

## CHAPTER ONE

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# Why *Technology Best Practices*?

### HOW TO MANAGE THE TECHNOLOGY?

To manage technology, it is necessary to coordinate people, hardware, and software resources. “You can do *anything* with technology if you are willing to spend enough money and time.” This statement is not a fantasy and contains a large amount of truth. However, it is important to carefully select, successfully implement, and continuously manage technology to accomplish business goals. So many organizations spend money on technology and do not reap the results because of poor implementation, lack of training, or incorrect selection. It is appalling when technology is implemented for technology’s sake. This book can serve as a guide for an organization’s decision-making process on technology.

Technical skills are not a prerequisite for managing technology. The desire to ask questions, manage projects, and look at possibilities is a large part of the battle. The *how* of managing technology will be a cooperative effort between a technology steering committee, internal information technology (IT) staff, and contractors who provide installation and support services. A mix of in-house and out-of-house support based on size, response time needs, complexity, and other factors is needed. The *how* of managing technology will be explained with planning, policies, and procedures.

### WHO SHOULD MANAGE THE TECHNOLOGY?

The information technology steering committee (ITSC) should manage the organization’s technology. Information technology was traditionally managed by a professional data processing staff that managed the centralized mainframe or minicomputer, and provided all of the organization’s core IT functions. This is still a reasonable approach for larger organizations, but a balance of people that support core processing as well as productivity work is needed. Regardless of size, the organization must have a strategy to provide help and recovery in the event of failure, and backup on a daily basis. In a small organization, the one person who is considered *computer literate* will often handle all

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IT tasks. Organizations of all sizes should have a plan to accomplish the IT items that make sense for the business strategy.

The IT Steering Committee should recommend the strategy of the organization, and the IT manager should execute the projects selected by the IT Steering Committee. The organization, function, and responsibilities of this group are covered later in the book. *Computer gurus* in small organizations can have a small group recommend projects, but will probably manage most of the implementations themselves. It is rare to recommend that an IT or management information systems (MIS) manager control the IT decisions for an organization, although most are quite competent and capable of doing so. The process of discussing IT needs is a way to discover new technologies that can help the business educate, gain agreement, and monitor implementations. If IT makes the decisions unaided, all of the issues, solutions, and needs of the users may not be considered.

The *who* that accomplishes these tasks will have a major influence on the success or failure of the business. Several studies have pointed out that technology automation will make the typical office worker 25 percent more productive and effective. When considering that four people can do the work of five with automation, it should be easy to justify technology expenditures for these gains.

### WHAT SHOULD BE MANAGED?

All aspects of technology! This may sound like an exaggeration, but every single aspect of technology in the business, from the copiers to the phone systems to the computers to the software to the training, should be considered. If a business process has any element of technology involved, it should be considered and reviewed on a regular basis. New, better, and potentially less expensive or revolutionary methods should also be considered.

Politics in the organization may be one of the bigger stumbling blocks to comprehensively managing technology. Because of some historical decision, copiers may be under one person's control, while phone systems are the responsibility of someone else and an MIS department may manage IT. However, as shown in the chapters on communications, the organization may be better served by consolidated voice and data over the same lines. From a technology perspective, it is always better to coordinate all aspects of the technology used in a business. In large businesses, it can be very challenging to get your arms around all of the items to be considered. It becomes even more challenging without a technology background and people who are explaining things in *geek speak*. Have the discipline to ask for a simpler explanation, if needed. Use an old management technique of asking questions. With technical people, it is helpful to ask the same question at least three times in different forms to make sure that you understand the answer. Another management technique that works well with technical people is to ask one more question *after* you think you understand everything. This extra question routinely unveils the true issues or complications, and clearly helps your understanding.

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Walking into someone else's political territory can, at times, be career limiting. But managing technology correctly is so critical that it is important to be a leader and take the risk.

