

**Web 2.0 for the Teachers of Professional and Technical Writing:  
Embrace it or Avoid it?**

Prepared for Professor Michael Moore

Prepared by Virginia Simmon

TWC 521

May 8, 2009

## Table of Contents

Executive Summary	iv
Introduction	1
Background	3
Beginning of Technical Communication as an Academic Discipline	3
Beginning of the World Wide Web	3
Impact of Web 1.0 on Education and Writing	4
Definition of Web 2.0	4
Guiding Questions	8
What is the impact of Web 2.0 on the general public?	8
Does the workplace use Web 2.0?	9
Does education use Web 2.0?	9
Do recently published textbooks address Web 2.0?	11
What are the consequences for not teaching Web 2.0?	11
Conclusion	12
References	14

## List of Illustrations

Table	
1. Differences between Web 1.0 and Web 2.0	6
Figures	
1. O'Reilly's Web 2.0 Meme Map	7
2. <i>Time's</i> Cover	8

## EXECUTIVE SUMMARY

The purpose of this white paper is to help teachers of professional and technical writing make curriculum decisions about Web 2.0 in their writing classes. Should they focus on teaching basic writing skills or should they integrate the latest technology?

Web 2.0 is a controversial term. Some people call it a revolution; others dismiss it as meaningless communication. The term was first used by Tim O'Reilly to describe the successful practices of Web companies after the dot-com collapse in the 1990s. He found that Internet software companies such as Google that supplied service were more successful than companies such as Netscape that provided software. O'Reilly listed blogs, podcasts, YouTube, Facebook, and other interactive software as Web 2.0. These tools allowed users to communicate, collaborate, and share easily and quickly.

Five questions guide the decision-making process.

1. What is the impact of Web 2.0 on the general public?
2. Does the workplace use Web 2.0 tools?
3. Does education use Web 2.0 tools?
4. Do recently published textbooks address Web 2.0?
5. What are the consequences for not teaching Web 2.0?

Research suggests that Web 2.0 has made a considerable impact on the general public, the workplace, and the classroom. In fact, *Time* magazine honored the users as Person of the Year. Businesses are developing ways to communicate. Schools are adapting their curriculum to meet the needs of the students who are already using the tools. The consequences of not teaching Web 2.0 may lead to ill-prepared employees who may fail in their jobs.

Teachers of professional and technical writing should look to the past for the fundamental principles of the discipline, know the impact of Web 2.0, and, most of all, adapt to changes.

# **Web 2.0 for the Teachers of Professional and Technical Writing: Embrace it or Avoid it?**

## **INTRODUCTION**

With the burgeoning advances in technology and the demands on teachers to keep pace with the current trends, deciding what to include in the writing curriculum in the classroom becomes problematic. Should a teacher limit instruction to fundamental writings skills, or should a teacher enhance instruction with the latest technology? Would adding technology lessons detract from teaching effective writing? These questions are not new. Sandi Harner and Anne Rich (2005) voice the same concerns in “Trends in undergraduate curriculum in scientific and technical communication.” Although they discuss the curriculum in a program instead of a course, they pose the same question about how specialized should the courses be. In this article, Carolyn Rude, former director of the technical communication program at Texas Technological University, reflects that she debated how many specialized technology courses she should offer in place of generalized ones. In the same article, Stephen Bernhardt argues that programs should “be built on broad, useful rhetorical education, coupled with a skill set that all students share in writing and document design” (Harner & Rich, 2005). In other words, writing classes should offer rhetorical skills and a general skill set for technology?

