Preface

Enterprise 2.0 is changing the face of business. Social networks are becoming a mainstream means for promoting communication, especially among the younger generations. Web 2.0 technologies that support these changes are evolving rapidly. The ground is shifting under our feet and much will change even before this book is in print. These are exciting times, and at the same time uncertainties creep in as we try to anticipate what these trends mean for our future. These technologies are changing the way we communicate today and possibly forever. Once technology takes us down a certain path, there is no turning back.

Technology makes it possible for information to reach millions of people all over the world at lightning speed. The organization will be the recipient of this massive flood of information and flow of knowledge. The manner in which organizations use this resource will be critical in strategic planning and aligning business objectives. Organizations must prepare for this new wave of communication trends. Social media including blogs, podcasts, social networks, and wikis are becoming a natural component of professional life. The time frame in which companies have to prepare for this change is becoming exponentially shorter. A tipping point will eventually be reached and the way managers, employees, and customers communicate, collaborate, and connect will be forever changed. Organizations that understand the power of these technologies and begin to experiment with applications today will have an easier transition into this emerging era of the social enterprise.

Enterprise 2.0 technologies will not only change communications, but the ripple effects will flow to the work space. Social networks are transforming work models. Innovation is being approached from a community perspective in which ideas are being sought from anywhere, anytime using collaborative technologies. Customer relationships and connectivity are being managed through social networking applications. Facebook, for example, is being leveraged by some companies for sharing documents and communicating information to customers. The development of RSS (real simple syndication) feeds across the enterprise can build communication bridges among people with common interests. Worker productivity may be enhanced and business value improved if platforms are designed to manage the proliferation of RSS feeds. There are limitless ways in which Web 2.0 technologies may impact work, and these are only a few examples.

Social software trends are hard to control because there is a thin line between organizational applications and personal applications. For example, many employees today are members of LinkedIn for personal professional reasons even though there is no involvement from the perspective of the organization. Even though the organization may have no problems with employee membership in LinkedIn, it is an example of how these technologies proliferate with no control and sometimes no knowledge by the organization. Considerable time may be expended by employees on LinkedIn for personal reasons that may not be directly related to work. On the other hand, many employees would argue that LinkedIn has made their work more productive for things such as looking for qualified employees and getting recommendations in a timely manner. Still, this is typically done with no control from the organization. Social software that promotes freedom of expression brings with it a new level of responsibility to man-
age content creation and monitor access to these resources. Web 2.0 technologies open up new avenues of communication but at the same time present new measures of risk for the company. It is necessary that companies develop social software policies along with their strategic plans for implementing the technologies. This is a new area of policy creation for most companies. These policies, however, will become even more important as information continues to explode and the use of Web 2.0 technologies becomes more prevalent.

Enterprise 2.0 tools are constantly evolving. The technologies are currently at different levels of maturity. It is necessary that companies evaluate the market trends and success factors for implementation by other more experienced companies. Much can be learned from those who have gone before. Most enterprises still struggle to justify the investments in social software and collaborative tools. Making the business case for Enterprise 2.0 technologies is difficult at best. In most cases, a platform solution is necessary to show long-term solutions and benefits. Chief Information Officers (CIOs) must be prepared to make the pitch for longer term benefits even though it is not clear how the technology will evolve over time. Social software and related Web 2.0 technologies pose a challenge for companies to know not only when but how much to invest in these endeavors.

Storage of all this information along with legal and compliance regulations have become huge concerns. Companies were already in the process of implementing systems to manage the content being generated through e-mail and other unstructured information before Web 2.0 technologies appeared on the scene. Now with the explosion of unstructured digitally born data and information, these concerns take center stage as companies struggle to meet legal requirements and compliance standards. These issues will not go away and will likely only become more significant, especially in the short term.

Leaders in organizations will be the agents of change to move their companies through the transition from Enterprise 1.0 to Enterprise 2.0. Determining the appropriate strategy to change the way managers, employees, and customers interact, exchange information, and get work done is a huge undertaking. These changes will not be easy because of the diversity in employee skills. Those in leadership roles are typically not as technologically savvy as the entry-level workforce, and it will be necessary to utilize the talents of younger employees while at the same time bringing seniors in the organization up to speed on this new wave of technology skills. As is typical with every new wave of technology, the challenges fall within the workforce and not the technology per se. Technology implementation is relatively easy compared to the organizational issues and people concerns. Many of these issues are just now beginning to surface and will be key to successful change management.

The purpose of this book is to provide the reader with an overview of the technologies that have become known as Web 2.0. The reader will have a working knowledge of how these technologies are currently being utilized in business, education, and society in general. Current applications and their impact on business will be explored through the various chapters by authors from diverse backgrounds and industries. The value of this book is in its compact coverage of Web 2.0 technologies and applications that are important to know about today. It provides the essential knowledge base from which to proceed and develop more in-depth education or specific skills. All who read this book should walk away with the terminology and basic background to understand the trends that are currently taking place. This provides the reader with a foundation upon which to build.

