

CHAPTER 9

SOCIAL NETWORKING

QUOTE

The way of the world is meeting people through other people.
—Robert Kerrigan, Internet poster

VIGNETTE

Twitter Emerges as News Source for Iran Protesters

Twitter is a social networking service that enables its users to send and read each other's text-based posts, known as *tweets*. A tweet is supposed to answer the question "What are you doing?" in 140 characters or less. Many people use Twitter as a means of staying connected to friends, relatives, and coworkers; others use it for professional networking. Twitter users can restrict delivery of their messages to those in their circle of friends or allow access to all Twitter users. Users can also control whose tweets they receive, when they receive them, and on what devices.

The service works over multiple networks with various devices in countries around the world. Messages can be sent using the Twitter Web site (www.twitter.com) or via cell phones employing Short Message Service (SMS).

While Twitter does not release information about the number of active accounts, Nielsen Online estimated that there were 7 million unique U.S. visitors to the company's Web site in February 2009;

each visitor spent an average of about six minutes per day on the service. The year over year growth in number of users was estimated to be an amazing 1,382 percent.¹

Twitter was created by Jack Dorsey in 2006. The company is backed by a number of venture capitalists and is headquartered in San Francisco. Twitter has had some problems related to its rapid growth. The service experienced almost three and a half days of downtime during 2008, resulting from traffic overloads.² In January 2009, 33 celebrity Twitter accounts were compromised, and bogus tweets—with drug-related and sexually explicit contents—were sent from the accounts.³ A 2009 study by Nielsen Online estimated that more than 60 percent of Twitter users stop using the service within one month of joining.⁴

In June 2009, Iran held its presidential election. Within hours of the polls closing, the interior ministry proclaimed that the incumbent, Mahmoud Ahmadinejad, had defeated the reformist candidate, Mir Hossein Mousavi, by a margin of over 11 million votes. Many Iranians, reasoning that it was not possible for over 39 million paper ballots to have been counted so quickly, were extremely upset; they felt that the election had been rigged in favor of Ahmadinejad. Thousands of protesters soon took to the streets of Iran to demonstrate their frustration.

Twitter users in Iran soon began using the service to share commentary about the ongoing protests and to plan future rallies and protests. The tweets chronicling the events in Iran numbered in the tens of thousands and were highly subjective, unverifiable, and impossible to tie to sources. However, they provided an interesting insight into events taking place in Iran, especially after the Iranian authorities ordered foreign journalists to halt coverage of demonstrations, and reporters with temporary visas were ordered to leave the country.⁵ Shortly after the election, the U.S. State Department contacted Twitter and asked the company to delay a scheduled software upgrade that would have cut off daytime service to Iran. "We highlighted to them that this was an important form of communication," according to an unidentified State Department official.⁶

Throughout the period of intense protests immediately following the election, there were numerous rumors that Iranian authorities were trying to disrupt Twitter traffic. Because Internet communications in and out of Iran flow through a very small number of servers, the government could fairly easily monitor these servers and block IP addresses delivering tweets. Messages sent out via the Twitter network can be blocked in a similar fashion. In response to the rumors, supporters outside Iran set up proxy servers to relay Twitter Internet content through unblocked network addresses. It was reported that in addition to attempting to block Twitter traffic, the Iranian government began to make use of Twitter to communicate its own message.⁷

While Twitter was not responsible for the protest movement in Iran, some observers felt that Twitter “emboldened the protesters, reinforced their conviction that they [were] not alone, and engaged populations outside Iran in an emotional, immediate way that was never possible before.”⁸

Questions to Consider

1. Many people question the value of Twitter’s goal of helping people stay connected in real time. Do the events in Iran illustrate the potential value to society of social networking tools such as Twitter? Are there other ways that Twitter and other social networks could be used by people and organizations to add real value?
2. How trustworthy is the information one gleans from social networks such as Twitter?

LEARNING OBJECTIVES

As you read this chapter, consider the following questions:

1. What are social networks, how do people use them, and what are some of their practical business uses?
2. What are some of the key ethical issues associated with the use of social networking Web sites?
3. What is a virtual life community, and what are some of the ethical issues associated with such a community?

WHAT IS A SOCIAL NETWORKING WEB SITE?

A **social networking Web site** is a site whose purpose is to create an online community of Internet users that enables members to break down barriers created by time, distance, and cultural differences. Social networking Web sites allow people to interact with others online by sharing opinions, insights, information, interests, and experiences. Members of an online social network may use the site to interact with friends, family members, and colleagues—people they already know—but they may also wish to develop new personal and professional relationships.