At the heart of a current controversy is Web 2.0. Some people feel this is a major shift in communication styles. *Time* (2006) calls it a revolution. At the 2008 Modern Language Association Conference in San Francisco, Richard E. Miller, a professor of English at Rutgers University at New Brunswick, (2008) argues that Web 2.0 changed not only the way people

write, but also what people write. "We are living at the moment of the greatest change in human communication the world has ever seen," he said. His view represents those that believe Web 2.0 is a world- changing event (<http://chronicle.com/news/article/5712/mla-2008-market-realities-in-san-francisco>)

Others feel differently. David Bawden & Lyn Robinson (2008) in "The dark side of information: Overload, anxiety and other paradoxes and pathologies" identify problems created by Web 2.0. They feel Web 2.0 leads to a loss of identity and credibility. Anyone can write anything. "The nature of Web 2.0 tools also promotes an information landscape based on shallow novelty" (Bawden & Robinson, 2008). The information that is produced is done so quickly and easily that it may not be well-researched or even meaningful. (Bawden & Robinson, 2008).

The purpose of this white paper is to help teachers of professional and technical writing make curriculum decisions about Web 2.0. The paper poses five questions that may guide their decision making process:

1. What is the impact of Web 2.0 on the general public?
2. Does the workplace use Web 2.0?
3. Does education use Web 2.0?
4. Do recently published textbooks address Web 2.0?
5. What are the consequences for not teaching Web 2.0?

These discussions are by no means comprehensive. They are offered as a starting point for further research on each topic. The answers, however, should provide insight into the pertinent issues.

## **BACKGROUND**

One way to determine the impact of Web 2.0 is to look at the impact of Web 1.0 in education especially in writing classes such as technical communication. Prior to the Web, technical communication teachers felt using computers for writing was important. With the Web, computers played a more significant role in shaping the curriculum.

### **Beginning of Technical Communication as an Academic Discipline**

In the 1980s technical communication became a respected academic discipline (Kelley, 1991). In the article “Teaching technical communication,” teachers of technical writing were concerned about these issues: (1) real-world application, (2) process/ product controversy, (3) oral and visual components, and (4) the importance of computers (Kelley, 1991).

These concerns laid the foundation for teaching technical communication. Curriculum should reflect the practices of the workplace by using documents as models and real-world situations as contexts for writing projects. Teachers should value the process of writing as well as the product. Teachers should recognize visual design and oral presentations as critical parts of the course. Finally, teachers should use computers as a tool in writing.

### **Beginning of the World Wide Web**

In 1989, Tim Berners-Lee and Robert Callia developed a hypertext code that allowed users to share documents on the Internet. Berners-Lee called the system that linked documents the World Wide Web. The users of this system remained mostly scientists until Marc Andreessen and other students wrote Mosaic, the first browser for the PC in 1993 (Schneider & Evans, 2007).

## **Impact of Web 1.0 on Education and Writing**

In 1993 there was no Web in education (Ko & Rossen, 2004). Teachers described their classrooms with desks, chairs, and blackboards. By 1994 CalCampus introduced online education. (<http://www.aiuonline.edu/online-education/online->). Teachers started describing their classrooms in terms of discussion boards and assignment tools. By 2006, “3.5 million students were taking at least one online course” (<http://www.aiuonline.edu/online-education/online->)

Writing also felt the impact of the Web. In the 2003 article, “The impact of electronic communication on writing,” Abdullah 2003) notes that electronic communication developed new language and methods of communication. “Hailed as a powerful educational resource, the e-medium has not only revolutionized the composing process but has also been found to encourage participation in writing activity” (Abdullah, 2003). Some examples of e-communication were chat rooms, e-mail, and Web-based Discussion Boards. Abdullah’s described the impact similarly to those who now describe the impact of Web 2.0.

## **DEFINITION OF WEB 2.0**

For teachers to decide whether to use Web 2.0 or not, they must know what it is and its characteristics. This white paper summarizes the characteristics briefly without giving lengthy technological descriptions of software.

Web 2.0 was first used by Tim O’Reilly, founder and CEO of O’Reilly Media, Inc, in a conference brainstorming session with Dale Dougherty, web pioneer and CEO of MediaLive International in 2003. They were discussing the collapse of doc-com companies in the early 2000s. They felt that instead of the Web’s impact evaporating, the Web reached an exciting new phase. The companies that survived seemed to practice a different style of application. O’Reilly coined the term Web 2.0 to represent the changes.

