SOCIAL MEDIA
SECURITY

Leveraging Social Networking While Mitigating Risk

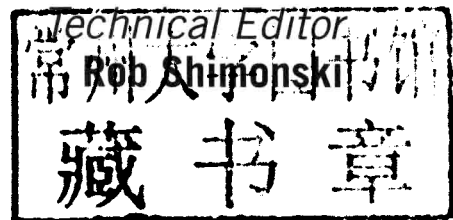Michael Cross

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Technical Editor

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Acknowledgements

This book is gratefully dedicated to my wife and children, who were unbelievably supportive and helpful in making this possible. As I completed the chapters, my wife read them and provided the perspective of a reader who wants to know how to use social media effectively and securely. At the time this book comes out, my wife Jennifer and I will have been together 20 years. I love her as much today as when we first got together, and anyone who knows her can understand why.

We have three children that are full of ideas and dreams, and have no reservations in sharing them. Throughout this book, each of them showed their interests and individuality, and contributed their own suggestions. Sara at age 10 showed her compassion for others, offered insights into the concerns children have about cyber-bullying and online harassment, and took interest reading the sections on those topics. Jason at age 8 showed his love of technology and how things work, but still managed to surprise me when he offered suggestions about adding information on hacking. Emily at age 7 shared her independence and thoughts on protecting others, proposing I add information on blocking users and sites. Rather than being upset about how little they saw me as I worked on the book, they found their own ways to become a part of it.

About the Author

Michael Cross is a SharePoint Administrator and Developer, and has worked in the areas of software development, Web design, hardware installation/repairs, database administration, graphic design, and network administration. Working for law enforcement, he is part of an Information Technology team that provides support to over 1000 civilian and uniformed users. His theory is that when the users carry guns, you tend to be more motivated in solving their problems.

Michael has a diverse background in technology. He was the first computer forensic analyst for a local police service, and performed digital forensic examinations on computers involved in criminal investigations. Over five years, he recovered and examined evidence involved in a wide range of crimes, inclusive to homicides, fraud, and possession of child pornography. In addition to this, he successfully tracked numerous individuals electronically, as in cases involving threatening email. He has consulted and assisted in numerous cases dealing with computer-related/Internet crimes and served as an expert witness on computers for criminal trials. In 2007, he was awarded a Police Commendation for the work he did in developing a system to track local high-risk offenders and sexual offenders.

With extensive experience in Web design and Internet-related technologies, Michael has created and maintained numerous Web sites and implementations of Microsoft SharePoint. This has included public Web sites, private ones on corporate intranets, and solutions that integrate them. In doing so, he has incorporated and promoted social networking features, created software to publish press releases online, and developed a wide variety of solutions that make it easier to get work done.

Michael has been a freelance writer and technical editor on over four dozen IT-related books, as well as writing material for other genres. He previously taught as an instructor and has written courseware for IT training courses. He has also made presentations on Internet safety, SharePoint, and other topics related to computers and the Internet. Despite his experience as a speaker, he still finds his wife won't listen to him.

Over the years, Michael has acquired a number of certifications from Microsoft, Novell, and CompTIA, including MCSE, MCP + I, CNA, and Network +. When he isn't writing or otherwise attached to a computer, he spends as much time as possible with the joys of his life: his lovely wife Jennifer, darling daughter Sara, adorable daughter Emily, and charming son Jason.

For the latest information on him, his projects, and a variety of other topics, you can follow him on Twitter @mybinarydreams, visit his Facebook page at www.facebook.com/mybinarydreams, follow him on LinkedIn at www.linkedin.com/in/mcross1, or read his blog at http://mybinarydreams.wordpress.com.

About the Technical Editor

Rob Shimonski (www.shimonski.com) is a security expert specializing in penetration testing, ethical hacking, and security engineering and design. Having been involved in Social Media since its inception, Rob has deep knowledge on its use, benefits, and flaws. He has over 20 years experience working with security and technology.

Rob is also a best-selling author and editor with over 15 years experience developing, producing, and distributing print media in the form of books, magazines, and periodicals. To date, Rob has successfully created over 100 books that are currently in circulation. Rob has worked for countless companies including CompTIA, Entrepreneur Magazine, Microsoft, McGraw Hill Education, Cisco, the National Security Agency, and Digidesign.

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Technology has become less about connecting computers and more about connecting people. A major reason for this evolution is that the use of social media has exploded in the last few years, making it easier for individuals and businesses to contact others and get their messages across to large audiences. According to a July 2012 study by the McKinsey Global Institute, there are 1.5 billion people using social networking throughout the world, with 80% of them interacting regularly with other social media users. Its popularity and the drive to reach to customers has led to 70% of companies using social media. Social technology has become a way of life in how we socialize and do business.