With over 1.6 billion Internet users, there is an endless range of interests represented online, and a correspondingly wide range of social networking Web sites catering to those interests.⁹ In the United States, total minutes per month spent on social networking Web sites increased 83 percent from April 2008 to April 2009. Total minutes on Facebook grew from 1.7 billion in April 2008 to 13.9 billion in April 2009, making Facebook the number one social networking Web site when ranked by total minutes per month.¹⁰ There are thousands of social networking Web sites worldwide; Table 9-1 lists some of the most popular ones, based on the number of unique visitors per month.

TABLE 9-1 Popular social networking Web sites

Social networking Web site	Description	Number of unique visitors in January 2009
Facebook.com	Largest social networking Web site based on the number of unique visitors per month; used by members to keep up with friends, upload photos, share links and videos, and learn more about the people they meet	69 million
MySpace.com	General social networking Web site used by teenagers and adults worldwide; designed to allow members to communicate with friends via personal profiles, blogs, and groups, as well as post photos, music, and videos to their personal pages	59 million
Classmates.com	Networking site designed to help members find and keep in touch with people they knew in grade school, high school, college, and the military	17 million
Reunion.com	Site that helps members find and keep in touch with old friends, relatives, and loved ones	14 million
LinkedIn.com	Business-oriented Web site used for professional networking; users create a network made up of people they know and trust in business	11 million
imeem.com	Music sharing site that enables members to watch video clips, stream music, view photos, post to blogs and forums, join groups, and browse profiles	9 million

TABLE 9-1 Popular social networking Web sites (*continued*)

Social networking Web site	Description	Number of unique visitors in January 2009
Flixster	Networking site geared toward people interested in discussing movies and actors with other members; the site has an extensive database of information about movies and actors, and recommends new friends based on similar tastes in movies	8 million
Twitter.com	Service for friends, family members, and coworkers looking to stay connected through the frequent, quick exchange of messages that are a maximum of 140 characters	6 million

Source: Andy Kzeniac, "Social Networks: Facebook Takes Over Top Spot, Twitter Climbs," *Compete*, February 9, 2009, <http://blog.compete.com/2009/02/09/facebook-myspace-twitter-social-network>.

According to the Pew Internet & American Life Project, about 35 percent of U.S. Internet users age 18 and older have a profile on an online social networking Web site. Meanwhile, 65 percent of teenagers use social networking sites.¹¹ Table 9-2 shows some of the top social networks for adults in the United States as of May 2008.

TABLE 9-2 Most popular U.S. social networks for Internet users age 18 and older

Social network	Percent of all U.S. adult social network users with a profile on this site as of May 2008
MySpace	50%
Facebook	22%
LinkedIn	6%
Yahoo	2%
YouTube	1%
Classmates.com	1%
Others (BlackPlanet, Orkut, hi5, and Match.com)	10%

Source: Amanda Lenhart, "Adults and Social Network Websites," Pew Internet & American Life Project, January 14, 2009, www.pewinternet.org/Reports/2009/Adults-and-Social-Network-Websites.aspx.

BUSINESS APPLICATIONS OF ONLINE SOCIAL NETWORKING

While social networking Web sites are primarily used for nonbusiness purposes, a number of forward-thinking organizations are employing this technology to advertise, assess job candidates, and sell products.

Social Network Advertising

Social network advertising involves the use of social networks to inform, promote, and communicate the benefits of products and services. Social network advertising has become big business in the United States, with 2009 ad spending on Facebook estimated to be \$230 million, and ad spending on MySpace estimated to be \$495 million.¹²

Organizations are increasingly looking to new forms of advertising to reach their target markets. As Michael Wiley, director of new media at General Motors Communications, puts it, "The existing advertising paradigm sucks. It's woefully inefficient."¹³ Two significant advantages of social networking advertising over more traditional advertising media (e.g., radio, TV, and newspapers) are: (1) advertisers can create an opportunity to generate a conversation with viewers of the ad, and (2) ads can be targeted to reach people with the desired demographic characteristics.