<http://oreilly.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html?page=1>

After much debate, O'Reilly simplified his definition of Web 2.0 .in 2006. “Web 2.0 is the business revolution in the computer industry caused by the move to the internet as platform, and an attempt to understand the rules for success on that new platform. Chief among those rules is this: Build applications that harness network effect to get better the more people use them”

(<http://radar.oreilly.com/2006/12/web-20-compact-definition-tryi.html>).

Click on YouTube for a short video to listen to O'Reilly define Web 2.0.

<http://www.youtube.com/watch?v=CQibri7gpLM&feature=related>

Other definitions share the same concepts. The editorial, “ How web 2.0 is changing medicine”, suggests that instead of defining Web 2.0 in technical terms, it should be defined as “the spirit of open communication and sharing”

(<http://www.bmj.com/cgi/content/full/333/7582/1283>).

In the first brainstorming session with Dougherty, O'Reilly created this table to illustrate the differences he saw between Web 1.0 and Web 2.0. (See Table 1.)



Table 1: Differences between Web 1.0 and Web 2.0

Source: <http://oreilly.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html?page=1>

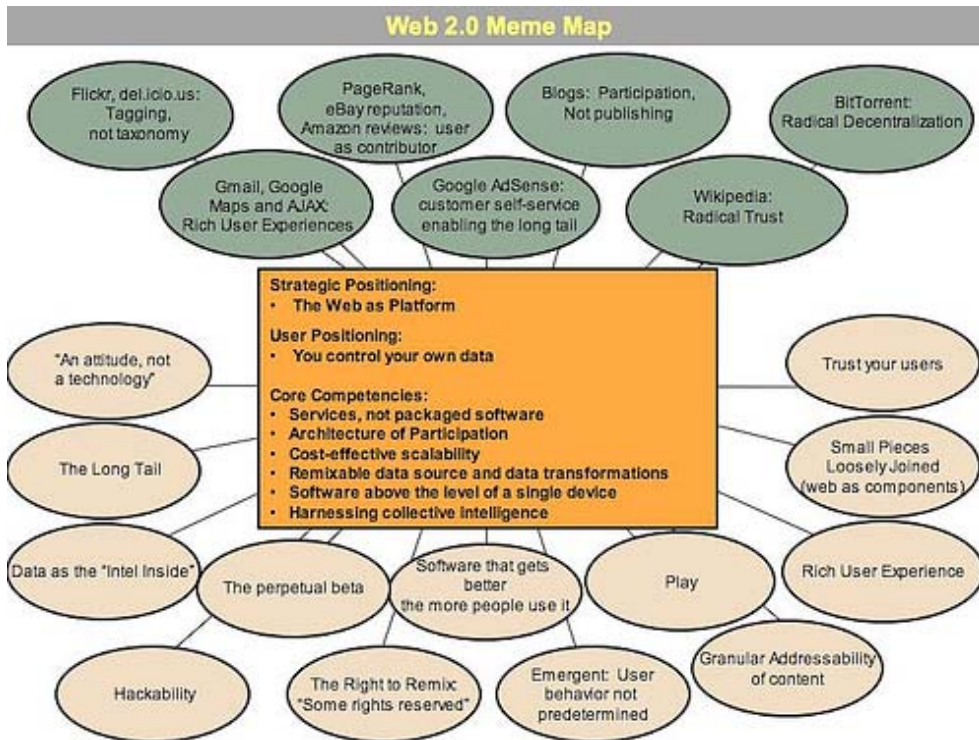
Web 1.0		Web 2.0
DoubleClick	→	Google AdSense
Ofoto	→	Flickr
Akamai	→	BitTorrent
mp3	→	Napster
Britannica Online	→	Wikipedia
personal websites	→	blogging
evite	→	upcoming .org and EVDB
domain name speculation	→	search engine optimization
page views	→	cost per click
screen scraping	→	web services
publishing	→	participation
content management systems	→	wikis
directories (taxonomy)	→	tagging ( “folksonomy”)
stickiness	→	syndication

The success of Web 2.0 companies seemed to rest on their ability to deliver service instead of software to the users. The power changed from software companies such as Netscape to Internet service companies such as Google.