However, while social media is a powerful tool for interacting with others, many people and organizations have jumped into using it without considering the risks. The threats you face can affect your safety, job, and business. In this book, we'll show you how to deal with the potential dangers, but before that, let's start by understanding what social media is and how it's evolved.

Understanding social media

When you think of social media, you probably think of sites like Facebook, Twitter, and LinkedIn. After all, it's common to go to a company's site and see graphic links

that take you to the company's presence on these other sites. In making this connection, you're not wrong. The same way that you associate traditional media with newspapers, TV stations, and other methods of publishing professional content, you can understand social media by looking at how information is being communicated. Social media is defined by how it's used and the technology that supports its features.

Social media takes traditional forms of media to a whole new level. It is different from a news article or billboard that has information professionally created, polished, vetted through people who check and sign off on the content, and sent out as a one-way message to an audience. With social media, the information is generated by a user or brand, generally isn't intensely scrutinized before being sent out, and transmitted in a way that allows two-way communication with people. Also, while it is often costly to get a message out using traditional media, using social media is relatively inexpensive or free.

One of the major features of social media is of course its social aspect. Traditional media tells a person what the message is and doesn't interact with the consumer. Features of social media provide the ability for users to comment on what's being said. If a columnist posts an article on a blog, a person can respond to it immediately by adding his or her own remarks. The columnist could then reply to these comments, creating a conversation. Rather than telling people what they should think, social media changes the information into an informal exchange of views. Even better, anyone can join in on sites that are accessible to others with no real technical experience. The readers can even go and create their own blogs, allowing them to write about any topic they want or share a free flow of ideas. Unlike traditional mediums, boundaries are broken down; the reader can become the writer any time he or she wants.

By looking at these functions and features, we can see that social media is a term that describes various technologies being used to engage people in collaboration, the exchange of information, and interactivity with Web-based content. Because the Internet is always evolving, the technologies and features available to users are always changing. This makes social media more of a hypernym (or blanket term) than a specific reference to any particular use or design.

Different types and classifications

As soon as you begin looking at social media, you quickly realize there are significant differences in the purpose and functionality of different sites. Twitter may be great for sending out short messages to an audience but useless for cooperating with others on writing a long article. Similarly, if you were posting a video instead of text, you would probably use a site like YouTube. Because there are hundreds of social media sites and applications, it is important to differentiate between them. By narrowing them down into specific groups, it's easier to understand the types of social media available to you and which you should use for a specific purpose.

In a 2010 article published in Business Horizons, Andreas Kaplan and Michael Haenlein created a classification scheme for different types of social media. Through the use of existing theories in the fields of media research and social processes, they identified six categories:

1. Collaborative projects
2. Blogs
3. Content communities
4. Social networking sites
5. Virtual game worlds
6. Virtual social worlds

Collaboration

Collaboration sites allow multiple users to generate content and contribute to a final product, making the content produce a community or group effort. The most popular example of this would be *wiki's*, which are Web sites that allow individual users to add and edit content. On a wiki, I write something, you add to it, and perhaps someone else edits what we wrote. Because peers with different experience and knowledge are reviewing the content, inaccuracies are eventually discovered and corrected. By everyone working together, the content builds.

The term "wiki" comes from the Hawaiian word for "fast," which was used by Ward Cunningham in naming the first such site in 1995 called WikiWikiWeb (http://c2.com/cgi/wiki?FrontPage). Undeniably, the most popular wiki today would be Wikipedia (www.wikipedia.org), which has been edited over 1 billion times and has (at the time of this writing) over 4,179,670 articles. As you can see by this, the amount of information produced can be significant when people jointly create and work together.

In organizations, wikis and other collaboration tools can be extremely useful for communicating information and allowing members of a team to contribute to what's being said. As with many types of social media, collaboration sites can be either on the Internet where they are accessible to the public or select groups of people, or on a company's intranet where it is only accessible to those with secure network access. Organizations like Disney, Cingular Wireless, British Telecommunications, and CERN (the European Organization for Nuclear Research) have all used wikis for projects with great success. Users of the wiki require little to no assistance from the IT department, decreasing the need for administrative effort. Added to this, collaboration sites can serve as a repository of information on a project, centralizing information that was previously scattered in documents, presentations, and other files across the corporate network.

The *collaboration project* classification also includes social bookmarking sites, such as reddit (www.reddit.com) and Delicious (www.delicious.com). A *bookmark* is a shortcut to a location on the Internet. As seen in Figure 1.1, these sites are used to post links to content on other sites, such as Web pages, videos, and images, and associate keywords called *tags* that are used to categorize each link and make them easier to find. Other people search the site, view these links, and can add them to their own bookmarks with additional tags. Sites like reddit will even allow you to