowing this makes it obvious that we must pay closer attention to any implementation or enhancement of information technology.

A third area of impact is organizational structure. Information technology allows more information to be available at more levels in every organization. This means the role of management is no longer that of gatekeeper or informa-

tion provider. Managers don't have control over all that information anymore and this realization has a profound effect on them. On a personal level it scares them. The boundaries are no longer clearly defined as they used to be. They don't always know what to do—they are getting more information about more topics, and they are having to respond more quickly; so, they've got to be more knowledgeable about what they do with information. I don't think we've really addressed that issue at all in our culture. Frequently the ability to analyze, and the time allowed to do it in, is practically zero. That is something we come up with from the general management side that has to be addressed by the information technology side: how to get management less data in terms of quantity while improving the synthesis and quality of the data that is provided. Data by itself is not useful, it is necessary to know what to do with it.

All of this takes its toll on the traditional organization. The hierarchical organization chart doesn't work in an information rich environment. We are having to work toward flatter structures with few levels and fewer formal lines of authority. Here again, that's a scary thing for the boss who likes everything clearly laid out in terms of boundaries.

IRMJ: I guess you have a diffusion of responsibility that goes hand in hand with that scenario. Who is responsible when something goes wrong, or right for that matter, the manager who is working with the information, or the person who provided the information?

Meyer: Yes, that's a good point. Basically what I see for the future is a more lattice-type of organization with no clearly delineated top or bottom, a more interwoven kind of responsibility. They call it lattice because it looks like a lattice fence—things weave in and out in both directions. I also think there is a beautiful marriage between information technology and

the “hot button” in the popular business press right now, which is the difference between “managing” and “leading.” If you are in an information rich environment, you can no longer manage in the old way, you have to be more of a leader. There will be less hands-on managing and more leading—making sure people have what they need to do their jobs well. That, of course, creates another change, which creates conflict as well.

IRMJ: How does the speed of change in information technology make an impact? A corporation may implement something and then have to upgrade two years down the road.

Meyer: It's less than two years, now. The single thing we can say about change in today's world is that the only constant we have is change. One of the most important skills we can teach management students is how to deal with change, or what I call tolerance for ambiguity. In fact, we find our course called *Power and Authority* is one of the most profound experiences students undergo in a classroom mainly because they have to learn their reaction to ambiguity and they never forget that. They may not get any better at it, but at least they recognize the symptoms when they occur and know when they are reacting to ambiguity rather than something else. That in itself makes them better able to manage. And certainly information technology has created a great deal of ambiguity. It hasn't provided any easy answers, it has just opened more questions, which is great, it's progress.

IRMJ: There does seem to be a trend away from too technical a focus to a more generalized approach. Are organizations specifically looking for employees who can think first and apply technical skills second? Do you see that as part of this whole scenario and do you view it as a positive trend?

Meyer: Yes, absolutely the trend exists and it is a good one. It is much easier to teach a liberal arts major the technical skills than it is to teach a technical major the people skills, the communications skills, and the openness. If you've been trained for four years in a highly-technical environment, you have been given a lot of black-and-white, and that is very hard to undo. We exchange ideas in the hope that we'll come up with a better one in the future out of being exposed to other viewpoints. I think that is exactly what we are talking about with regard to the emphasis of education. You teach openness to ideas through a liberal arts education and then you give them the ability to understand the tools that must be standardized with the technical training. And there's a difference between education and training, a clear difference. I think students need the education first, otherwise they are much more resistant to change. Even at the lowest level jobs, employees must work as part of a team. That requires people and communication skills. At the University of Minnesota, technical students both in IT and Computer Services are being required to take small group communication and interpersonal communications classes because the school found it was putting out technical people who couldn't talk to each other and didn't know how to work in a team environment. And teamwork is critical for the future.

IRMJ: So you have hope that this communication gap can be bridged in the future?

Meyer: There is so much to be done, and I think finally it is being recognized by both sides. There is a meeting point, where general management doesn't have to be afraid of the technologists, and the technologists can learn to talk in general management terms. We need more openness on all sides and more willingness to ask questions. To do that we have to develop communities where there is no negative sanction for asking questions. □

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