## Complementary Assets: Organizational Capital and the Right Business Model

Once technology was considered “too technical” for the rest of us to understand. Computers were relegated to the back room with a few technicians running around in white coats. No one else understood what these people did or how they did it. It was a whole different world and actually seemed disconnected from the mainstream operations of the company.

Technology and its associated information systems are now integrated throughout the organization. Everyone is concerned about its role and impact on their work activities. End users take on greater responsibility for the success of the information systems and are actually doing a lot of the work that belonged to the techies. Even the executive levels of an organization can no longer ignore the technology as they realize the importance of managing their **organizational and management capital**.

As a firm becomes more digital, its information system continues to extend beyond the traditional role of serving the employees. Developing the **complementary assets** associated with the information systems such as developing new business models and processes, changing management behavior and organizational culture, emphasizing employee training in technology, and creating new partnerships with suppliers, customers, and even competitors, is proving to be a daunting task.

But the plain fact is that organizations, especially larger ones, just can’t change as fast as the technology. Companies make huge investments not just in hardware, but in software and persware. Training people, building new operating procedures around technology, and changing work processes take far longer than the technological pace will allow.

**Bottom Line: Information literacy is more than just clicking a mouse, pounding the computer keyboard, or surfing the Web. It’s about integrating the various elements of an organization, technical and nontechnical, into a successful enterprise. As a successful manager you must concentrate on all three parts of the information systems triangle (hardware, software, and persware) and integrate them into a single, cohesive system that serves the needs of the organization, the wants of the customer, and the desires of the employees. The more complex the system, the harder to manage, but the greater the payoff. Complementary assets are comprised from organization, managerial, and social assets of a firm.**

# 1.3 Contemporary Approaches to Information Systems

The study of information systems deals with issues and insights contributed from technical and behavioral disciplines. The disciplines that contribute to the technical approach are computer science, management science, and operations research. The disciplines contributing to the behavioral approach are psychology, sociology, and economics.

## Technical Approach

Think of this analogy: A “techie” looks at most things associated with computing as a series of zeroes or ones. After all, everything in a computer is ultimately reduced to a zero or a one. So using the technical approach, you could say that 2 + 2 = 4.

## Behavioral Approach

The behavioral approach, on the other hand, takes into account the very nature of human beings. Nothing is totally black and white. Therefore the behavioral approach to the same equation would be “2 + 2 = maybe 4 or perhaps 3.5 to 5.5, but we’ll have to put it before the committee and see what the last quarter’s figures say.” Neither approach is better than the other, depending on the situation. Neither approach is more right than the other, depending on the situation.

## Approach of This Text: Sociotechnical Systems

An organization can’t afford to view its information resources as belonging to either the techies (technical approach) or the non-techies (behavioral approach). Responsibility for information belongs to everyone in the organization. This is the **sociotechnical** approach — a combination of the two approaches. Everyone has to work together to ensure that information systems serve the entire organization.

To help you understand the importance of viewing management information systems using the sociotechnical approach, consider this: David Haskin, writing in the April 1999 issue of *Windows* Magazine, quotes Steve Roberts, vice president of information technology for Mind Spring Enterprises, an Atlanta-based Internet service provider: “The gap in understanding between technical and nontechnical people is the biggest challenge I’ve seen.” Haskin goes on to say, “Because technology is the bedrock on which successful businesses are built, the stakes in making this relationship work are high. Failing to use the correct technology can put you at a competitive disadvantage, and glitches in existing technologies can bring a business to a grinding halt.”

Even though Roberts made his statement over ten years ago, his insight into the challenges of managing information systems hasn’t changed much.

**Bottom Line: Information systems and the use of technology belong to *everyone* in an organization. This concept is best carried out through a sociotechnical approach to viewing information systems, which allows both the technical and behavioral approaches to be combined for the good of the organization**