There are several social network advertising strategies, and organizations may employ one or more of the following:

Direct Advertising

Direct advertising involves placing banner ads on a social networking Web site. An ad can either be displayed to each visitor to the Web site or, by using the information in user profiles, be directed toward those members who would likely find the product most appealing. Thus, an ad for a new magazine on mountain biking could be directed to individuals on a social networking Web site who are male, who are 18 to 35 years old, and who express an interest in mountain biking. Others on the social networking Web site would not see it.

Advertising Using an Individual's Network of Friends

Companies can use social networking Web sites to advertise to an individual's network of contacts. When you sign on to your favorite social networking Web site, you might see a message saying, "Jared [your friend] just went to see Transformers II—awesome, he says!" This can be an extremely persuasive message, as people frequently make decisions to do something or purchase something based on input from their close group of friends. This might be a spontaneous message sent by Jared, or Jared might be getting paid by an online promotion firm to send messages about certain products. There are certainly ethical issues with this approach, as some people consider this to be exploiting an individual's personal relationships for the financial benefit of a company.

Indirect Advertising Through Groups

Innovative companies are also making use of a new marketing technique by creating a group on a social networking Web site that interested users can join by becoming "fans." These groups can quickly grow in terms of numbers of fans to become a very effective marketing

tool for a company looking to market contests, promote new products, or simply increase brand awareness.

In its ongoing fight for market share in the beverage industry, Coca-Cola has implemented a number of social networking initiatives to promote its brands. Coke has its own corporate blog called Coca-Cola Conversations that covers its brand history and provides information about Coca-Cola collectibles. In April 2007, Coke started a competition for the residents of the Second Life virtual world, challenging them to design a vending machine that dispenses the essence of Coke. The company also placed a video on YouTube called "Mean Joe Greene—The Making of the Commercial," documenting the making of one of Coke's most famous TV commercials.

In August 2008, two fans of Coke, neither of whom had any official connection to the company, launched a Coca-Cola Facebook page. Within a few weeks, the page had attracted over 750,000 fans. As the number of fans grew into the millions, the page's creators agreed to turn over administration of the page to Coca-Cola.¹⁴ The site is monitored by software filters for offensive words and phrases, and live moderators check its pages for anything truly offensive. Other than that, Coca-Cola managers pretty much let Facebook fans say what they want on the site.¹⁵ The result has been nothing short of amazing. The Facebook fan page quickly grew to over 3 million members worldwide.¹⁶ It is now the second most popular page on Facebook, with 3.3 million members as of March 2009.¹⁷

Company-Owned Social Networking Web Site

A variation on the above approach is for a company to form its own social networking Web site. Dell created its own social networking Web site, IdeaStorm, as a means for its millions of customers in more than 100 countries to talk about what new products, services, or improvements they would like to see Dell develop. Since its launch in February 2007, the Dell community has suggested 11,996 ideas and posted 84,851 comments; Dell has implemented 350 customer-submitted ideas.¹⁸

Viral Marketing

Viral marketing encourages individuals to pass along a marketing message to others, thus creating the potential for exponential growth in the message's exposure and influence as one person tells two people, each of those two people tell two or three more people, and so on. The goal of a viral marketing campaign is to create a buzz about a product or idea that spreads wide and fast. A successful viral marketing campaign requires little effort on the part of the advertiser; however, the success of such campaigns can be very difficult to predict.

Hotmail created what is recognized by many as the most successful viral marketing campaign ever when it first launched its service in 1996. Every e-mail sent by a Hotmail user contained a short message at the end of the e-mail that promoted Hotmail's free e-mail service. As a result, almost 12 million new users signed up for Hotmail over a period of 18 months.¹⁹

The Use of Social Networks in the Hiring Process

Employers can and do look at the social networking profiles of job candidates when making hiring decisions (see Figure 9-1). According to a recent survey by CareerBuilder.com, 22 percent of hiring managers use social networking Web sites as a source of information about candidates, and an additional 9 percent are planning to do so. Of those managers who

use social networking Web sites to screen candidates, 34 percent have found information that made them drop a candidate from consideration. Companies may reject candidates who post information about their drinking or drug use habits or those who post provocative or inappropriate photos. Candidates are also sometimes rejected due to postings containing discriminatory remarks relating to race, gender, and religion or because of postings that reveal confidential information from previous employers.²⁰