To illustrate the concept that the web is a platform, O’Reilly drew this meme. Each circle represents principles or practices that tie into the core values of Web 2.0.

Figure 1: O'Reilly's Web 2.0 Meme Map

Source: <http://oreilly.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html?page=1>



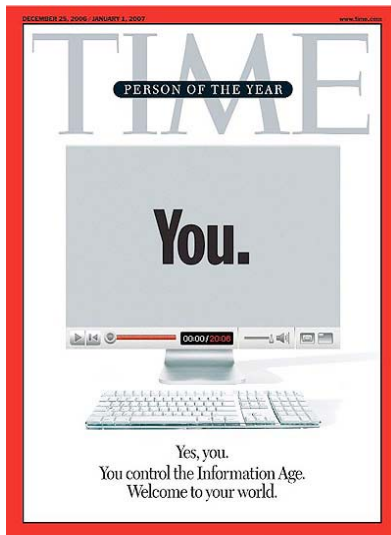
In the article, “Web 2.0: What technical communicators should know,” William Hart- Davidson (2007) describes Web 2.0 as trends in user behavior. The first trend is users produce and share content. Examples of this trend are Wikipedia, YouTube, Flickr, and MySpace. People do not need to know programming language to produce movies, share music, or contribute knowledge. The second trend is users organize data. These examples are del.icio.us, Amazon, and dig. Users can tag information and organize it the way they want. The third trend is users access the web site and enrich the function of the site. For example, Google Maps, YouTube, and Blogg RSSfeeds allow users to add different features to the site to create their own experience. They can change sites by adding blogs or videos. The fourth trend is users have social goals as well as work goals. Examples of this trend are the social networking sites of MySpace, Facebook, and Twitter. Davidson (2007) said “Web 2.0 represents a shift in the power of the users to shape their own experience and thereby to shape the experiences of others.”

## GUIDING QUESTIONS

After teachers understand the meaning of Web 2.0 and can identify web technologies, they must grapple with its effects. Do people really use Web 2.0? If they do, does Web 3.0 have merit in the workplace and in the classroom? If it has merit, should teachers recognize its importance?

### 1 What is the impact of Web 2.0 on the general public?

The use of Web 2.0 tools seems to be part of everyday culture. For example, a recent article on the front page of the *Arizona Republic* (2009) announced that health-care professionals would use social networking sites such as Facebook, MySpace, and Twitter to notify young people who have asthma about the particulate pollution levels in their neighborhoods. Given the seriousness of transmitting this information, the health officials must have evaluated many methods of communication



before they decided to use them as the most effective ways to reach their audience.

A more compelling example of the wide spread use of Web 2.0 is *Time's* Choice of 2006 Person of the Year: You. Grossman (2006) uses the terms “cosmic compendium of knowledge Wikipedia,” “million-channel people’s network You Tube,” and the “online metropolis of MySpace” to describe the dimensions of Web 2.0 use.

Figure 2 *Time's* 2006 Person of the Year CoverSource:  
<http://www.time.com/time/covers/0,16641,20061225,00.html>

Grossman (2006) described Web 2.0 by saying it was not Berners-Lee’s Web that mostly scientists used. Nor was it the same Web the dot-coms developed in the late 1990s.

The new Web enables millions of people to contribute their ideas to other millions. Grossman congratulated these users by saying, “For seizing the reins of the global media, for founding and framing the new digital democracy, for working for nothing and beating the pros at their own game, TIME’s Person of the Year is you.” (<http://www.time.com/time/magazine/article/0,9171,1569514,00.html>).

