

E-LEARNING

Strategies for Delivering
Knowledge in the Digital Age

MARC J. ROSENBERG

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To Harlene and Brian

Contents

Web Address	x
Foreword by Allison Rossett	xi
Preface	xv
Acknowledgments	xxiii

PART I

The Opportunity

Chapter 1: Learning Is a Lot More Than Training	3
What Is Learning?	4
The Role of Training	5
A New Era	6
The Transformation Is Underway	6
Broadening Our Perspective: The Role of E-Learning	10
The Internet and Organizational Learning	13
Learner Needs	14
Business Needs	15
What Is Your Purpose in the New World of Learning?	16
Chapter 2: The E-Learning Revolution	19
A Short (and Often Frustrating) History of Technology for Learning	20
The Rise of a Web-Based Learning Industry	25
E-Learning Defined	28
Benefits of E-Learning	29
Why Have an E-Learning Strategy?	31
A Strategic Foundation for E-Learning	32
<i>An E-Learning Journey—Elliott Masie</i>	35

PART II

New Approaches for E-Learning

Chapter 3:	Why Most CBT Doesn't Work and How It Can Be Better	41
	The Road to Better Online Training	48
	Does Multimedia Enhance Learning?	55
	Online Training at U S WEST	58
	Moving a Highly Successful "Soft Skills" Classroom Course to the Web: A Case Study	59
	Online Training Is Just One Part of E-Learning	62
Chapter 4:	Knowledge Management: When Information Is Better Than Instruction	63
	The Web: Classroom or Library?	63
	What Is Knowledge Management?	65
	Types of Knowledge	66
	Knowledge Management Benefits: The Virtual Corporate Brain	68
	The Knowledge Management Pyramid	70
	Performance Support	72
	Is Expertise Always Required?	75
	Integrating Performance Support Into Knowledge Management	76
	Community and Collaboration in Knowledge Management	78
	Managing the Information	81
	Knowledge Structuring Is Key	84
	Knowledge Management for Sales Executives at AT&T Global Services	85
	Knowledge Management for Customer Service at U S WEST	88
	Knowledge Management and Performance Support at Merrill Lynch	90
	Moving Problem-Solving and Decision-Making Skills to E-Learning: A Case Study	91
	Commercial Examples From the Internet	93
	Building a Knowledge Management Solution	103
	Implications for E-Learning	109
	<i>An E-Learning Journey—Barry Arnett</i>	111
Chapter 5:	Integrating E-Learning and Classroom Learning	117
	The New Role of Classroom Training	120

	Building a Learning Architecture	121
	A Learning Architecture for Sales Development at AT&T Global Services	129
	A Learning Architecture for Financial Consultants at Merrill Lynch	133
	A Learning Architecture for Initial Call Center Training at U S WEST	136
	Creating a Learning Architecture for Executives	137
	Can You Put Classroom Training on the Web?	139
	Killer Apps in E-Learning	144
	<i>An E-Learning Journey—Maddy Weinstein</i>	145

PART III

Organizational Requirements for E-Learning

Chapter 6:	Building and Managing an E-Learning Infrastructure	151
	You Cannot Begin Without Access . . . or a Strong Partnership With IT	152
	The Fall and Rise of PLATO: How Advances in Technology Almost Doomed One of the First Real CBT Systems	154
	Learning Portals	157
	Using a Single Web Portal to Consolidate Employee Orientation at Prudential	159
	Learning Management Systems	161
	The Goal of Interoperability	167
	Standards	169
	Learning/Knowledge Objects	170
	Don't Just Throw Stuff Out There!	173
	Some Notes About Authoring	174
	Key Questions to Ask About an E-Learning Infrastructure and Tools	176
Chapter 7:	The Four C's of Success: Culture, Champions, Communication, and Change	179
	Building a Learning Culture	180
	Culture-Building Strategies That Don't Work	181
	Culture-Building Strategies That Do Work	185
	Signs Your Senior Leadership May Not Be Serious About E-Learning	189
	Helping Senior Managers Become True Champions of E-Learning	193

Leadership and Communication	196
Why a Successful E-Learning Strategy Needs an Effective Change Strategy	199
Four Additional Rules of Change	201
How Dell Creates an E-Learning Culture	203
Knowledge Management as a Facilitator of Change at AT&T	205
What About the Training Organization Itself?	207
<i>An E-Learning Journey—Raymond Vigil</i>	207
Chapter 8: Justifying E-Learning to Top Management ... and to Yourself	211
Success Criteria	212
Justifying E-Learning Costs	214
Demonstrating E-Learning Quality	220
Evaluating E-Learning Service	224
Evaluating E-Learning Speed	225
The Two Questions Every Training Organization Asks ... but Perhaps Shouldn't	225
The E-Learning Value Proposition	227
<i>An E-Learning Journey—John McMorro</i>	228
Chapter 9: Reinventing the Training Organization	233
Signs the Training Department May Not Be Truly Interested in E-Learning	234
Can Training Organizations Change?	238
A New Business and Governance Model for the Training Organization	241
Reexamining Facilities as E-Learning Takes Root	245
Outsourcing and E-Learning	246
Professional Development and Recruitment	249
Reinventing Training at Cisco Systems: A Case Study	252
What Can E-Learning Organizations Learn From E-Business?	255
Is It Too Late?	260
<i>An E-Learning Journey—John Coné</i>	261
Chapter 10: Navigating the Vendor Marketplace	269
E-Learning Vendors Can Be Relentless— How to Manage Them	271
Finding Good Vendors	273

	The E-Learning Request for Proposal (RFP)	277
	The Vendor’s Perspective	281
	Maintaining a Good Ongoing Relationship	282
Chapter 11: E-Learning on a Shoestring		285
	When You Don’t Have an Intranet	286
	Buy as Much as You Can . . .	
	Build Only When Necessary	286
	Use Partnerships	287
	Needed: One Good Professional	287
	Don’t Do E-Learning When It’s Not Necessary, but Be Ready When It Is	288
Chapter 12: Creating Your E-Learning Strategy		291
	Who Should Participate?	292
	Analyze Your Current Situation	292
	Describe Your Desired Situation	294
	Set Your Vision	295
	State Your Mission	296
	Gap Analysis	297
	Conduct Force-Field and SWOT Analyses	298
	Strategy Recommendations	301
	Build an Action Plan	301
	Be Wary	304
Chapter 13: The Future of E-Learning		305
	The Challenges Ahead	306
	The End of “e”	311
	<i>An E-Learning Journey—Gloria Gery</i>	311
Appendix A: The E-Learning “Top 20”—		
	20 Key Strategic Questions You Must Answer About the Sustainability of Your E-Learning Efforts	317
Appendix B: E-Learning Resources		323
	Supporting Materials, Resources, and Links at www.books.mcgraw-hill.com/training/rosenberg	
Endnotes		331
Index		337

Web Address

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

Foreword

“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 U S 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

Allison Rossett is a Professor of Educational Technology at San Diego State University and the year 2000 inductee into Training Magazine's HRD Hall of Fame. (<http://edweb.sdsu.edu/people/ARossett/Arossett.html>)

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 Systems¹

“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 Lab²

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.³ 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 isn't 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 discernable 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

technological options become available. And, you constantly test it against the mission and vision of your business, making sure that you are always in alignment. To ignore the iterative nature of your strategy, including your e-learning strategy, would quickly result in stagnation—a death knell in the digital business world.

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,⁴ 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.

Acknowledgments

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.

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*Marc Rosenberg
Hillsborough, New Jersey*