E-LEARNING

Strategies for Delivering Knowledge in the Digital Age

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McGraw-Hill

New York  San Francisco  Washington, D.C.  Auckland  Bogotá
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To Harlene and Brian
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Supporting Materials, Resources, and Links at
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The world of e-learning is constantly changing and evolving. To help keep this book on the cutting edge, I’ve created a Web site where you’ll find:

- New and updated links to sites that are good examples of all forms of e-learning and sites that provide additional information on e-learning strategy
- Information on new e-learning resources (books, articles, newsletters, and conferences)
- E-Learning FAQs
- Selections from the book
- Tools to help you apply concepts from the book
- Opportunities to provide feedback to me

You can access this Web site at

[www.books.mcgraw-hill.com/training/rosenberg](http://www.books.mcgraw-hill.com/training/rosenberg)
“Busted,” Sharon said, “they took my picture running a red light on Harbor Drive. Now I have to go to traffic school, plus pay $301 in fines. Fortunately for me, by taking a class on the Web, I can take care of this mess from home.”

Alfonso, too, was confident: “We’re going online to shift our global workforce to several new software packages. This is great because I was having trouble finding an instructor for the Ukraine and Belarus.”

My mother was not to be left out: “I’m learning new knitting patterns for afghans on the computer.”

New York Times columnist Thomas Friedman quoted Cisco’s John Chambers: “The next big killer application for the Internet is going to be education. Education over the Internet is going to be so big it is going to make e-mail usage look like a rounding error in terms of the Internet capacity it will consume.”

Sharon is a therapist. Alfonso is a training manager. My mother is an 80-year-old retired social worker. And John Chambers is CEO of one of the world’s premier technology companies. What do they have in common? They and many, many others are drooling over e-learning.

There are good reasons for their unbridled enthusiasm. First, there is the promise of access that extends to my little old mother, 50-year-old pal, and a Ukrainian petrochemical engineer. The Web enables update, information, learning experiences, and collaboration wherever, whenever, and in the nick of time. Executives, often perceived as missing-in-action when it came to education and training, are now increasingly riveted by learning and knowledge online. The Web brings human capital front and center, where I think it belongs.
Marc Rosenberg thinks so, too. In this book he presents a rich discussion about e-learning, linked to strategic results, and capturing the concerns and priorities of individuals and executives.

Rosenberg understands the lone saleswoman who perceives the Web more as a library than a classroom, and turns to it because it’s chock full of resources for selling. With just a few keystrokes she examines colleagues’ presentations, fact sheets, product updates, and proposals, edits related documents, and repurposes them for her customers. Pressed for time, and selling in northern Canada in the dark of winter, she joins her company’s global sales community for online chats, or reaches out beyond it to others who also want to get smarter about telecommunications products and services.

Rosenberg writes a book that executives, too, will want to read. There are rich examples from US WEST, Merrill Lynch, and the Prudential, descriptions of what learning dotcoms are up to, and many anecdotes and experiences shared by fellow leaders. Lessons learned are often presented as meaty and manageable lists; for example, 13 reasons why the training department is dragging its heels on e-learning, and 6 questions to ponder when ratcheting up online learning to a meaningful and systemic architecture.

Here Rosenberg pushes beyond a classroom metaphor for e-learning and into knowledge management, and performance and decision support. This bigger tent definition for e-learning capitalizes on the technology and parallels what people really need.

But Rosenberg does not drool over e-learning. He admits to the gnarly issues and tackles them here. This book acknowledges the challenges of doing the technologically and strategically new. He does not gloss over the difficulties of working across conventional boundaries, effort that is typically a part of successful e-learning and knowledge management. Through balanced discussions about prior technology disappointments, juicy programs, dicey relationships, and guidelines for proposals and negotiations, Rosenberg provides both broad guidance and nitty-gritty tools.

For e-learning to realize its promise, much harder things than XML and screen design are involved. Success depends on strategy, sponsorship, and execution, all described here in tangible and authoritative ways. Calling for the “Four C’s of Success: Culture, Champions, Communication, and Change,” Rosenberg’s is a
sober voice regarding transforming Web promises to workplace performance through concerted organizational effort.

The hope that surrounds e-learning is with us today. Soon, while the Web will endure and evolve, the excitement about e-learning as the next great killer application is likely to fade. Now is the time to move forward to do the hard things that must be done to convert wondrous possibilities to dependable realities.

This is where Rosenberg’s book comes in. While the book offers much that encourages enthusiasm for e-learning, it offers even more to the irreverent individual who smells the hype and vows to do better.

A young woman considering graduate school at San Diego State University recently said something like this: “Sure I know a little about the Web and online learning. But I won’t be graduating until 2003 or even 2004. I mean, what’s next after learning on the Web?” Must e-learning soon move from the In list to the Out? Is Wall Street’s wobbly reaction to learning dotcoms a harbinger of the future?