### **3. Does the workplace use Web 2.0?**

The workforce is exploring ways to use Web 2.0. In the article “Web 2.0 tools gain enterprise Acceptance,” Gibson (2009) discusses ways that companies are creating their own social networking systems. IBM uses a tool called Beehive for social networking. The company is tying it in with other Web 2.0 tools such as blogs, wikis, and a Twitter. Microsoft also uses a social networking feature called My Site which resembles Facebook. Companies are beginning to realize the need for “new tools to build a corporate culture in which knowledge is quickly located and shared.” (Gibson, 2009)

In the article “Technical communicators put the public in public health,” Dr. Thomas Barker describes the use of social networking in the School of Public Health in Edmonton, Alberta. The health agencies could use social networking to engage the public in policy making, to alert them to dangers such as a pandemic flu, or to respond to disasters. “ He mentioned that the health agencies did not use the technology yet, but may in the future.

Another article, “Your wiki isn’t Wikipedia: How to use it for telecommunication” (2009) advises companies to use wikis for project management. The advantages are the wiki can organize material in one place which is accessible to everyone.

### **4. Does education use Web 2.0?**

The more recent the research, the more likely the research points to advocating the use of Web 2.0 tools in the classroom. Jeffrey R. Young, a professor at the University of California at Berkley published an article “Why Professors ought to teach blogging and podcasting” in the April 11, 2008 *The Chronicle of Higher Education*. Young argues that students need to know how to use various Web tools because this is the way political discourse takes place.

“In the 21<sup>st</sup> century, civic education is participatory media-literacy education.” The citizen who listens passively to the news is different from the citizen who uses one of the tools such as posting a blog.

Steve Haragon (2008) advocates for using 2.0 tools in the K-12 Classroom (<http://www.britannica.com/blogs/2008/10/moving-toward-web-20-in-k-12-education>) Students are already using Web 2.0 technologies. Haragon cites a report from “BECTA (the government agency leading the UK drive to ensure the effective and innovative use of technology throughout learning. In a survey of, students in the ages between 11 and 16, 74% had at least one social networking site, and 78 % had uploaded a picture, video, or music on the web. Because of the widespread use of Web 2.0 tools among students, schools must rethink their style of education. “I think the inherent characteristics of Web 2.0 are so aligned with significant educational pedagogies that we are going to have to dramatically rethink our educational institutions and expectations because of them.” Whether schools see the Web as a revolution in communication or meaningless trivia, students are still participating in the Web with usually little guidance. schools

Donna Baumbach (2009) in “Web 2.0 & you” researched the current use of Web 2.0 tools by school library media specialists. Baumbach concludes that media specialists need to use these tools for a number of reasons. They need to teach literacy skills and to participate in a “networked public culture.” She cited research that recommended that “to stay relevant in the 21st century, education institutions need to keep pace with the rapid changes introduced by digital media” (MacArthur Foundation 2008). In order to survive, media experts must keep pace.

#### **4. Do recently published textbooks address Web 2.0?**

Even though Web 2.0 may be a popular for the general public, teachers look for textbooks that contain the information they need. Four recently published textbooks included information and lessons about Web 2.0 and/ or using Web 2.0 technologies:

- *Technical Communication* ( 2010) by Mike Markel
- *The McGraw-Hill Guide: Writing for College, Writing for Life* (2009) by Duane Roen, Gregory Glau, and Barry Maid
- *Excellence in Business Communication* ( 2008) by John V. Thill and Courtland Bovee
- *Technical Communication Today* ( 2007) by Richard Johnson Sheehan

All of these textbooks contained information about blogs and podcasts. Markel and Thill used the term Web 2.0. Markel presented a workshop at Arizona State University in February 2009. When asked about his view on Web 2.0, he said he added a chapter because it reflected the current trends in business communication (personal communication, February 24, 2009). Markel defined Web 2.0 as the “new generation of interactive Internet –based services such as wikis, social networking sites, blogs, social bookmarking sites and folksonomies. These sites let users create, share, and link in ways that could not be done on the Web 1.0 sites