The book is organized into six main sections. The main theme and content for each section is described following.
Section I: Introduction to Social Software and Web 2.0

The introductory keynote chapter is written by Pete Burkhardt, who has been on the cutting edge of Web 2.0 trends since its inception. This chapter provides the reader with a foundation from which to understand the competing and often confusing terminology that is associated with the phenomenon known as Web 2.0. A distinction is made between terms such as social networking, social software, Web 2.0, and collaboration. These terms are many times used interchangeably. Current issues related to the value of social software and collaboration trends for business are debated in the context of current challenges and opportunities. This chapter provides the reader with a frame of reference from which to evaluate applications for business and education as well as to understand the challenges that may present themselves in this context. These issues make up the discussions for the subsequent chapters in this book.

Section II: Business Applications of Web 2.0 Technologies

The second section focuses on business applications of Web 2.0 technologies. The retail industry has led the way in many respects despite Web 2.0 technologies exploding across all industries and companies both large and small. David Harrell, in Chapter II, addresses applications and examples of the use of these technologies from the perspective of the retail industry. Through the application of Web 2.0 technologies, customer feedback has been transformed. The way consumers approach research and purchase decisions have been changed by Web 2.0 applications. This chapter focuses on consumer-generated content and its impact on customer experiences and behavior patterns. Much experimentation is currently taking place with new possibilities emerging all the time. The concept of the customer relationship is being transformed through the support of these technologies.

In Chapter III, Samantha Bryant presents a conceptual understanding of how the Web 2.0 phenomenon is transforming the marketing mix from a strategic perspective. She argues that the traditional marketing mix represented by the four ps—product, pricing, promotion, and placement—are no longer sufficient to adequately describe the marketing mix in the context of Web 2.0. She contends that a new p, participation, is necessary to adequately describe how customers are participating in each of the original four ps of marketing. She presents some interesting ideas concerning the importance of participation in the marketing-mix concept going forward in this new Web 2.0 world. Traditional marketing has gone through major change since the advent of the Internet and will continue to evolve with the introduction of new technologies.

Finally, Chapter IV takes a more comprehensive approach to how the organization will evolve into the Enterprise 2.0 mind-set and the many challenges and opportunities that will be part of this transformation. Although there is still debate in the literature as to the impact of Web 2.0 and whether this movement is truly transformational for companies, the collaborative and participatory nature of these evolving trends cannot be ignored. Nadira Ali and P. Candace Deans present the premise that Web 2.0 technologies will not only transform the way organizations get work done, but will also transform the roles of leaders, managers, and employees. The implications are much more profound than can probably be imagined today. For one, organizational communication may be changed forever.

Section III: Security and Legal Issues for the Enterprise 2.0 Organization

There are many challenges that will flow out of the implementation of Web 2.0 applications in companies. In Section III, security and legal issues are addressed specifically. Privacy and ethical concerns also play a big role in Web 2.0 technologies and are incorporated into the security and legal discussions of this chapter as well as in the following section focusing on virtual worlds.
In Chapter V, Richard Barnes addresses the security concerns that have emerged with the use of Web 2.0 applications. Many companies have been hesitant to implement Web 2.0 applications because of security issues. The open and participatory nature of Web 2.0 provides an opening for security vulnerabilities that were not as pervasive in the static Web 1.0 world. The details of these security issues are explained in this chapter. Recommendations for how to address these security issues and possible ways to mitigate the potential risks are discussed. Best practices for Web 2.0 security are beginning to emerge and just as with previous technologies, solutions will be found for many of today’s pressing problems.

As mentioned previously, the explosion of unstructured information that companies are experiencing as a result of user participation through Web 2.0 technologies is beginning to pose major concerns for companies. These new forms of communication between users will likely become legal records the same way that e-mail messages are defined as legal records. Companies are finding it necessary to implement content-management software solutions to control this massive amount of information and to ensure that search mechanisms are in place to locate relevant information. Litigation can result in insurmountable costs when relevant information cannot be easily located. Bryan Kimes discusses these issues in Chapter VI in particular reference to e-discovery. Web 2.0 has changed the e-discovery landscape and it is important that companies recognize how U.S. laws have recently changed to include electronic data and information and what the implications may be for companies. Hypothetical scenarios are presented to show alternative situations and possible consequences for e-discovery.

Section IV: Virtual Worlds

The concept of virtual worlds has taken off in recent years. Three chapters are dedicated to this topic because it is relatively new and is evolving at a rapid pace. A substantial number of companies and educational institutions have purchased land in Second Life, for example, and applications are proliferating. It has become clear that 3-D technologies and virtual worlds will play a big role in the Enterprise 2.0 organizations of the future even though the use of these technologies may be very different from the current applications. These technologies are currently in their infancy. As the technology evolves over time and becomes more user friendly, it will likely become mainstream with an increasing blur between reality and virtual worlds.