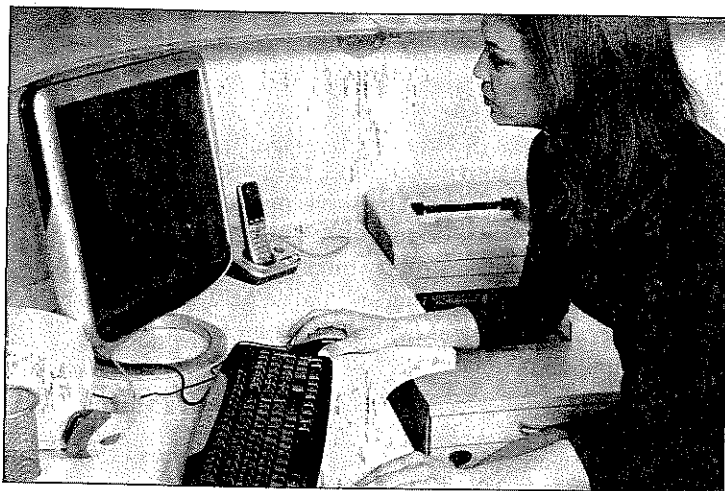


FIGURE 9-1 Employers often use social networking Web sites as a source of information about job candidates

Employers can legally reject a job applicant based on the contents of the individual's social networking profile as long as the company is not violating federal or state discrimination laws. For example, an employer cannot legally screen applicants based on race or ethnicity. Or suppose that by checking a social networking Web site, a hiring manager finds out that a job candidate is pregnant and makes a decision not to hire that person based on that information. Refusing to hire on the basis of pregnancy is prohibited by the Pregnancy Discrimination Act, which amended Title VII of the Civil Rights Act of 1964. The employer would be at risk of a job employment discrimination lawsuit.

Members of social networking Web sites frequently provide sex, age, marital status, sexual orientation, religion, and political affiliation data in their profile. Users who upload personal photos may reveal a disability or their race or ethnicity; therefore, without even thinking about it, an individual may have revealed data about personal characteristics that are protected by civil rights legislation. Some human resource executives feel that they can use social networking Web sites to "learn a little about the candidate's cultural fit and professionalism."²¹

Another survey done by CollegeGrad.com revealed that 47 percent of college graduates who use social networking Web sites change the contents of their pages as a result of their job search.²² Many jobseekers delete their Facebook or MySpace account altogether because they know employers check such sites. More graduates are beginning to realize that

pictures and words posted online, once intended for friends only, are reaching a much larger audience and could have an impact on their job search.²³

Social Shopping Web Sites

A **social shopping Web site** brings shoppers and sellers together in a social networking environment in which members can share information and make recommendations while shopping online. Thus, these sites combine two highly popular online activities—shopping and social networking. Social shopping Web site members can typically build their own pages to collect information and photos about items in which they are interested. On many social shopping Web sites, users can offer opinions on other members' purchases or potential purchases. The social shopping Web site Stuffpit has implemented a reward system for members, in which they are paid a commission each time another shopper acts on their recommendation to purchase a specific item.²⁴

There are numerous social shopping Web sites, a few of which are summarized in Table 9-3.

TABLE 9-3 Sample of social shopping Web sites

Social shopping site	Brief description
Buzzillions	Product review Web site that collects thousands of product reviews from the Web sites of various retailers
Crowdstorm	Shopping resource that aggregates product information from various online buyers guides, reviews, and blog postings
Kaboodle	Site where members can discover and recommend new products; get discounts; and locate bargains
OSOYOU	UK-based social shopping site for women with an interest in fashion and beauty products
ZEBO	Site that allows members to create a personal profile about what they own, want, and love to shop for; members can check out one another's profiles, provide shopping tips, and chat online to ask questions and get advice

Social shopping Web sites generate revenue through retailer advertising. Some also earn money by sharing with retailers data about their members' likes and dislikes.

Social shopping Web sites can be a great way for small businesses to boost their sales. Amenity Home—a tiny start-up with just three products, four employees, and no advertising budget—became a retailer on ThisNext.com, a social shopping Web site whose goal is to link shoppers with hard-to-find products. Shoppers at ThisNext.com found the Amenity Home products, copied photos of the products to their own blog pages, and brought the tiny firm some much-needed recognition—Amenity Home products started getting more and more hits on ThisNext.com.²⁵

Retailers can purchase member data and comments from some social shopping Web sites to find out what consumers like and don't like, and what they are looking for in items sold by the retailer. This can help the retailer design product improvements and come up with ideas for new product lines.

