HOW
KNOWLEDGE MANAGEMENT
IS CHANGING THE WAY
WE DO BUSINESS

THE
NEW EDGE
IN
KNOWLEDGE

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Foreword

I first ran into Carla O'Dell in the mid-1990s at a remarkable conference held at the University of California at Berkeley. The conference was to celebrate the first appointment of a Xerox Distinguished Professorship in Knowledge and to honor the first holder of that chair, Ikujiro Nonaka. There were about 30 participants, academics, and practitioners, who were all pioneers in this burgeoning movement to better understand how knowledge works in organizations.

Almost all of those participants are still involved in this invisible college of knowledge researchers, and some of the leading actors in this ongoing drama remain Carla O'Dell and her colleagues at the American Productivity and Quality Center (APQC). Let's look at some of the main principles focused on knowledge management back in those beginning days.

- Knowledge is a fixed pool, a collection of resources that can be measured and used by standard management techniques.
- Technology is the key tool to unlock the value of this resource. The more technology, the better.
- Individuals are the critical unit of analysis in working with knowledge—the more productive the individual, the more knowledge is being used.

It is now clear in hindsight that these principles were developed with information in mind, not knowledge, and that they were not at all suitable to working with such an elusive intangible. It is because of these ideas that many knowledge management efforts ran into problems and that the whole subject began to fade in the minds of busy executives.

However, it didn't die out at all. In fact, it was undergoing a resurgence as I was writing this in 2010. And one of the reasons is the outstanding research and communication of that research by APQC. Their work is grounded, is focused on the actual experience

of workers and managers trying to work with knowledge, and conveys findings in clear and easily absorbable forms. Their yearly conference is one of the best places on Earth to learn, what is happening in the field—direct from those rare birds, the reflective practitioners.

Based on this work and other efforts around the world, we now know quite different things about working with knowledge (in contrast to information).

- Knowledge is better understood as a flow. It is highly dynamic, nonlinear, and difficult to measure or even to manage. Working with it entails new techniques that we are still learning about.
- Although technology surely has its place, working with knowledge is primarily a human activity needing human organization and understanding.
- Knowledge in organizations is profoundly social and best managed in groups, networks, communities, and practices.

I can go on about all we have learned in the days since that Berkeley conference. But perhaps it is enough to stop here and salute Carla and her esteemed coworkers at APQC, who have steadfastly carried forth the mission of understanding knowledge as the critical thing that it is for organizational as well as human progress.

—Larry Prusak, founder and executive director
of the Institute for Knowledge Management

Preface

Knowledge management has come of age, and it is now time to reap the benefits. Organizations that figured out how to secure meaningful value from helping people share knowledge are thrilled with their results and can't imagine working any other way. How else would their far-flung teams collaborate? How else would content and knowledge be shared just in time, with just enough detail, and just for the employee or team seeking it? Some organizations have built their entire business models around their capability to manage and share knowledge. They can't compete without it.

This book tells you how leading organizations achieve great results in knowledge management, or KM, and provides the strategic principles to help you do the same in your organization. Nonprofit research firm APQC has almost 20 years of hands-on experience in KM benchmarking, best practices, and implementation with the best organizations in the world. This book shares what we have learned while leading APQC's efforts and directs you to even more tools and resources.

KM's New Playing Field

Many recent changes in the way we do business and communicate in general have exciting implications for KM. Even companies and governments with mature KM programs have adjusted their strategy for these game-changing trends.

- The digital world has begun to reshape KM. Online social networking has shaken up traditional KM. Although new technologies always present new challenges, no KM function can ignore this opportunity. Enterprise 2.0 tools may be the best thing to happen to KM since the water cooler.
- In their personal lives and on the job, employees have become digitally immersed. Employees of all ages expect more

engagement and access to information and want work processes that reflect the ease with which they communicate outside of work.

- Smart phones and other mobile devices now allow us to communicate and share any place, any time, and with anyone. KM can take advantage of these always-on and always-on-you devices to make content available to employees at their most *teachable moment.*
- A huge demographic is now leaving the work force. As baby boomers exit the playing field, their absence puts a greater need on incoming employees to get up to speed quickly.

These societal shifts have changed the power dynamics for how all organizations operate. An increasingly savvy workforce is dictating how and when they need information, and organizations face tremendous opportunities to turn individual employees' knowledge into organizational intellectual assets.