Whether it is the Web or the next new, new thing, Rosenberg’s message remains anticipation, connection, engagement, culture, collaboration, and systems. This message is In now, true today as it was for instructor-led training a while back. And it most certainly will be In tomorrow, as learning and knowledge attract fresh consideration through the engaging power of the Web.

Allison Rossett
Preface

“The biggest growth in the Internet, and the area that will prove to be one of the biggest agents of change, will be in e-learning.”

John Chambers, CEO, Cisco Systems

“In my lifetime, I’ve never seen hype and understatement walk hand in hand. But that’s what we’re seeing now. I’m convinced that our great-grandchildren will look back and wonder why we didn’t get it.”

Nicholas Negroponte, Director, MIT Media Lab

Computers are an integral part of our lives. But how instrumental have computers been for learning? I often ask people how long they think that computer-based training (CBT) has been around. Five years? Ten? Fifteen years? Most people believe that CBT is a recent educational innovation. In fact, it’s been around well over thirty years.
I remember my first professor of educational technology, Dr. Phillips. It was 1973 and I had just begun my master’s program in the field and was fascinated with what Dr. Phillips was doing. Sitting at a Teletype terminal hooked to a mainframe, he was responding to multiple-choice questions generated by a computer program he’d written. Literally hundreds of keypunched cards stacked just right generated several simple questions, and even simpler responses. Correct, Incorrect, or Try Again was all the system could muster. As rudimentary as it seems now, back then it was a breakthrough, a significant new application of the pioneering “teaching machines” work that educators and psychologists were experimenting with in the fifties and sixties. Dr. Phillips would remind us over and over that it wouldn’t be too long before everyone was learning from the computer.

Fast-forward to today. The technology is more sophisticated. Yet as late as 1998 most organizations reported only about 14 percent of their education programs were technology-based. Why has such a promising innovation been so difficult to deploy? Why was Dr. Phillips’s prediction so off the mark?

As innovations go, many people consider technology-based learning disappointing at best. A field of great promise has had such a relatively minimal impact. After thirty-plus years of experimentation and trials, isn’t it reasonable to expect more progress? Are we destined to continue down a mediocre path, or are we on the verge of a real shift in how we view, build, and deliver superior, highly cost-effective learning and performance?

Why This Book . . . and Why Now?

We are on the verge of a major sea change in learning. Internet technologies have fundamentally altered the technological and economic landscapes so radically that it is now possible to make quantum leaps in the use of technology for learning. Yet there is also a danger. If we focus too much on the technology itself and not enough on how well it is used, we will continue to fall short. But if we neglect the power of the Internet, we will never get off the ground. In the end, successful Internet-enabled learning, or “e-learning,” depends on building a strategy that optimizes the
technology within an organizational culture that is ready and willing to use it. But, as we will see, it’s not just a technical innovation that drives us to e-learning. Businesses need to get information—even information that’s changing—to large numbers of people faster than ever. They need to lower the overall costs of creating a workforce that performs faster and better than the competition, and they need to do this 24 hours a day, seven days a week for people located around the world.

The question is no longer whether organizations will implement online learning, but whether they will do it well. Having the right technology and delivering good learning programs using that technology is essential but insufficient. An effective e-learning strategy must be more than the technology itself or the content it carries. It must also focus on critical success factors that include building a learning culture, marshaling true leadership support, deploying a nurturing business model, and sustaining the change throughout the organization. It must be pursued by people who are highly skilled and capable of executing effectively. And, it must move us to a view of learning that is much more than formal instruction or training—to one that sees learning in a much broader, organizational context—as in the growing of the intellectual capital of the firm, and the enabling of higher individual and organizational performance. Finally, it must be a strategy that can be developed, tested, and deployed at “Internet speed.” For managers in the training business, this is a “do or die” issue. For managers running the business, it is do or die as well—as speedy, cost-effective performance improvement will be a key to winning in the marketplace.

Most organizations, including training organizations, don’t have an effective, broad-based e-learning strategy. They have Web sites, courseware, and other artifacts of online learning. But without the strategic thread that holds it all together, based on “why do it,” not just on “how to do it,” most programs have been minimally impactful and/or short-lived at best. This book focuses on building such a strategy, and in doing so, provides a road map for growing and sustaining an e-learning culture. It is based on 20 years of observations, best practices (and worst practices), and conversations with numerous leaders in the fields of learning and learning technology.
There are six fundamental beliefs that I consider a foundation for the direction I’m taking. Keep these in mind as you move through the rest of this book:

1. *Internet technology is the key to a profound revolution in learning.* But technology—any technology—is a *tool*, not a strategy. Being proficient in the use of a word processor does not guarantee that you’ll write the next best-seller. Likewise, the Internet cannot, in and of itself, improve the quality of the learning you put on it.