SOCIAL NETWORKING ETHICAL ISSUES

When you have a community of tens of millions of users, not everyone is going to be a good “neighbor” and abide by the rules of the community. Many will stretch or exceed the bounds of generally accepted behavior. Some of the common ethical issues that arise for members of social networking Web sites are cyberbullying, cyberstalking, encounters with sexual predators, and the uploading of inappropriate material.

Cyberbullying

Cyberbullying is the harassment, torment, humiliation, or threatening of one minor by another minor or group of minors via the Internet or cell phone. According to a recent survey of over 800 students ages 13–17, about 43 percent had experienced cyberbullying in the past year. Cyberbullying is more common among females and among 15- and 16-year-olds (see Figure 9-2).²⁶

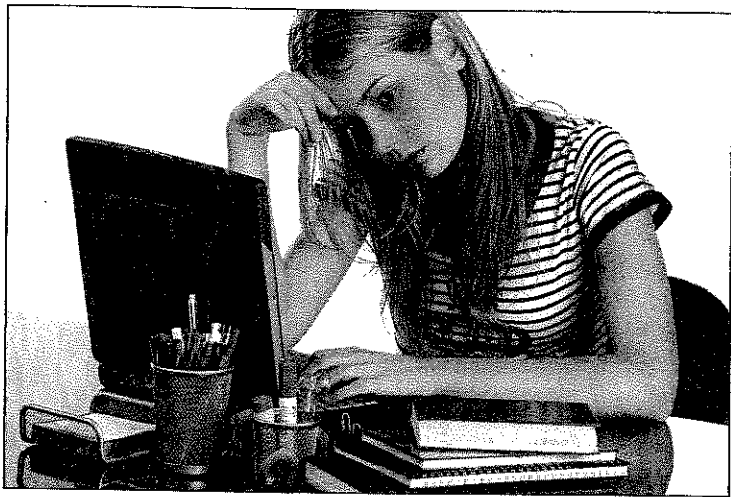


FIGURE 9-2 Cyberbullying is more common among teenage females

Cyberbullying has sometimes become so intense that some children have committed suicide as a result. Ryan Halligan, a 13-year-old boy in Vermont, committed suicide after bullying from his schoolmates and cyberbullying online. Megan Meier, a 13-year-old girl from Missouri, also committed suicide when she was harassed by a fictitious boy created by neighbors with whom she had had a falling out (see Case #1 at the end of this chapter).²⁷ As a result of these incidents, several states—including Arkansas, Delaware, Idaho, Iowa, Michigan, Minnesota, Nebraska, New Jersey, Oklahoma, Oregon, South Carolina, and Washington—have enacted laws to curb cyberbullying by calling on school districts to develop policies regarding cyberbullying detection and punishment.²⁸

There are numerous forms of cyberbullying, such as the following:

- Sending mean-spirited or threatening messages to the victim
- Sending thousands of text messages to the victim's cell phone and running up a huge cell phone bill
- Impersonating the victim and sending inappropriate messages to others
- Stealing the victim's password and modifying his or her profile to include racist, homophobic, sexual, or other inappropriate data that offends others or attracts the attention of undesirable people
- Posting mean, personal, or false information about the victim in the cyber-bully's blog
- Creating a Web site whose purpose is to humiliate or threaten the victim
- Taking inappropriate photos of the victim and either posting them online or sending them to others via cell phone
- Setting up an Internet poll to elicit responses to embarrassing questions, such as "Who's the biggest geek in Miss Adams's homeroom?" and "Who is the biggest loser in the senior class?"
- Sending inappropriate messages while playing interactive games that enable participants to communicate with one another

Because cyberbullying can take many forms, it can be difficult to identify and stop. Ideally, minors would inform their parents if they became a victim of cyberbullying. Unfortunately, this often does not happen. When school authorities do get involved in an effort to discipline students for cyberbullying, they are sometimes sued for violating the student's right to free speech, especially if the activity occurred off school premises. As a result, some schools have modified their discipline policy to reserve the right to punish a student for actions taken off school premises if they adversely affect the safety and well-being of a student while in school.

All children should be educated about the potential serious impacts of cyberbullying, how to identify cyberbullying, and why it is important for them to refrain from cyberbullying. Children should be encouraged not to retaliate to mean-spirited messages, as doing so may cause the harassment to increase. Children need to understand that they can become inadvertent cyberbullies if they fail to think through the consequences of their actions. They should also be counseled against posting any data that is too personal, such as phone numbers, their home address, their school, or any other information that could allow a stranger to locate the child.