#### **5. What are the consequences of not teaching about Web 2.0?**

Students may use Web 2.0 tools without any guidance about its far-reaching effects. For example, when students enter the workforce, they may feel they can blog about anything they want. This is not the case. They can be fired for not knowing the company policy on blogging even if the company doesn't have a blogging policy. (Risks to blogging, 2008)

<http://techwag.com/index.php/2008/10/26/risks-to-blogging-being-fired/>

Students also may upload personal pictures on the social networking sites that may derail their job prospects. In fact, they could even be arrested. <http://mynaym.com/archives/2008/03/22/youtube-facebook-and-myspace-used-as-evidence/>

In a riot at the University of Massachusetts after the school lost a football game to Appalachian State, the campus police arrested 34 people. They identified some students because their pictures were posted on Facebook, MySpace, and YouTube.

Other consequences of misuse could be poor reports, uninformed presentations, and unprofessional performance. In a humorous article, “What Web 2.0 has taught the Workforce 2.0” Soat describes the possible effects on business when students enter the workforce with Web 2.0 skills. Students who use wikis especially Wikipedia would write trivial and inaccurate reports. They are so used to reading everything on the Internet as the truth, they can no longer judge credibility. Second, students use file sharing to illegally download music. The possible outcome is company presentations using the Theme from “Fall Out Boy” and “My Chemical Romance” (Soat, 2007). Students blog. The outcome is students haven’t done much research, but they feel their opinion counts.

## **CONCLUSION**

Teachers of professional and technical writing are faced with curriculum decisions. Should they teach the fundamental skills of writing or should they integrate new trends in technology?

Web 2.0 presents a dilemma. Some call it a revolution; others call it a meaningless form of communication. Web 2.0 refers to the new Internet applications that allow users to communicate and share documents quickly and easily. Some of these new tools are blogs, wikis, podcasts, YouTube, and social networking sites such as Facebook and MySpace. Users now have the power to control their own online experience and therefore control the experience of others.

Five questions guide the decision making process. The questions inquire about the use of Web 2.0 in the general culture, the workplace, and the classroom. The final question analyzes some consequences for not teaching Web 2.0.

Research suggests that Web 2.0 has a significant impact on all three areas: everyday life, business, and education. Millions use Web 2.0 tools every day. Businesses are creating new ways to communicate. Schools are adapting lessons to guide students who are already coming to school using Web 2.0 tools. The consequences for not using Web 2.0 tools successfully can be detrimental to careers.

The question to embrace Web 2.0 or avoid it resembles the either/or fallacy in logic. The truth usually lies in the middle. But even a movement from a zero position to a middle position is significant.

- Teachers of professional and technical writing should look at the fundamental goals of technical communication for guidance.

Does Web 2.0 reflect real-world experiences? Are there oral and visual components in Web 2.0? Is there a process as well as a product? Does Web 2.0 place technology in a prominent position? The answers to these questions are yes.

- Teachers of professional and technical writing should look at the demands in the workplace.

Are companies using Web 2.0 tools? Are they demanding competence in using the tools? The answer is yes.

- Is education changing its methods of teaching to adapt to the new skill set of its students? The answer is yes.

An article “Adapt or die” (2009) cautions technical communicators about the demands of the twenty-first century and gives this epigraph. It can apply to teachers of professional and technical writing.

“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change” – Charles Darwin.



## REFERENCES

Abdullah, M (2003, Dec.) The impact of electronic communication on writing. *ERIC Digest*

Retrieved May 2, 2009, from <http://www.ericdigests.org/2004-1/impact.htm>

Barker, T (2009, January), Technical communicators put the public in public health. *Intercom*

Baumback, D (2009, March/April). Web 2.0 & you). *Knowledge Quest*. Retrieved May 7, 2009, from

Academic Search Premier.