Employees need vivid, relevant examples and practical advice for everyday work. Executives need a tangible and substantial return on investment. And organizations need to respond to the forces at work and create new approaches. In this new environment, KM is an absolutely necessary core business practice to face the competition. With it, employers can reasonably expect better knowledge-based decisions from their workforce.

Making the Right Game Plan

This book addresses the core strategic issues in making KM successful. We're not just throwing around the term *strategic;* let us emphatically state: This book provides a strategic road map for an enterprise KM program. We share APQC's vast body of knowledge from hundreds of research and advisory efforts. In addition to providing practical and proven advice, we help you build a business case using examples from Accenture, ConocoPhillips, Fluor, IBM Global Business Services, MITRE, Petrobras, Schlumberger, the U.S. Department of State, and many others we have been privileged to work with.

Chapter 1, "Positioning Knowledge Management for the Future," provides the foundation for our discussion of key strategic concerns in KM, as well as detailing KM program objectives and new forces

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in the KM arena. It also introduces a framework to guide your enterprise KM program design efforts.

Chapter 2, "A Call to Action," details how to identify and focus attention on the value proposition and critical knowledge and then provide tools to map and understand that knowledge.

Chapter 3, "Knowledge Management Strategy and Business Case," focuses on the KM program strategy. We show you how to build the business case for enterprise KM to address strategic objectives. We also review how critical knowledge must flow and how a KM program matures.

Chapter 4, "Selecting and Designing Knowledge Management Approaches," describes the primary categories of KM approaches and provides tools, questions, design principles, and key concerns in selecting the right portfolio of approaches. We also explain how to incorporate these approaches into employees' work flow.

Chapter 5, "Proven Knowledge Management Approaches," examines the characteristics, benefits, challenges, and critical success factors for implementing proven approaches such as communities of practice.

Chapter 6, "Emerging Knowledge Management Approaches," examines the promise of Web 2.0 tools and details KM approaches such as wikis, microblogs, social bookmarking, and tagging. We also address best-practice characteristics, measurement tools, and unique challenges posed by these new opportunities.

Chapter 7, "Working Social Networking," further dives into Web 2.0 tools by focusing on the potential of enterprise social networking and provides cautions and guidelines for harnessing the exciting possibilities for KM, including an in-depth discussion of expertise location.

Chapter 8, "Governance, Roles, and Funding," lays out the people infrastructure for an enterprise KM program. We examine strategic concerns surrounding your KM program governance model, core roles, staffing numbers, and funding concerns.

Chapter 9, "Building a Knowledge-Sharing Culture," focuses on the all-important people issues and executive involvement. It provides branding and collaboration advice, a communication strategy template, communication plan discussion points, recognition approaches, and advice for engaging employees.

Chapter 10, "Measuring the Impact of Knowledge Management," explains how to address common measurement needs with

measures by KM program maturity level, a measurement model and alignment worksheet, analytics, and a reporting structure.

Chapter 11, "Make Best Practices Your Practices," explains how to keep a strategic focus for your KM program as change management and implementation demands evolve. Bringing together the guiding principles we detail throughout the book, we focus on how to ensure your KM program continues to mature and improve.

The Appendix, "Case Studies," chronicles four leading organizations with outstanding enterprise KM programs.

Each chapter details the pertinent strategic concerns and then directs you to key implementation resources available online at www.newedgeinknowledge.com.

Who Should Step Up to the Plate?

Whether you are just starting with KM, starting over, or trying to figure out the next big thing, this book could save you a lot of time and money. We tackle the pressing issues in KM today, keeping in mind the enduring principles and the emerging opportunities to successfully manage knowledge.

The perspectives and robust methodologies in this book can help those just getting started as well as those committed to taking their KM programs to world-class levels.

- Many executives are dismayed by the amount of money they spend on KM technology. Information moves around, but what happens to knowledge? Are people smarter? Making better decisions? Selling more? Connecting the dots? Not without a KM strategy that works. This book can help executives spend KM dollars more wisely and understand their role in creating an organization that thrives on its knowledge.
- KM champions and professionals charged with designing and implementing KM programs want help getting funding, getting started, and getting results. This book can help these practitioners create a solid business case for enterprise KM, as well as engage participants. Most importantly, our book provides a practical and strategic approach to translate individual knowledge into action.