Cyberstalking

Cyberstalking is threatening behavior or unwanted advances directed at an adult using the Internet or other forms of online and electronic communications; it is the adult version of cyberbullying. Online stalking can be a serious problem for victims, terrifying them and causing mental anguish. It is not unusual for cyberstalking to escalate into abusive or excessive phone calls, threatening or obscene mail, trespassing, vandalism, physical stalking, and even physical assault. Over a dozen states have passed laws prohibiting cyberstalking. "Estimates from Internet safety groups such as Working to Halt

Online Abuse, SafetyEd, and Cyber Angels reveal an increasing number of cyberstalking reports, with 50 to 500 requests per day for help from victims of cyberstalking.”²⁹ Many researchers feel that it is likely that the true extent of cyberstalking has been underestimated, since the number of people online is increasing each year and many cases still go unreported.³⁰

In 2007, a New Mexico woman, Devon Lynn Townsend, was convicted of hacking into a Yahoo! server to gain access to the personal e-mail account of Chester Bennington, lead singer of the band Linkin Park. Townsend was able to secretly change the password to Bennington’s account so that she could view all the messages sent and received from the account. This enabled her to view photos of Bennington’s children; read business correspondence; see information about his family and the band’s travel plans; learn the date and location of the Benningtons’ childbirth classes; and view information about a new home the Benningtons had purchased, including the home inspection report and photos of the house. Townsend was also able to gain access to Bennington’s voice mail and listen to all the messages left on his phone answering service. She used this information to download copies of the Benningtons’ wedding pictures, contact the Benningtons and their friends anonymously, and travel to locations where Chester Bennington might be. Townsend was sentenced to two years in a federal prison camp in Arizona.³¹

The National Center for Victims of Crime offers a detailed set of recommended actions for combating cyberstalking, including the following:

- When the offender is known, victims should send the stalker a written notice that their contact is unwanted and that all further contact must cease.
- Evidence of all contacts should be saved.
- Victims of cyberstalking should inform their ISP provider as well as the stalker’s ISP, if possible.
- Victims should consider speaking to law enforcement officers.
- Above all else, victims of cyberstalking should never agree to meet with the stalker to “talk things out.”³²

Encounters with Sexual Predators

Some social networking Web sites have been criticized for not doing enough to protect minors from encounters with sexual predators. MySpace spent two years purging potential problem members from its site, including 90,000 registered sex offenders, who were banned from its site in early 2009. (It is estimated that there are over 700,000 sex offenders in the United States.)³³ “Almost 100,000 convicted sex offenders mixing with children on MySpace . . . is absolutely appalling and totally unacceptable,” stated Attorney General Richard Blumenthal of Connecticut, who is pushing social networking Web sites to adopt stronger safety measures.³⁴

Uploading of Inappropriate Material

Most social networking Web sites have policies against uploading videos depicting violence or obscenity. Facebook, MySpace, and most other social networking Web sites have terms of use agreements, a privacy policy, or a content code of conduct that summarizes key legal aspects regarding use of the Web site. Typically, the terms state that the Web site has the right to delete material and terminate user accounts that violate the site’s policies. The

policies set specific limits on content that is sexually explicit, defamatory, hateful, or violent, or that promotes illegal activity.³⁵

Policies do not stop all members of the community from attempting to post inappropriate material, and most Web sites do not have sufficient resources to review all material submitted for posting. For example, about 10 hours of media is being uploaded to YouTube every minute.³⁶ Quite often, it is only after other members of a social networking Web site complain about objectionable material that such material is taken down. This can be days or even weeks. Ideally, reviewers would also look at the text content submitted to a networking site—not just photos and videos. A posting to a teenage-oriented Web site may advocate underage drinking, sex, and drug use without the use of photos or videos.

Individuals who appear in photos or videos doing inappropriate things may find themselves in trouble with authorities if those photos and videos end up on the Internet. Several students at East Grand Rapids High School in Michigan were given two-week suspensions from sports, a school-sponsored dance, and other extracurricular activities when some parents reported seeing online photos of students drinking alcohol at parties. While none of the parties happened on school grounds, the school has a student conduct code that states that students involved in extracurricular activities can be disciplined for code violations.³⁷