2. *There is an enduring and important role for traditional classroom instruction.* People who believe technology will totally replace great teachers in front of classrooms of highly motivated learners are as misguided as those who believe the Internet is a passing fad.

3. *Learning is a continuous, cultural process—not simply a series of events.* It values and transcends the classroom and the workplace. Access and opportunities to learn should be available to anyone, anywhere, and at any time. Organizational learning is as much about what happens outside formal learning programs as it is about the programs themselves.

4. *The broad field of learning encompasses more than education and training.* It is a genuine *discipline*, complete with a discernible body of knowledge, founded on systematic inquiry and empirical research that can be mastered through formal education and broad-based experience. Learning and e-learning professionals are not made overnight.

5. *You do not necessarily have to be in the education or training business to create opportunities for e-learning.* Further, it is important not to confuse learning (something we all do) with instruction (something that presumably supports learning). People learn all the time—you couldn’t stop it if you wanted to. There are many public Web sites that are not instructional in nature yet provide information from which people can learn.

6. *Strategy development and implementation are never really finished.* You change it as your business changes. You adjust it as your people become more skilled. You redefine it as new
This book is for anyone—trainers, executives, consultants, and students who see the promise that Internet and related technologies will bring to the field of learning and performance and who want to be sure that when they implement their e-learning strategy, they’ll do so in ways that will invite success. We are rapidly becoming very comfortable with computer and Internet technology and there is no question that in time a new generation of workers will expect to learn via this technology. But of course, waiting for a generational turnover is not an option.

The time is now to build an e-learning strategy that meets the needs of today’s workers, some of whom are ready for this change, and others who will need help in the transition. And now is the time to build an even greater capability to deliver on this strategy for an increasingly computer-savvy workforce. At the very time businesses’ need for learning and knowledge has outstripped what’s possible using conventional training methods, e-learning will allow us to respond more effectively. E-Learning has never been so important, and our opportunities have never been greater.

A Strategic Focus

Too often we are so enamored with the opportunities that technology offers that we neglect the climate in which it will be implemented. And so the purpose of this book: to recognize that in order to leverage the potential of e-learning technology for sustained, beneficial change, a sound business and people-centered strategy is essential. The successful deployment of e-learning is absolutely dependent on understanding this important premise.

The focus of this book is about the Internet, for e-learning is a Web-enabled strategy. Certainly other technology delivery systems, such as CD-ROMs, have a role to play, but because they lack the
inter-networkability that is fast becoming an essential element for e-learning, these non-Web technologies will play a subordinate role.

This is a book about strategy—e-learning strategy in particular. There can be no successful learning initiative without it. But strategy without a tactical framework and execution rings hollow. So we will also explore many of the key operational decisions that must be made for the strategy to be both successful and durable.

This is not a tactical “how to design Web-based training” book, although it does talk a lot about what quality Web-based learning is. It is not about authoring or programming, or which tools are better than others, and it does not go into the intricacies of user interface design or navigation. It does not provide deep insights into Java or HTML, nor does it deal with graphic packages, JPEG, MPEG, streaming video, or other production issues. There are many fine resources that deal with design, technology, and tools (see Appendix B). This book is also not about specific vendors and vendor products that are in the marketplace. The speed at which these products and their underlying technologies are changing would make this book obsolete before it is printed. While some vendors are mentioned, and URLs provided as examples or case studies, recommendations of specific companies and products will be avoided; to do otherwise would again make the book obsolete almost immediately. It would also compromise an important cornerstone of this book—its product- and vendor-neutral nature.

This book is a companion to the many fine “how to” books out there, providing a balance between building great e-learning (design and technology issues) and implementing it (acceptance and support issues). Both are necessary for e-learning to succeed.

**How This Book Is Organized**

I’ve divided the book into three parts. Part One, “The Opportunity,” sets the stage for understanding the business and technological drivers that are influencing radical changes in learning. Part Two, “New Approaches for E-Learning,” explores these changes in more depth, providing a much broader perspective on
e-learning options and approaches. Part Three, “Organizational Requirements for E-Learning,” focuses on the key infrastructure, environmental, cultural, business, leadership, and organizational factors that can make or break an e-learning initiative. If you are wondering why your e-learning efforts aren’t as successful as you’d like, look here.

The intent is to provide the insight and perspective to make the important strategy, quality, and operational decisions that are necessary for effective e-learning implementation. The critical success factors for e-learning will be explored, as will those actions that can kill even the most promising initiative. Within each chapter, examples will illustrate many key components of an effective e-learning framework. And at the end of the book, a summary of key learnings and questions are provided to help you formulate your e-learning strategy.

A lot of ground is covered, but no single book can go into as much depth on each topic as some people might like. In places, the level of detail provided is augmented by the resources listed in Appendix B.