### WHEN SHOULD TECHNOLOGY BE MANAGED?

Continuously! Each project deserves daily or weekly management. The minimum management that makes sense is an annual review. Quarterly or monthly reviews makes even better sense. The technology review does not need to take a lot of time, but it should include a status update on all open projects, any significant issues, and any new technologies that should be considered.

Most new technology functions added to business can be accomplished in a few weeks to a few months. If the project can be clearly defined, it is a candidate for being outsourced. A project that is outsourced will have to be managed more carefully than one using in-house IT staff.

Other chapters in this book will explain procedures that should be developed and followed every day, week, month, quarter, and year. Some tasks will take a minimal amount of time, and others will require a day or more to complete. However, if the technology is not managed, the outages will cost your organization far more than the time invested to manage the resources properly.

### WHY MANAGE TECHNOLOGY?

It is less expensive to manage technology implementations than to leave these resources alone. In an earlier book, the five-component model of computing, originally developed by Dr. David Kroenke, was discussed. This approach to computing explains how all computing systems have five basic components: hardware, software, data, procedures, and people. If any one of the five components fails, the systems will not function properly and not produce the desired results. The five-component model is one approach to managing all of the computing resources. When considering making a change, it is reasonable to ask how the change will affect each one of the five components. For example, there may be a need for a faster, larger capacity tape backup system. If the tape system is upgraded, how does it affect the hardware (probably need to be replaced)? How does the upgrade affect the software (possibly requires an upgrade)? How does the new backup system affect the data (possibly makes old backups inaccessible)? How does an upgrade affect the procedures (perhaps it eliminates some tape rotations, changes or start times)? How does the change in the tape system affect the people (new training, different procedures, down time)? Using the five-component model as a framework to ask questions can answer many of the *whys* of technology.

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Everywhere it is used. It goes without saying that technology is becoming more portable and geographically dispersed. These issues alone point out some of the items that need to be managed. For example, what happens if a mobile user's portable computer is stolen? How confidential is the data? How do we get this user productive again as quickly as possible? If this is the third time this year a computer has been stolen from this user, this is a chronic problem.

Communications technologies also change the *where* of computing by allowing Internet Access worldwide, remote access, wireless access, wide area network access, and other options that will be discussed in later chapters. But the key point (or question) for now is: what are the hardware, software, data, procedural, and people factors to be considered when managing the location of technology use? Many companies begin using personal digital assistants to later find that their most valuable company asset, the client database, is loaded on a non-secure handheld device. Other companies implement wireless without turning on the security options, and then realize that hackers can drive by in cars and get access to their local area network and private company information. The technology manager's job is to think about and prevent these situations before they occur.

### INSIGHTS AND ADMONITIONS

Technology is such a broad field that there are many opinions on how to accomplish similar tasks. The recommendations for technology best practices reflect what are considered to be the best methods available right now, but there can be dozens of correct ways to do anything recommended. The procedures described and the policies recommended are the best insight currently available.

Since business conditions, legal requirements, and the technology being used will change over time, the supplemental web site for this book *www.technologybestpractices.com* is a source of updated supplemental material. The intent is to always make the best decisions for business, using the best technology available, complying with regulations that result in the best customer service you can provide, augmented by technology. If anything in this material conflicts with that view, be assured that it was not written clearly; new technology has made an old methodology obsolete; or business requirements have changed.

### FRAMEWORK OF THE BOOK

The book is divided into two major halves. The first half of the book is focused on technology and contingency planning, policies, procedures, and managing IT resources and people. The second half of the text is focused on understanding the basic components

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of technology including software of all kinds, hardware, communications including local area networking, wide area networking, remote access, Internet, and telecommunications. Finally, the book closes with discussions of future technologies to watch. Visit the web site *www.technologybestpractices.com* often to see a current list of recommendations by product category, including pricing.

### CONCLUSION

This book is intended to give the reader collective insights from observing and helping companies implement technology, using the best practices available. There are many right ways to implement technology, and there are many wrong ways. Hopefully, this book will provide answers to many of the intriguing issues that that come up while considering the technology to implement for an organization.