This book is not a guide for implementing communities of practice or localized efforts. With APQC, we have written such guides

and have 28 best practices reports, numerous books, and more than 100 detailed case studies of organizations with best practices in KM. Instead, this book is a strategic road map. Many organizations have inefficient and disparate local efforts to manage knowledge; others have repeatedly made unsuccessful organization-wide KM efforts, wasting precious funding and goodwill. And still, some organizations are just starting to try to initiate KM efforts. This book addresses how all such organizations can implement an organization-wide KM strategy that works. The end result is a robust and steadfast enterprise KM program.

Keep in mind that KM has had its ups and downs. At various times, pundits have declared KM dead or a failure. A lot of IT vendors went belly-up in the dot-com bust. They hyped their tools as synonymous with KM, which, of course, they weren't. But organizations still need to get information and knowledge from the employees who have it to those who need it. Those needs never went away. Those needs continue to grow as organizations become more global.

APQC never stopped working in KM. Our research and practice is booming, and our members achieve great results and build deep competency. Our goal is to help everyone, including you, operate at the highest level of KM maturity and results.

Acknowledgments

We thank APQC and our colleagues, families, and friends for allowing us the time to write. Quiet time for dialogue and deep reflection are hard to come by. With their help, writing this book afforded us that.

The best ideas in this book came through collaboration, and we had fun working with each other. We would have nothing to write about without our APQC members and customers and the best-practices organizations we have studied and worked with. You will meet some of them in this book. We treasure the relationships and the shared learning we have with each of them. And we extend a special thanks to the members of our KM Advanced Working Group, who keep us on the cutting edge of KM:

- Baker Hughes Inc.
- IBM Global Business Services
- Marathon Oil Corporation
- Petrobras
- Research in Motion Ltd.
- SAP
- Singapore Armed Forces
- State Farm Mutual Automobile Insurance Company
- U.S. Navy Carrier Team One
- U.S. Army Armament Research, Development, and Engineering Center (ARDEC)

And we thank representatives from the four primary organizations featured in the book for their generosity in sharing their KM experiences over the years with us and with hundreds of APQC members through site visits and case studies. These representatives include: Dan Ranta, Yvonne Myles, and their marvelous teammates at ConocoPhillips; John McQuary, Tara Keithley, and their stellar team at Fluor; Bryant Clevenger, Ruth McLenaghan, and Isabel

Dewey leading the way in IBM Global Business Services; and Jean Tatalias and Marcie Zaharee, who make sure MITRE knows what (and who) it knows.

Without the masterful hand of our APQC editor and project manager, Paige Leavitt, this book could have been just a set of models, reflections, and anecdotes rather than an attempt to transfer our knowledge. We can't thank her enough.

And we give a special thanks to members of our APQC KM team: David Bullinger, Chris Gardner, Jim Lee, Darcy Lemons, Janis Mecklenburg, Lauren Trees, Jeff Varney, Erin Williams, and Angelica Wurth. They make us and our customers all look good.

Contents

Positioning Knowledge Management for the Future

I n 2000, Brad Anderson, then president of electronics retailer Best Buy, called the American Productivity and Quality Center (APQC) for help. Wal-Mart, Target, and other discount retailers were hotly pursuing Best Buy's customers. Anderson wanted Best Buy to exploit the knowledge gained from its head start selling digital electronics. If selling electronics became solely a commodity business, then Best Buy might not win. But Brad knew that Best Buy's customers were struggling to keep up with the explosion of digital technology and would value knowledgeable guidance from the company's sales employees. Brad had just read our book *If Only We Knew What We Know* (Grayson and O'Dell 1998) and called APQC to see if knowledge management (KM) could help.

Fast forward to 2010: Best Buy has grown from 400 to 1,400 stores in the United States and Canada, with another 2,600 stores around the world, and from $6 billion to $50 billion in annual sales (*DailyFinance* 2010). More impressively, Best Buy continues to out-perform its competitors in revenues and margins.

Of course, KM is only a part of the reason; but if you ask the folks at Best Buy, they will tell you the ability to share what they know and act on it has been a large part of their success. The early com-munities of practice that started in 2000 to share knowledge across the stores set the stage for the matrix of knowledge-sharing approaches the organization has today.

Everyone competes on how much they know. Companies lose sales, governments lose battles (especially with terrorists), and

people lose jobs when they don't have the strategy and means to connect the dots. But there's a clear solution.

Although you can't manage the knowledge in people's heads, you *can* capture, enable, and transfer knowledge and best practices.

What Is Knowledge Management?