Throughout this book you’ll read E-Learning Journeys—stories of how corporate learning executives and other influential people in the field, in their own words, made their own personal transition to e-learning. These essays do more than just project the opinion of these leaders as they reflect on their career experiences; they also point out the challenges that everyone, at every level, will face as they move through this significant transformation.

This book assumes a basic to moderate level of reader familiarity with the foundation concepts of learning and technology. If you are responsible for the training efforts of your organization, or if you work in (or lead) your Corporate University, many of the issues you are currently facing will be addressed. Managers from the front line to the executive suite who are responsible for the learning and development of their people, or simply consider such activities important enough to warrant their attention, should also find value in these pages. University faculty and students in learning, human resources, and business improvement fields will find that the strategic nature of this book offers a useful balance to the many processes and techniques that are part of their curricula.
Finally, since many of us have participated in some form of corporate training, perhaps even delved into some computer-based training, it’s likely that some opinions will be challenged or reinforced, or both. The assumption is that you’ve had ample personal and business experience with the Web to be curious and want to explore the power of this new technology.

The book doesn’t provide the “one way” for making e-learning work. In fact, there are many alternatives that can be pursued. Rather, we will address the fundamental reasons why the potential for e-learning has not been fully realized and how that trend can be reversed. When you’re done reading, you’ll still have work to do. There will be many decisions you’ll have to make and many people you’ll have to convince about the value of your vision before your efforts will bear fruit. My hope is that this book will be a valuable guide on your e-learning journey and give you a framework to be successful.
THERE ARE SO MANY PEOPLE who have supported me in this effort that I often think of it as a group project. I have learned a great deal from each of them and I thank them for the free exchange of ideas and best practices that I have tried to embed into this book.

I’d first like to thank my essayists, Barry Arnett, John Coné, Gloria Gery, Elliott Masie, John McMorrow, Maddy Weinstein, and Ray Vigil for their outstanding insight and perspective as they talked about their own e-learning journeys and their perspectives on the field. Their words of experience convey the great possibilities that lie before us as we transform learning.

There were also innumerable contributors of stories and suggestions that enhanced my words tremendously. My deepest thanks go to June Maul and Jonathan Jones for contributing the U S WEST story, and to Cathleen Fuchs, Brad Hall, Sue Pannacione, Jim Reed, Carol Rusin, Albert Siu, Daná Wilson, and Chris Wolff for their generosity in sharing AT&T’s experiences. At Merrill Lynch, thanks to Sharon Gargano, Sandy Kurinsky, and the entire advanced FC training team for their terrific support. Thanks to Carline Dobson, Meg Hayden, Marie Murphy, and the people of Prudential’s learning and leadership team for their story. To Suzanne Pink at nMinds, Darian Hartley at Dell

Acknowledgments
Computer, Dave Stevens at Lucent Technologies, Paul Pinkman and Liz McCraven at CRK Media, Ellen Wagner and Anne Derryberry at Informania, Marcia Conner at Learnativity.com, Betsy Alvarez and Alan Longman at Kepner-Tregoe, Brian Miller at Ninth House Network, Tom Kelly at Cisco Systems, Stan Malcolm at Performance Vision, and John Howe at General Physics Corp.—thank you all for your time and effort.

There would be no book without the support of colleagues at OmniTech Consulting Group and Diamond Technology Partners, Inc. Special thanks to Mathew Adlai-Gail, Ed Arnold, Nancy Bellis, Fred Belmont, Paul Carol, John Faier, Woody Forthsyth, Michael Hoffman, Michael Krauss, Jim McGee, Chunka Mui, and everyone in the New Jersey office for their help and advice, especially Louise Adler and Phevie Mitchel. A special thank-you goes to Joel Krauss, Joan Lufrano and my colleagues “on the ground” in New York for their enthusiastic support and encouragement from day one.

This book is also a reflection of more than 60 years of combined experience and expertise reflected in my three reviewers—Rob Foshay of PLATO Learning, Pat Kelly of AT&T Wireless Services, and John Larson of Lucent Technologies. Actually, they were more like collaborators than readers. I thank them not only for the hundreds of great suggestions, but for their professional and personal friendship. I especially want to express my gratitude to my friend of more than twenty years, Allison Rossett, who has been a great sounding board and inspiration for me.

I would not have had the opportunity to write this book if it weren’t for several people who took a chance and gave me my start in this profession: Diane Dormant, Richard Lincoln, Dean Spitzer, Harold Stolovitch, and Paul Tremper at ISPI, and Chuck Martinetz at AT&T—thank you all.

Finally, I’d like to thank my editor at McGraw-Hill, Richard Narramore, and his team, especially Jennifer Chong and Jane Palmieri, for their support throughout the process.

Oh yes, and my family—Harlene and Brian—thanks for your love and encouragement, and for putting up with me over the last eight months.

Marc Rosenberg
Hillsborough, New Jersey