In Chapter VII, Carolyn Jacobson provides a comprehensive overview of virtual worlds, focusing specifically on Second Life. This chapter serves as a seminal piece that pulls together the current literature and state-of-the-art technology as it exists today. A discussion of the technology and features of Second Life as well as business and educational applications are presented. After reading this chapter, the reader should have an understanding of how virtual worlds developed over time and have evolved in such a short time frame to encompass applications for both business and education.

Sue Conger extends the discussion of virtual worlds in Chapter VIII to focus on the emerging ethical issues and unethical forms of behavior that have become part of this virtual environment. The complexity of issues in virtual worlds mirrors that of the real world. Controls to regulate virtual behavior are only now beginning to emerge and this has become an area of much interest for companies and educational institutions as liability issues and other risks are increased.

In a discussion of legal concerns in Chapter IX, Hunter Jamerson builds on this discussion from the previous two chapters. This chapter addresses the array of legal issues that have emerged out of this virtual-world concept. Legal issues raised in Chapter VII are more extensively discussed here. Property rights and inappropriate behavior including stealing, murder, rape, and other acts of violence have become huge concerns. The U.S. legal system is not currently designed to address legal concerns in a virtual context. Virtual worlds have their own code of conduct and service agreement terms that
currently govern participant actions. There is much debate as to how conflicts and disputes should be resolved. As virtual worlds continue to merge with real-world operations, legal matters will take on greater significance. An interesting discussion of these current issues and emerging areas of concern is presented in this chapter.

Section V: Theoretical and Educational Perspectives on Web 2.0

In the final section, a theoretical perspective on Web 2.0 technologies is presented. Tom Reinartz provides a convincing argument for the evolution of new learning environments that are supported by Web 2.0 tools. He uses theoretical underpinnings to support the link between Web 2.0 technologies and their contribution to more authentic and meaningful learning outcomes. These technologies provide the impetus for a paradigm shift from an instructor-centered process for learning to a more co-collaborative and participatory model. The younger generations today are embracing social networking opportunities such as Facebook, MySpace, and Flickr. This represents a new way of interacting and participating within environments of learning. Educational processes in the business context as well as in the academic setting will out of necessity move from linear to more collaborative interactions.

This chapter emphasizes the significance of Web 2.0 trends for education that will in turn have tremendous implications for business. It will be essential that businesses understand this evolution and the learning styles and instinctive ways of communicating that will be part of the future generations entering the workforce. The Web 2.0 movement is expected to have a significant impact on how education is delivered and subsequently on how students learn. This evolution is currently in its infancy but the potential impact is already unfolding. Businesses will need to embrace this change in ways that provide positive results. Although the challenges are many, so are the opportunities for those who seize the possibilities and act.

Section VI: Glossary and Web 2.0 Tutorial

The final section of the book includes a glossary of terms and a Web 2.0 tutorial. These will benefit the reader who is less familiar with the terminology of Web 2.0 and the uses of the various tools. The tutorial provides some background and perspective as well as a concise guide to using the technologies for basic applications. Although an extensive number of how-to books exist, most of these provide more than most readers want or need in order to have a general understanding of the basics. In addition, the tutorial provides coverage of the major Web 2.0 technologies in one document. For those who only need a good overview, this tutorial serves that purpose well. It may be beneficial to read the tutorial first. The chapter content may be easier to follow and may spark more creative ideas when read after the tutorial.

The tutorial is divided into sections based on the major Web 2.0 technologies. These include blogs, podcasts and videocasts, wikis, virtual worlds, social networks, social bookmarks, social photo sharing, social tagging, mashups, and Web conferencing. Each section follows a similar format. The outline for each section includes historical perspectives, current trends, business applications, educational applications, hands-on descriptions, future trends, and additional relevant resources. This tutorial provides a valuable resource and reference for the reader who needs a simple hands-on explanation of the technologies. It should be noted that this tutorial also has value as a stand-alone component.
CONCLUSION

Content updates have been incorporated in this work to the extent possible in the final revisions. It should be noted that there may still be some overlap in content across chapters and with the content of the tutorial. It is difficult to completely avoid this given that each author is to some degree writing in a vacuum. In an ideal world where deadlines are met and time frames are adhered to, there is time for numerous revisions. In the real world, it is sometimes necessary to live with some imperfection, especially when technology is changing so rapidly. It is possible that in the future, all writing will be done using a wiki-type format so that the content is continuously being updated and there is continuous revision and oversight by many participants. It is the intention here that the reader find value in this work today since its life span is likely to be short lived.