BMJ Medical Publication of the Year (2006, Dec. 23) How web 2.0 is changing medicine. Retrieved

May 3, 2009, from (<http://www.bmj.com/cgi/content/full/333/7582/1283>).

Bawden, D. & Robinson, L. (2008, Nov. 21, 2008) The dark side of information:

Overload, anxiety and other paradoxes and pathologies. *Journal of Information Science*

(35, 180) Retrieved April 29, 2009, from <http://jis.sagepub.com>

Gibson, S (2009, April 9). Web 2.0 tools gain enterprise acceptance. *Tech-in-depth*. Retrieved

May 8, 2009, from ABI/Inform.

Grossman, L. (2006, Dec. 13) *Time's* Person of the year: You. Retrieved May 3, 2009, from

<http://www.time.com/time/magazine/article/0,9171,1569514,00.html>).

Hargadon, S (2008, Oct. 22) Moving toward Web 2.0 in K-12 education. Encyclopedia Britannica Blog.

Retrieved May 8, 2009, from (<http://www.britannica.com/blogs/2008/10/moving-toward-web-20-in-k-12-education>)

Harner, S. & Rich, A (May, 2005) Trends in undergraduate curriculum in scientific and technical communication. *Technical Communication Journal of the Society for Technical Communication* (52, 2209).

Hart-Davidons, W (2007, September/October). Web 2.0: What technical communicators should know. *Intercom*.

Herman, W. (2009, May 4). Texts. Twitter could improve asthma alerts. *Arizona Republic*.

Johnson-Sheehan, R. (2007). *Technical communication today*. USA: Pearson Education.

Kelley, R. (1991) Teaching technical communication. ERIC Digest. Retrieved May 2, 2009, from <http://www.ericdigests.org/pre-9218/tecnical.htm>

Ko, S., & Rossen, S. (2004). *Teaching online: A practical guide*. Boston, MA: Houghton Mifflin Company.

Mader, S. (2009, Jan.) Your wiki isn't Wikipedia. *Intercom*.

Markel, M. (2010). *Technical communication*. Boston, MA: Bedford/ St.Martins.

MLA 2008: Market realities in San Francisco (2008, December

Retrieved May 5, 2009, from <http://chronicle.com/news/article/5712/mla-2008-market-realities-in-san-francisco>

Myers, E. M. (2009, March) Adapt or die: Technical communicators of the twenty-first century. *Intercom*.

MyNaym ( 2008, March 22). YouTube, Facebook, and MySpace. Retrieved May 8, 2009, from <http://mynaym.com/archives/2008/03/22/youtube-facebook-and-myspace-used-as-evidence/>

O'Reilly, T (2006, December 10), Web 2.0 compact definition: Trying again. Retrieved May 2, 2009, from (<http://radar.oreilly.com/2006/12/web-20-compact-definition-tryi.html>

(2005, September 30) What is Web 2.0: Design patterns and business models for the next generation of software. Retrieved April 30, 2009, from <http://oreilly.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html?page=1>

Roen, D, Glau, G, & Maid, B. (2009) *The McGraw-Hill guide: Writing for college, writing for life*. New York, NY: McGraw-Hill Higher Education.

Schneider, G. & Evans, J. (2007) *The Internet*. Boston, MA: Thompson Course Technology.

Soat, J. (2007, Feb. 26). What Web 2.0 has taught workforce 2.0. *InformationWeek* Retrieved May 2, 2009, from ABI/Inform.

TechWag. (2008). Risks to blogging being fired. Retrieved May 8, 2009, from <http://techwag.com/index.php/2008/10/26/risks-to-blogging-being-fired/>

Thill, J & Bovee, C (2008). *Excellence in communication*. USA. Pearson/Prentice Hall.

Young, J. (2008, April 11). Why professors ought to teach blogging and podcasting. *The Chronicle of Higher Education* (54, 32) Retrieved May 7, 2009, from LexisNexis Academic.