From a practical perspective, we define *knowledge* as information in action. Until people take information and use it, it isn't knowledge. In a business context, knowledge is what employees know about their customers, one another, products, processes, mistakes, and successes, whether that knowledge is tacit or explicit.

APQC defines *knowledge management* as a systematic effort to enable information and knowledge to grow, flow, and create value. The discipline is about creating and managing the processes to get the right knowledge to the right people at the right time and help people share and act on information in order to improve organizational performance.

Organizations implement a *KM program* to institutionalize and promote knowledge-sharing practices. An enterprise KM program is usually a centralized, organization-wide effort to standardize and excel in KM. Enterprise does not have to be the entire corporation. *Enterprise* may refer to a business entity that is a meaningful cost or revenue center performing work supporting a defined region of customers. Examples include divisions such as IBM Global Business Services and government agencies such as the Department of State or the U.S. Navy. Within such a program, organizations implement KM *approaches* such as communities of practice, expertise location systems, and wikis to formalize and enable knowledge sharing. KM *activities,* on the other hand, are all of the things KM professionals do to support the program and its approaches, such as planning and design, change management, communication, training, and budgeting. Through these activities and approaches, KM programs should:

- Connect employees to one another to help them excel at their jobs
- Connect employees to knowledge assets (just enough, just in time, and just for them)

- Connect those with experience or know-how with those who need it

These actions will accelerate the rate of learning; cut down the risks of not knowing and repeating mistakes; and retain knowledge assets when people move, leave, or retire.

This all requires strategy. To enable KM to succeed in your organization, you will need a well-thought-out strategy. You can waste a lot of money, time, and goodwill by implementing KM approaches before you've determined how your organization will overcome silos, knowledge hoarding, and "not invented here" resistance. You can waste even more of your organization's resources by simply adopting an information technology (IT) tool and calling it a KM program. (Technology alone will not ensure engagement and value.) Let us help you position KM in the sweet spot of knowledge and business strategy. We know what works.

Explicit and Tacit Knowledge

Explicit knowledge (also known as *formal* or *codified* knowledge) comes in the form of documents, formulas, contracts, process diagrams, manuals, and so on. Explicit knowledge may not be useful without the context provided by experience.

Tacit knowledge (also known as *informal* or *uncodified* knowledge), by contrast, is what you know or believe from experience. It can be found in interactions with employees and customers. Tacit knowledge is hard to catalog, highly experiential, difficult to document, and ephemeral. It is also the basis for judgment and informed action.

KM in a New Context

One of us—Carla—wrote her first book on how to implement KM, *If Only We Knew What We Know,* in 1998, when the discipline was less than a decade old (Grayson and O'Dell).

What a difference a decade makes. Witness September 11th, the Iraq and Afghanistan wars, the rise of China as a superpower, global warming, the near meltdown of the global financial system in 2008

and 2009, and the Gulf of Mexico oil rig explosion and resulting pollution in 2010.

The changes are just as substantial as we edge closer to the realm of KM: rising Internet and broadband access, the explosion of mobile devices and smartphones, the continued rise in virtual work and global teams, the international equalization of competitive prowess and knowledge,[1] the decline of readership for the printed word, the rise of digital readership, and on and on.

It would be hard to overstate how profoundly these developments have both challenged and enhanced the promise and practice of KM. KM's core objectives haven't changed, but how we accomplish them has. In this section, we zoom in on the forces affecting organizations and KM now and for years to come. We offer advice throughout this book to deal with them.

A Ready User Base

More than 1.8 billion people have access to the Internet (Shirky 2010). As of July 2010, there were more than 500 million Facebook users (Gaudin 2010) with more than 55 million updates a day and 3.5 billion content pieces shared weekly (Giles 2010). With 4 billion mobile phones in use (CIA 2009b), Neilsen expects smartphones to outnumber cell phones by 2011 (Entner 2010).

Force 1: Digital Immersion

We are experiencing the incursion of the Internet and digital technology into almost every aspect of our lives. Wireless connections and mobile devices have made the Internet available from almost anywhere, and ever-increasing bandwidth has enabled the rise of streaming video and other high-impact content. Employees of all ages spend 70, 80, or even 90-plus hours a week in front of laptops and smartphones, conducting a mix of professional and personal business. Expectations of 24/7 connectivity are affecting the way we work and live.

Many people are comforted by the feeling that they're always getting things done—responding to e-mails in meetings, taking calls in line at the supermarket, and so on. But that feeling may be an illusion.