In April 2008, six teenagers recorded their beating of 16-year-old Victoria Lindsay and planned to post the video on MySpace and YouTube. The beating was severe enough that Victoria suffered temporary damage to her sight and hearing. According to YouTube, the video was never uploaded, and a YouTube spokesperson stated that “if a video shows someone getting hurt, attacked, or humiliated, it will be removed.” A MySpace employee confirmed that the video was never uploaded to that site. MySpace has a dedicated content review team that views every video before it is posted to ensure that the poster is not violating the MySpace terms of use.³⁸

On May 20, 2009, an organized group of users uploaded video clips of explicit adult content to YouTube. The video clips were uploaded with no warning that they were for adults only. Even worse, they were tagged with child-friendly identifiers, such as “Jonas Brothers.” YouTube worked quickly to remove the video clips; however, the video search results and their explicit thumbnails showed up in searches for days.³⁹

ONLINE VIRTUAL WORLDS

An **online virtual world** is a computer-simulated world in which a visitor can move in three-dimensional space, communicate and interact with other visitors, and manipulate elements of the simulated world. Virtual worlds are usually thought of as alternative worlds where visitors go to entertain themselves and interact with others. A visitor to a virtual world represents him- or herself through an **avatar** (see Figure 9-3), a character usually in the form of a human but sometimes in some other form. Avatars can typically communicate with each other via text chat or via voice using Voice over IP.

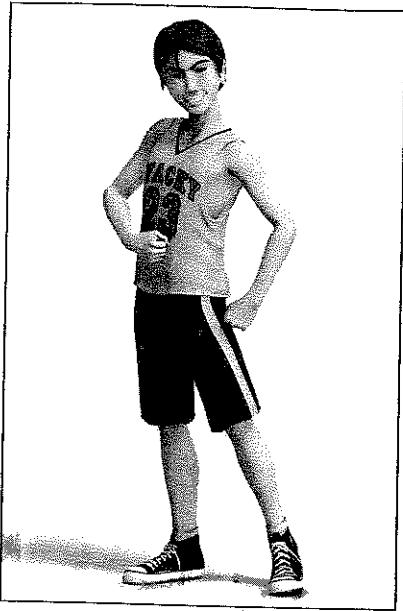


FIGURE 9-3 An avatar is a representation of a virtual world visitor

Avatars in many virtual worlds can shop, hold jobs, run for political office, develop relationships with other avatars, take a test drive in a virtual world car, and even engage in criminal activities. Avatars may promote events and hold them in the virtual world (e.g., garage sales or concerts). Avatars can even start up new businesses and create or purchase new entities, such as houses, furnishings for their houses, clothing, jewelry, and other products. Avatars use the virtual world's currency to purchase goods and services in the virtual world. The ownership of such items is recognized by other avatars in the virtual world—for example, this is John's house; others may not occupy it without his permission.

Avatars can earn virtual world money by performing tasks in the virtual world, or their owners can purchase virtual world money for them using real world cash. In some virtual worlds, avatars can convert their virtual world money back into real dollars at whatever the going exchange rate is by using their credit card at online currency exchanges. Virtual world items may also be sold to other virtual world players for real world money. A virtual world may also support e-commerce and allow users to sell their own real products (e.g., autos and time-share vacations) within the real world.

Most virtual worlds have rules against offensive behavior in public, such as using racial slurs or performing overtly sexual actions. However, consenting adults can travel to private areas and engage in all sorts of socially unacceptable behavior.

Table 9-4 lists some of the most popular online virtual worlds.

TABLE 9-4 Popular virtual worlds

Virtual world	Description
Coke Studios	Virtual world in which teens and young adults can create customized music mixes in a virtual music studio, play them for other members, and receive ratings for each mix; favorable ratings allow members to earn points that can be used to purchase virtual furnishings for their personal studio areas
Disney's Toontown Online	Disney's virtual world, designed for children as young as seven years old; visitors can play games, dress their cartoon avatars, and communicate with other visitors through a drop-down menu of phrases
Habbo Hotel	Virtual world for teens, built around a hotel theme; visitors can purchase furniture to decorate their guest rooms or mingle in the lobby
Second Life	Highly imaginative three-dimensional world that is appealing to young adults; avatars are very customizable, and users can change every micro-pixel of their avatar's shape, size, and color
The Sims Online	A networked version of the Sims computer game, targeted at teens and young adults; the object of the game is to earn as much currency as possible to furnish one's virtual home with beautifully rendered household objects

Source: Virtual Worlds Review, www.virtualworldsreview.com/index.shtml.

Crime in Virtual Worlds

Virtual worlds raise many interesting questions regarding what is a criminal act and whether law enforcement—real or virtual—should get involved in acts that occur in virtual worlds. Some virtual activities are clear violations of the law—for example, trafficking in actual drugs or stolen credit cards. Other virtual activities, such as online muggings and sex crimes, can cause real life anguish for the human owners of the avatars involved but may or may not rise to the level of a real life crime.

The following list includes examples of unethical and criminal activities in a variety of virtual worlds:

- Authorities in Germany investigated an incident of virtual abuse in Second Life after they were sent photos of an animated child character engaging in simulated sex with an animated adult figure. Such activity could violate German laws against child pornography even though both animated characters were created by adults.⁴⁰
- In The Sims Online, a number of players formed a "Sim Mafia" and attacked the avatars of unpopular players. The group would send a flood of insulting messages to the targeted character, then trash the target's virtual property, and finally demand that the target delete his or her avatar from the game.⁴¹
- Some regions in the World of Warcraft, an extremely popular online game, have become so lawless that gangs of animated characters frequently attack lone avatars, stealing their virtual belongings and sometimes murdering them.⁴²
- A man playing the Lineage II online game was arrested by Japanese officials for using software to mug avatars and then sell the stolen virtual items for real money.⁴³

- A Chinese player of the online game Mir 3 murdered another player because that player had borrowed a high-value saber and then sold it at an online auction site.⁴⁴
- A player of the online game MapleStory became so upset about her sudden divorce from her online husband that she logged onto the game with her virtual world husband's ID and password and killed his avatar. The woman was arrested by Japanese police and jailed on suspicion of illegally accessing a computer and manipulating electronic data. Under Japanese law, she could be imprisoned up to five years or fined up to ¥5,000.⁴⁵

Bad deeds done online can often be mediated by the game administrators, who can take action according to the rules of the game and with consequences internal to the game. It is only when the harm reaches the real world that victims should look to criminal law to protect them.

Educational and Business Uses of Virtual Worlds

Virtual online worlds are also being used for education and business purposes. The New Media Consortium (NMC) is an international consortium of almost 300 organizations focused on exploring the use of new media and technologies to improve teaching, learning, and creative expression. The NMC attracts nearly 1,500 unique visitors to its Second Life campus each week. Princeton, Yale, the University of Southern California, Ball State, and New York University are just a few of the schools with a campus in Second Life.⁴⁶

Media Grid's Immersive Education Initiative is an international collaboration of universities, research institutes, and companies to define and develop open standards, best practices, platforms, and game-based learning and training systems. Amherst College, Boston College, the City of Boston, Loyola Marymount University, Massachusetts Institute of Technology, and Seton Hall University are some of the members of the Media Grid.⁴⁷

Members of the New Media Consortium and the Media Grid can conduct classes and meetings from within a growing number of virtual learning worlds. They can also build custom virtual learning worlds, simulations, and learning games. The virtual reality experience provides participants with a real sense of being there when attending a virtual class or conference. Experienced designers can develop virtual classes that immerse and engage students in the same way that today's video games grab and keep the attention of players.

Second Life is used by the marketing firm Rivers Run Red as a virtual meeting place to display ads, posters, and other designs in three-dimensional settings for clients and partners around the world. Using virtual meeting space can cut weeks off the time that would be required to transport the actual materials back and forth for a real world meeting.⁴⁸

Northrop Grumman Corporation (NGC) is a global security company with 120,000 employees.⁴⁹ As part of its efforts to explore emerging technologies to improve collaboration, NGC built a simulation of its Combat Information Center (CIC) in Second Life to provide a real-to-life training experience for its future operators. The CIC is located inside a scale virtual model of the USS *Blue Ridge*—the command and control ship for the Seventh Fleet. In the real world, the CIC consists of numerous powerful computers distributed throughout the ship.

Data from worldwide sources are entered into a single integrated database that provides a complete tactical picture of air, surface, and subsurface contacts—enabling the fleet commander to quickly assess and concentrate on any situation that might arise.⁵⁰ Up to 10 trainees sit side-by-side, practicing their functions simultaneously using the Second Life simulation. The trainees can run through a number of different scenarios, ranging from an attack on a member of the fleet by an enemy submarine, to a mission to provide support for a Navy Seal team conducting a search and rescue mission. Trainees do not need to be transported to the real USS *Blue Ridge* to train, and the impact of a training mistake is minimized with no risk to life or equipment.⁵¹